

# 2019-2020 UNDERGRADUATE CATALOG

**\*\*\*ALL INFORMATION CONTAINED IN THIS DOCUMENT IS ACCURATE AS OF JULY 1, 2019.\*\*\***

**\*\*\*WEB ADDRESSES ARE PROVIDED WITHIN THIS DOCUMENT WHERE APPROPRIATE  
TO DIRECT THE READER TO UP-TO-DATE/REVISED INFORMATION.\*\*\***

This catalog contains requirements, regulations, facts, and descriptions which are subject to change at any time. The University specifically reserves the right and authority to alter and amend any and all statements contained herein. The educational policies and procedures are continually reviewed and changed in keeping with the educational mission of the University. Consequently, the catalog is not a contract and is intended to be used only as an informational guide. Students are responsible for keeping informed of official policies and regulations and for meeting all appropriate requirements. Current information is available at the Registrar's Office, in other appropriate offices, and on the LHU website.

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If you are experiencing an EMERGENCY situation at any time 24 hours a day:

CALL PUBLIC SAFETY/LAW ENFORCEMENT --- **570-484-2278**

or

CALL **711 FROM ANY CAMPUS PHONE**

or

CALL **911 FROM HOME PHONE OR CELL PHONE IF OFF CAMPUS**

## OVERVIEW OF THE UNIVERSITY

### Social Equity

The Social Equity Office has responsibility to ensure all individuals are provided equal opportunity in employment and education at the University as provided for in the Lock Haven University **Nondiscrimination Policy and Complaint Procedure** and/or **Sexual Harassment Policy and Complaint Procedures**.

### Nondiscrimination Policy Statement

It is the policy of Lock Haven University to provide equal opportunity in employment and education to all individuals without regard to race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity, age, handicap/disability, veteran status, or genetic information.

All employees, students, contractors, and vendors are to comply with federal laws, state laws, regulations, and policies that relate to nondiscrimination. The coverage of this policy extends to visitors on Lock Haven University campuses.

The link to the Nondiscrimination and Complaint Procedure Policy is <http://www.lockhaven.edu/hr/socialequity.html>.

All general inquiries concerning discrimination should be submitted to the Office of Human Resources and Social Equity. Information is provided below for external contact information for the Office of Civil Rights. The Nondiscrimination and Complaint Procedure Policy also includes information and contacts for reporting complaints covered by the Americans with Disabilities Act and/or Section 504 of the Rehabilitation Act of 1973.

U.S. Department of Education  
Office for Civil Rights  
Lyndon Baines Johnson Department of Education Bldg  
400 Maryland Avenue, SW  
Washington, DC 20202-1100  
Telephone: 800-421-3481  
Email: [OCR@ed.gov](mailto:OCR@ed.gov)

### Sexual Harassment Policy Statement

It is the policy of Lock Haven University to prohibit sexual harassment. Lock Haven University is committed to providing a learning and working environment that enhances the dignity and worth of every member of our community. To this end, the community must be free of sexual harassment.

All employees, students, contractors and vendors are to comply with federal laws, state laws, regulations, and policies that relate to sexual harassment. The coverage of this policy extends to visitors on Lock Haven University campuses.

The link to the Sexual Harassment and Complaint Procedures Policy is: <http://www.lockhaven.edu/hr/socialequity.html>.

Any individual having an inquiry, complaint, or referral with regard to discrimination covered by Title IX should contact Ms. Deana Hill, Title IX Coordinator and Associate Vice President of Human Resources, telephone 570-484-2014 or email to [dhill@lockhaven.edu](mailto:dhill@lockhaven.edu).

### Alumni Association

The Lock Haven University Alumni Association was founded in 1887 and has served through the years as the continuing tie between the alumni and their alma mater. Its members include more than 30,000 living graduates and former students with known addresses.

The Alumni Association provides the alumni of LHU with opportunities to share their memories and remain active participants in the university community through communications and specific programs. This is accomplished through regional receptions from coast to coast; planned events for Homecoming; **The Haven**, the university/alumni magazine which is published two times a year; and the alumni homepage ([www.alumni.lhup.edu](http://www.alumni.lhup.edu)) which is dedicated to informing alumni of upcoming events, benefits and opportunities available to them as well as current news about the university.

The office of Alumni Relations, located in Durrwachter Alumni Conference Center, is the center of alumni activities on campus. The office maintains the alumni records, assists in conducting the affairs of the association and serves as the communication center for all alumni inquiries. Alumni are always welcome and should feel free to visit the campus on any occasion.

## **Campus and Physical Plant**

Lock Haven University's (LHU) physical assets are divided among three distinct sites: Main Campus in the City of Lock Haven; Clearfield Campus in Lawrence Township, Clearfield County; and Sieg Conference Center in Porter Township, Clinton County. The three sites combined include 39 buildings (including Fairview Suites ) encompassing 1,671,963 gross square feet. Total acreage owned by LHU is 332.98 acres which includes 44 acres at Sieg Conference Center.

### **Academic and Auxiliary Buildings**

*(Identification of the person whose name the building carries is noted parenthetically)*

**Akeley Building** (Archibald Paul Akeley, Potter County Schools superintendent and trustee) - Completed in 1930 and formerly known as the Campus School, this building contains classrooms, the department of Business and Computer Science offices, computer laboratories, and the Office of the Dean of the Poorman College of Business, Information Systems & Human Services.

**Bentley Hall** (Deborah M. Bentley, college dietician, 1923-1957) - A food service building, opened in 1966. More than 800 students can be served at one sitting in the dining area. Also in this building are the faculty/staff dining facility and the Bentley food court and convenience store. Completely renovated in 2007.

**Bowes Hall** (Ron and JoAnn Bowes) - Houses athletic coaches' offices. Bowes Hall was renamed in May of 2016 in honor of long-time LHU donors, Ronald ('66) and JoAnn Bowes. Bowes Hall was completely renovated in the summer of 2014.

**Durrwachter Alumni Conference Center** (Dr. George, alumnus 1961 and trustee, and Mrs. Shirley Durrwachter) – Office of Alumni Relations, Admissions, Department of Marketing and Communications. This facility also includes rooms for conferences, receptions and large public gatherings, and is available for various functions.

**East Campus** – Purchased from Keystone Central School District in 2003, East Campus is comprised of an administration/classroom building; a gymnasium building housing a food service area, classrooms, and gymnasium; the science center building; and surrounding property. The buildings house Purchasing and Business Office, Human Resources, the Small Business Development Center, Social Equity, the sciences, and criminal justice.

**Facilities Building** – Purchased in 2003 from Keystone Central School District. Presently houses the Facility Department.

**Glennon Building** (Katherine A. Glennon, R.N., college nurse, 1941-1967 - Completed in 1967) – Home to Public Safety and Health Services. Medical staff members available Monday through Saturday. Public Safety provides campus security, parking control, and other safety services.

**Himes Building** (Jesse Scott Himes, elementary education teacher, 1920-1936) - Himes was completed in 1961 for use as a Special Education building. Today, it houses the department of Recreation Management.

**Honors House** – Built in 1940 as the home for the Lock Haven State Teachers College Maintenance Superintendent. After 1990 this 3,435 square foot building was turned over to the departments of Recreation Management and the Honors Program. In 2010, the use of the building changed once again to house only the Global Honors Program.

**Hursh-Nevel Maintenance Building** (George B. Hursh, 1898-1941; E. Ross Nevel, Sr., 1941-1956; superintendents of buildings and grounds) - Completed in 1968, the building houses maintenance equipment, duplicating, mailroom, a receiving/storage area, and a garage for university vehicles/equipment.

**Jack Stadium** (Hubert H. Jack, professor of health and physical education, coach of football and wrestling, 1943-1968 – Originally completed in 1975) – The stadium complex is home to the LHU football program, track and field and some non-grass soccer games. The artificial turf and eight-lane running track were replaced in 2018.

**Parsons Union Building** (Richard T. Parsons, Ed.D., alumnus '31, president, 1942-1970) - Completed in 1968, expanded and rededicated in 1993, the Student Union contains the University Store, Student Activities Office, Eagle Eye student newspaper as well

as several other student organizations. Recreation facilities include a game room, TV viewing, conference rooms and a commuter lounge. Major renovations to this building were completed in 2016.

**Price Performance Center** (Philip M. Price, donor of land on which the university was originally built) - The center, constructed in 1938, has a seating capacity of 672 and was completely renovated and reopened in 1989. The building features an extensive electronic music lab and a center for student testing and evaluation. Another renovation to this building was done in the summer of 2017.

**Raub Hall** (Albert N. Raub, Ph.D., first principal of Central State Normal School, 1877-1884) - Completed in 1964, this classroom building also houses the department of History, Political Science, and Foreign Language, and the department of English. This building features a state-of-the-art distance education classroom.

**Robinson Hall** (Gerald R. Robinson, Ed.D., professor, dean of instruction, Provost/Executive Vice President, 1954-1976) - This seven-story multi-purpose building was completed in 1981. It houses the departments of Education-PreK-8 and Professional Studies, Special Education, Sport Studies, Psychology, Mathematics, and Communications and Philosophy. The building also contains the Hamblin Hall of Flags, a television studio, a radio station, and a developmental mathematics facility devoted to remediation and placement testing. The Departments of Technology Infrastructure and Information Resources, located in Robinson Hall, are responsible for the management of all campus technology and information systems. Robinson Hall houses the university's primary datacenter and network core, which connects all campus buildings to the central servers as well as the State System of Higher Education network and the Internet. Robinson has been approved for a major renovation in the near future.

**Rogers Gymnasium** (James H. Rogers, alumnus '49, an athlete, World War II veteran, and popular high school teacher who died shortly after receiving his degree) - This is the oldest building on campus dating from 1896 and is used for classes in physical education, intramurals, sport practice and weight training.

**Sieg Conference Center** (donated to the university in 1965 by the Cerro Corporation of Bellefonte, Pennsylvania, and named to honor the William Sieg family who were instrumental in donating this facility to the university) - The property consists of 44 acres of woodland and is located in the "Narrows" of Fishing Creek, approximately three miles east of Lamar on Route 780 (25 minutes from the university). There is a large main lodge equipped to feed up to 200 people and bunkhouses which will accommodate 40 people. The center offers ideal facilities for a variety of uses such as seminars, conferences, training courses, staff meetings, outdoor class meetings, camping, outings, picnics and recreation. (The fishing in Fishing Creek, incidentally, is excellent.) The center may be scheduled for use by day, overnight or weekends.

**Sloan Fine Arts Building** (John Sloan, internationally renowned artist, born in Lock Haven) - Completed in 1973, the building contains classrooms, practice rooms, art studios, faculty offices, a small theatre, and a large theatre for student and professional performances and lectures. Housed here is the department of Visual and Performing Arts.

**Stevenson Library** (George B. Stevenson, graduate 1906, state senator, trustee) - The library, completed in 1969, contains books, journals, DVDs, educational curriculum materials, and media equipment; two computer labs; and space for individual and group study. The library's databases provide access to thousands of e-books and e-journals. Librarians provide research assistance, in-class instruction, and consultations. The second floor holds the University Archive, the Helen Burgess Terrill Archive Treasury Room and the Stephanie A. Wollock Learning Commons, which includes the University Writing Center and the Schantz Tutorial Center, and collaborative study spaces. The Academic Technology Department is on the ground floor. A new entryway was completed during the summer of 2017.

**Student Recreation Center (SRC)** opened its doors in April 2002. The 42,825 sq. foot facility has been a significant addition to student life at LHU. The SRC houses three multipurpose courts which can be used for basketball, volleyball, tennis or badminton. Also included in the building is a dance/exercise room for aerobics, yoga and other isolated programs. A fitness room is available for use with free weights, nautilus-style machines, and dumbbells. A 1/9<sup>th</sup> mile track is also located in the facility. An indoor climbing wall, standing at a height of 30', is available for use by LHU students.

**Thomas Fieldhouse** (David W. Thomas, M.D., alumnus 1906, trustee) - This facility, built in 1938, was completely renovated in 1984. It is used for athletic competition and practices. It is also used for varied University events. It contains a large wrestling room, main arena, press box, training rooms, offices for faculty and coaches, classrooms, and locker/shower accommodations. The Director of Athletics, Director of Sports Information, and the offices of a number of coaches are located here.



**Ulmer Hall** (Levi J. Ulmer, science and geography teacher, 1918-1941) - The main building, constructed in 1950 with a large addition added in 1968 included a planetarium, classrooms, labs and offices. Ulmer was renovated in 1996. This building was previously the main science building until construction of the East Campus Science Center. Ulmer now contains the office of Financial Aid, Student Accounts, Registrar, Dean of Residence and Student Life, Center for Global Engagement, Center for Career and Professional Development, ROTC, Center for Excellence and Inclusion, Counseling Services, the Pennsylvania State Athletic Conference Office and LHU's offices of Senior Administration. Major renovations were completed in Ulmer over the summers of 2014 and 2015. The LHU seal was added to the main front of the building.

**Willis Health Professions Center** (Craig Dean Willis, President, 1982-2004) – Purchased from Keystone Central School District in 2006. This 43,146 square foot building contains the departments of Health Sciences, Physician Assistant, and the Facilities Maintenance Shop.

**Zimmerli Gymnasium** (Elizabeth K. Zimmerli, Ed.D., director of health and physical education, 1946-1966) - Completed in 1970, contains three teaching gymnasiums, a swimming pool, dressing/locker/shower facilities offices for the departments of Health and Physical Education and Sports Studies, and classrooms.

### Residence Halls

**Campus Village** – An apartment complex which houses 170 students.

**Fairview Suites** – Located on North Fairview Street. Opened in fall 2012. Two-person, suite-type facility housing 686 students and staff. Operated by University personnel.

**North Hall** (William R. North, Ph.D., chairman of the English Department, 1935-1963) - Completed in 1967, North Hall provides a scenic view of the campus area and the river beyond. It houses 200 students. Operated by University personnel.

**Smith Hall** (Samuel Jacob Smith, teacher of math, 1927-1958) - Completed in 1960, Smith Hall houses up to 250 students, includes single units, and is located on the lower part of the campus. Smith Hall is slated for deferred maintenance renovations during the summers of 2018 and 2019.

**Woolridge Hall** (Harold D. Woolridge, alumnus '11, trustee, 1932-1960) - Completed in 1964 and housing 200 students, Woolridge Hall is located on the lower part of the university campus. A major deferred maintenance renovation projects was completed during the summer of 2017.

All residence halls provide kitchen, recreation lounge, coin and card operated laundry, and study facilities. Wifi is available in all University operated residence halls. Computer laboratories located in all residence halls link students to the campus network.

### Foundation Owned Housing

**Evergreen Commons** – Completed in 2003 and housing 408 upper-class students, Evergreen Commons provides a suite style environment with single rooms, a common living area, a kitchen, full size washer and dryer and full kitchen with stove, refrigerator, garbage disposal and dishwasher in each suite

### Accreditations

<http://www.lockhaven.edu/about/accreditation/>

Lock Haven University is accredited by the [Middle States Commission on Higher Education](#), 3624 Market Street, Philadelphia, PA 19104 (267-284-5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

#### Program Accreditations

Accounting – Accreditation Council for Business Schools and Programs (ACBSP)

Athletic Training – Commission on Accreditation of Athletic Training (CAATE)

Business Administration – Accreditation Council for Business Schools and Programs (ACBSP)

Community Health – SOPHE/AAHE Baccalaureate Program Approval Committee (SABPAC)

Nursing – Accreditation Commission for Education in Nursing (ACEN)

Physician Assistant – Accreditation Review Commission of Education for the Physician Assistant (ARC-PA)

Recreation Management – Council on Accreditation for Parks, Recreation, Tourism and other Related Fields (NRPA)

Social Work – Council on Social Work Education (CSWE)

Teacher Education – National Council for the Accreditation of Teacher Education (NCATE) and the Pennsylvania Department of Education (PDE)

In addition, the following programs within teacher education have been nationally recognized by the appropriate Specialty Professional Associations (SPAs).

- English – National Council of Teachers of English (NCTE)
- Early Childhood Education: PreK-4 – National Association for the Education of Young Children (NAEYC)
- Health & Physical Education – Society for Health and Physical Educators (Health Education) and Society for Health and Physical Educators (Physical Education)
- Mathematics – National Council of Teachers of Mathematics (NCTM)
- Middle Level Education – Association for Middle Level Education (AMLE)
- Science (Biology, Chemistry, Earth Science, General Science, Physics) – National Science Teachers Association (NSTA)
- Social Studies – National Council for the Social Studies (NCSS)
- Special Education – Council for Exceptional Children (CEC)

#### Program Recognitions

Chemistry – American Chemical Society (ACS)

#### **The curricula and physical plant of Lock Haven University are fully accredited by:**

The American Medical Association

The Bureau of Professional and Occupational Affairs of the Commonwealth of Pennsylvania

The Association of American Colleges and Universities

The Pennsylvania State Board of Nursing

#### **The university is a member of leading educational organizations, including:**

American Association for Employment in Education

College and University Professional Association for Human Resources

EDUCAUSE

Institute for International Education

Middle States Association of College and Schools

National Association of Colleges and Employers

National Collegiate Athletic Association

National Collegiate Honors Council

National Society for Experiential Learning

Pennsylvania Campus Compact

Pennsylvania State Athletic Conference

Society for Human Resource Management

The American Association of Colleges for Teacher Education

The American Association of State Colleges and Universities

The American Council on Education

The Center for Agile Pennsylvania Education

The National Association of College and University Business Officers

The Pennsylvania Black Conference on Higher Education

The University is a member of the Chincoteague Bay Field Station Consortium, Wallops Island, Virginia

**The university is recognized as a military friendly institution.**

## **STUDENT COMPLAINT PROCEDURE**

Students may find procedures for filing complaints with the University at <http://www.lockhaven.edu/about/studentcomplaint.html>.

These complaints involve Grade Appeal, Sexual Harassment, Americans with Disabilities Act (ADA), Out-of-State On-line Program Students, and complaints against faculty or staff other than grade appeal, harassment or discrimination, or ADA accommodation.

Grievances, complaints, or concerns must first be addressed directly with the University. If a student believes that the issue cannot be resolved by the University, a complaint may be filed with Pennsylvania's State System of Higher Education. Information is available on the web at [PASSHE Student Complaint Process](#).

## **HIGHER EDUCATION ACT**

<http://www2.ed.gov/policy/highered/leg/hea08/index.html>

The Higher Education Act of 1965 (HEA), as amended by the Higher Education Opportunity Act of 2008 (HEOA), includes disclosure and reporting requirements to allow consumers to make informed decisions about postsecondary education.

The link to LHU's consumer information can be found under the "About" section on the university's main web page and is entitled "Consumer Information." [<http://www.lockhaven.edu/about/consumerinfo.html>]

## **STATE AUTHORIZATIONS FOR DISTANCE EDUCATION AND FIELD EXPERIENCES**

<http://www.lockhaven.edu/about/stateauthorization.html>

Due to new federal regulation, all universities offering distance education programs and field experiences in states other than their own must receive authorization from those states to do so.

Lock Haven University is a participating SARA Institution since January 1, 2017. By participating in SARA, LHU is able to operate in every SARA state. [The SARA Map](#) identifies other participating states and districts.

## **ADMISSIONS**

<http://www.lockhaven.edu/admissions/>

### **Standards and Requirements**

The following general requirements have been established for admission to LHU.

- High School Curriculum – Students must successfully graduate from an approved four-year high school or institution of equivalent grade, or equivalent preparation (e.g., GED) as determined by the Credentials Division of the Pennsylvania Department of Education. Students must be enrolled in a college preparatory program throughout high school to be eligible for admission. Although Advanced Placement (AP) or Honors courses are not required for admission, they do carry extra weight in the application review process.

Please refer to the following table for high school curriculum requirements:

<b>Subjects</b>	<b>Number of Years</b>	<b>Requirements</b>
Language Arts Literacy	4	Content may include English language, communication, writing, composition, research, logic, media, and literature.
Math	3	Content that incorporates the equivalent of Algebra I, Geometry and a third year course in either Algebra II or a rigorous course based in Probability/Statistics. Mathematics and/or mathematical-based science taken in senior year is highly recommended, especially for math/science majors.
Science	3	Content that incorporate the equivalent of biology (with lab), chemistry (with lab), and other inquiry-based lab or technical sciences such as physics, engineering, environmental, or earth science. Science majors are required to have four years of an academic science.

Social Studies	3	Content that incorporates the equivalent of civics, US history, world history, geography, and economics. Content must provide an understanding of the influence of heritage, cultural context, diversity, and global perspectives.
Foreign Language OR Academic Electives	2	

- Grades – Students must demonstrate academic achievement in the classroom. The admission committee will consider high school GPA, class rank, grades in academic core subject areas, and quality of curriculum. In many cases, senior grades are requested and taken into consideration during the application review process. In all cases, admission is contingent upon successful completion of the final year.
- SAT/ACT Scores – Students must submit college entrance examination scores from the SAT or ACT. The writing section of the SAT exam is not used in the admission decision process. *Students who graduated from high school three years prior to applying for admission to LHU are not required to submit SAT/ACT scores.*

### **Application Procedures**

- A completed application is required. Applicants are encouraged to complete the application online. The online application fee and paper application fee is \$25.00.
- Students should request that an official copy of their secondary school transcript be forwarded from the guidance office directly to Lock Haven University Office of Admissions.
- SAT or ACT scores should be requested from the respective testing center or the high school. Test scores printed on the secondary school transcript or enclosed with the official documents from the high school are considered official.

### **Supplemental Materials**

Letters of recommendation, essays, and interviews are optional. High achieving students typically do not need to interview or submit these extra documents. However, students who feel that a blemish on their transcript can be explained through an essay or letter of recommendation should consider submitting the additional documents or scheduling an interview.

### **Enrollment Procedures**

- Once admitted, students are required to pay a \$200.00 non-refundable enrollment deposit. The National Candidates Reply Date is May 1 of the year that the student will enroll. Once the enrollment deposit has been paid, the Registrar's Office will begin working to construct the student's schedule, and the Housing Office will assign housing for those requesting on-campus housing.
- All new students must have the medical history report completed by a physician. This form must be returned to LHU prior to enrollment.

### **Special Programs**

#### **Accelerated 3+2 Health Science Pre-Physician Assistant Program-**

Students who wish to be considered for the 3+2 program must first apply for admission to the traditional Health Science/Pre-Physician Assistant program and have all required application materials submitted no later than November 1. The 3+2 admission review committee will review applications and invite select applicants to campus for an interview.

#### **Accelerated 3+3 Health Science Pre-Physical Therapy Program-**

Students who wish to be considered for the 3+3 program must first apply for admission to the traditional Health Science/Pre-Physical Therapy program and have all required application materials submitted no later than November 1. The 3+3 admission review committee will review applications and invite select applicants for an interview.

#### **Accelerated 3+2 Athletic Training Program-**

Students who wish to be considered for the 3+2 program must first apply for admissions to the Health Science/Exercise Science program and have all required application materials submitted no later than November 1. The 3+2 admissions review committee will review applications and invite select applicants for an interview.

### **Transfer Student Policy**

- Any student who has enrolled at a post-secondary institution following high school graduation is considered to be a transfer applicant. The exception is if courses are taken during the summer between high school graduation and matriculation.

- A minimum cumulative grade point average (GPA) of 2.0 is generally required for admission. Select majors may require a higher GPA.
- Students with fewer than 12 transferable credits must provide an official copy of their high school transcript.

### **Application Procedure for Transfer Students**

- Admission to LHU is offered on a rolling basis; therefore, priority is given to those students who apply early. To ensure adequate time for scheduling, financial aid, etc., required application materials should be received by **December 15 for spring** semester consideration, and by **August 15 for fall** semester consideration.
- Official transcripts must be sent from all previously attended post-secondary institutions.
- Students are provided with an unofficial credit evaluation at the time of acceptance. Official credit evaluations are provided once students pay the enrollment deposit. All offers of admission are contingent upon successful completion of course work completed after the time of acceptance

### **Home Schooled Students**

A transcript of all secondary level course work from a state/commonwealth recognized home education diploma program or your home school district or a General Equivalency Diploma (GED) and samples of all secondary level course work completed.

### **International Students**

Lock Haven University recommends that students seeking admission from foreign countries submit the [online application](#) and all application materials at least three months prior to their start date. Application materials include:

- An official evaluation of educational credentials. Students with transcripts from non-U.S. institutions are required to submit an official educational credential evaluation of transcripts, academic records, diplomas, national examination results, certificates or degrees received from all secondary, post-secondary, university and/or professional schools. Companies providing this service include Educational Credential Evaluators, International Education Research Foundation, and World Education Services, Inc. (WES)
- Students whose primary language is not English are required to submit one English proficiency exam score. Acceptable English proficiency exams include the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), Cambridge English (CPE), Global Test of English Communication (GTEC), Duolingo, and the SAT and the ACT. Minimum exam scores are listed on our website.
- A copy of the applicant's current passport.

For further details on the international student application process, see <http://www.lockhaven.edu/admissions/international/>. All application materials must be completed and received to be considered for admission.

### **Readmission of Former Students**

Students who have withdrawn from the University may apply for re-entry to any semester by following the [Request to Resume Studies](#) process found on the Registrar's website. Official transcripts of any credits completed at other institutions during the withdrawal period must accompany the request. Students are encouraged to check with the Financial Aid Office about how financial aid is affected by re-entry.

Students who graduated from LHU and have sat out at least one semester (fall or spring) will follow the [Request to Resume Studies](#) process found on the Registrar's website.

## **STUDENT ACCOUNTS AND FINANCIAL AID INFORMATION**

<http://www.lockhaven.edu/studentaccounts/>  
<http://www.lockhaven.edu/financialaid/>

### **STUDENT ACCOUNTS**

The Student Accounts Office generates and distributes student bills, processes payments, offers a third-party payment plan, and issues refunds.

The Financial Aid Office reviews eligibility for and disburses financial aid, processes verification forms, and conducts a Federal Satisfactory Academic Progress review.

Tuition rates and refund schedules for all state system universities are established by the Board of Governors of the State System of Higher Education. Since the state subsidizes these institutions, and since it is possible for a number of students to earn part of their expenses through campus employment or the Federal work-study program, the total yearly costs are comparatively low. All fees are subject to change without notice. Please check the web site at <http://www.lockhaven.edu/cost/> for the most up-to-date tuition and fees.

The university operates on a semester based system. Each student will be invoiced at least twice during the year: in late July for the fall semester and then in December for the spring semester. Due dates will be on the student's invoice and are due the first day of classes.

### **Housing and Food Service**

The university makes every effort to help beginning students adapt successfully to college. For this reason, the university reserves the right to require students to live on campus for a designated period during their study at LHU. Exceptions from this requirement will be considered on a case by case basis.

All arrangements for housing services other than those noted are subject to the action of the Council of Trustees as reviewed by the Fees Committee of the Board of Presidents and approved by the Board of Governors. All students who live on campus are required to accept the board contract.

Current costs for housing and food service/meal plans can be found at <http://www.lockhaven.edu/cost/>.

### **Deposits and Other Fees**

#### Deposits

A deposit of \$200 will be required at a designated time after the university notifies applicants of their acceptance. This deposit is credited to the account of applicants when their bill is rendered at the beginning of the semester. The deposit is non-refundable.

All checks should be made payable to "Lock Haven University" and sent directly to the Admissions Office.

#### Student Activity Fee

All full-time students of LHU must pay an activities fee as mandated by the President of the university under Legislative Act XIII of the General Assembly of Pennsylvania, and administered under regulations approved by the Council of Trustees through the student association. This fee generates funds for student activities, intercollegiate athletics, social functions, dances, movies, concerts, art and lecture series, cultural events, the student newspaper, and programming at the Parsons Union Building. The fee also supports programming initiatives for distance education students, including YMCA and fitness memberships, movie passes, etc.

#### Student ID Cards

Each student receives a student identification/activities (I.D.) card. This card is the property of Lock Haven University. It is issued at the beginning of the student's freshman year and should be kept as long as the student is enrolled at the university. The I.D. card is validated each semester upon the payment of tuition and fees. The validated I.D. card must be presented to gain admission to all events sponsored by the university and student organizations. There is no charge for the original card. There is a charge of \$15 for replacement cards.

#### Married Students

One activities fee will cover the entire family of a married student. Any member of the family who is an enrolled student of the university must pay the full individual activities fee. It is the responsibility of the student to inform the I.D. Office secretary that he/she is married so the I.D. card can be marked accordingly.

#### Delinquent Accounts

No student shall be enrolled, graduated or entitled to receive an official transcript until all charges have been paid. Failure to pay will result in collection proceedings. No academic transcript will be issued until the total account is zero.

#### Other Fees

Other, or miscellaneous, fees include, but are not limited to, the following. Tuition and fees are required for all credits earned, including internships and self-study credits. These mandatory fees are required to support academic and ancillary functions along with the university and our student. Details may be found at <http://www.lockhaven.edu/cost/>.

Application Fee  
 Certification Fee  
 Damage Fee  
 Diploma Replacement Fee  
 International Student Teaching Fee  
 Late Payment Fee  
 Library and Parking Fines  
 Non-Sufficient/Returned Payment Fee  
 One-Time Registration & Transcript Fee  
 Overseas Student Fee  
 Parking Decal Fee  
 Recording Fee

### **Failure to Pay**

A student's failure to pay their bill(s) by the specified due date will result in late fees and/or a financial hold added to the student's account. This financial hold will prevent the processing of diplomas/transcripts as well as any changes in registration for the current and subsequent semesters. Additional information regarding the late fee and financial hold policies can be found at <http://www.lockhaven.edu/studentaccounts/policies.html>. If the student account becomes delinquent, collection proceedings will result. Please refer to the below "Delinquent Accounts" sections for further detail.

### **Delinquent Accounts**

No student shall be enrolled, graduated, or entitled to receive an official transcript until all charges have been paid. Failure to pay will result in collection proceedings, including possible reporting to credit bureaus. No academic transcript will be issued until the total account is zero. Additional details regarding the university's delinquent accounts policy can be found at <http://www.lockhaven.edu/studentaccounts/policies.html>.

### **Refunds of Financial Aid or Account Overpayment**

LHU has partnered with Bank Mobile to provide students with a quick and easy way to receive their refunds. Upon acceptance to LHU, students will receive an envelope in the mail as well as an email from Bank Mobile with instructions on how to choose a preference for receiving refunds. The Student Accounts Office processes refunds and oversees Bank Mobile. Additional information regarding the refund process can be found at <http://www.lockhaven.edu/studentaccounts/policies.html>.

### **Refunds Due to Withdrawal from LHU**

If a student withdraws from the university, a refund of tuition and fees may be issued depending on the date of the withdrawal. Medical withdrawals are treated in the same manner as any other withdrawal and subject to the same refund policy. Please note that the Technology Tuition Fee is nonrefundable. Refund information can be found at <https://lockhaven.edu/cost/refundschedule.html>.

### **FINANCIAL AID**

Financial Aid to meet the costs of attending LHU is available from a variety of programs. The majority of these programs provide funds based on computed financial need, but some non-need-based programs are also available.

The Financial Aid Office coordinates these programs. Detailed information can be found at <http://www.lockhaven.edu/financialaid/>.

#### Programs Available

Need-based financial aid includes:

#### Grants (Gift aid with no repayment or work requirement)

##### State

Pennsylvania Higher Education Assistance Agency (PHEAA)

Other PA Grant programs: <http://www.pheaa.org/>

Grants of other states for their residents

#### Federal

- Federal Pell Grant Program
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal TEACH Grant (Additional information below)

#### Loans

Lock Haven University participates in the Federal Direct Loan Program. This program offers loans to both students and parents. These loans include: Federal Direct Stafford, and Federal Direct Plus. Also, information about Private Alternative Loans is available. For up-to-date information, please go to <http://www.lockhaven.edu/financialaid/types/>.

#### Student Employment (On-campus work during school enrollment)

Federal Work Study Program (FWSP)

Campus Employment Program

Details for these opportunities can be found at the Career Services website, <http://www.lockhaven.edu/career/jobs/>.

In addition, student may have the opportunity to work in a community service position located at an approved off-campus non-profit organization. For more information on these opportunities, please visit the following site <http://www.lockhaven.edu/mountainserve/>.

The following financial aid programs are available on the basis of need and/or merit:

#### Scholarships

A number of scholarships (restricted and unrestricted) are made available to both incoming and presently enrolled students by the LHU Foundation, a charitable non-profit corporation established to accept gifts and bequests for the benefit of the university and to administer them according to the donor's wishes. For information about the different types and amounts of scholarship awards available for both freshmen and currently enrolled students, please visit <http://www.lockhaven.edu/scholarships/>.

The Mary Ann Fox Scholarship awards are made to graduates of any high school in Lycoming County or Clinton County, Pennsylvania who are of good character and whose financial conditions are such that they could not otherwise attend college. The awards are made annually but subject to renewal, in varying amounts, depending on the applicants' justification of need and the amount of money available in the scholarship fund. These awards are limited to use at four institutions: The Pennsylvania State University, Lock Haven University, Lycoming College, and Bucknell University. The scholarship applications are available through the President's Office at LHU at the beginning of February each year.

In addition, two and three-year scholarships are available through the Department of Military Science. Information about these scholarships is available by contacting the Office of Military Science.

#### Athletic Grants

LHU provides grants-in-aid to outstanding student athletes at a level compatible with available funding. The Department of Athletics, through the LHU Foundation, assists men and women athletes with their educational expenses. The amount of aid available varies from program to program and within NCAA limitations.

#### Teach Grant

**Teacher Education Assistance for College and Higher Education Grant (TEACH)** –is a federal grant for current and prospective teachers created by the College Cost Reduction Act of 2007. Eligible students may receive up to \$4,000 per academic year with aggregate amounts of \$16,000 for students for their first undergraduate or post-baccalaureate program. The 2017-18 maximum TEACH Grant is subject to the Federal Sequester and could be less than the above mentioned figures. To be eligible for a TEACH Grant at Lock Haven University, a student must complete a current FAFSA have a 3.25 cumulative GPA, have been granted degree candidacy by the LHU education department and be pursuing a degree in a high needs teaching field. For more information about the TEACH Grant, please visit <https://studentaid.ed.gov/sa/types/grants-scholarships/teach>. Please Note: Interested students should carefully review the eligibility requirements of this grant and consider how likely they are to meet them.

**IMPORTANT:** If a grant recipient fails to complete this service obligation, all TEACH Grant funds that he or she received will be converted to a Federal Direct Unsubsidized Stafford Loan. The recipient must then repay this loan to the U.S. Department of Education and will be charged interest from the date the grant(s) was disbursed.



## **Applying for Financial Aid**

To apply for financial aid, all students must complete the Free Application for Federal Student Aid (FAFSA). This form can be accessed at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) and filed after October 1<sup>st</sup> of each year. Pennsylvania residents should complete the FAFSA before May 1<sup>st</sup> of each year. Completion of the FAFSA and transferring the data to the Pennsylvania Higher Education Assistance Agency (PHEAA) allows Pennsylvania residents to be considered for a Pennsylvania State Grant. Students must complete any other supplemental forms requested by the Pennsylvania Higher Education Assistance Agency for State Grant consideration. Residents of all other states should apply for the state grant of their own state according to required procedures. Applications should be submitted by March 15<sup>th</sup> each year for the following fall semester. Please go to <http://www.lockhaven.edu/financialaid/> for more detailed information.

## **Return of Title IV Funds**

In accordance with Federal regulations, those students who receive Federal Student Aid (FSA) and who officially withdraw from Lock Haven University during the first 60% of a term will have their FSA adjusted. This also includes Federal Tuition Assistance.

The adjustment is based on the percentage of **calendar days used** in the academic period. This percent is calculated by dividing the number of completed days in the term (excluding breaks of five days or longer) by the total number of days in the term (excluding breaks of five days or longer).

The date of withdrawal will be the date the student **begins** the withdrawal process with the Enrollment Management Specialist unless there is documentation of class attendance beyond that date.

Students who do not follow the official withdrawal procedure but who stop attending classes for all of their courses will be considered to have unofficially withdrawn at the 50% point of the term unless attendance in an academic related activity is documented after that time. There will be no adjustment to FSA after the completion of more than 60% of the term.

Once the amount of federal funds to be returned has been calculated, the funds will be returned in the following order:

- Direct Unsubsidized Loans
- Direct Subsidized Loans
- Direct Parent PLUS
- Pell Grant
- Supplemental Educational Opportunity Grants
- TEACH Grant
- Iraq Afghanistan Service Grant

Students who receive a refund of financial aid prior to withdrawing from the university may owe a repayment of FSA funds received. Students will be billed by the Student Accounts Office and will be given 30 (thirty) days to repay the funds to the university. Students who fail to repay the unearned portion of FSA funds given to them will become ineligible for continued receipt of financial aid until the repayment is made. Failure to pay will result in collection proceedings, including possible reporting to credit bureaus.

## **Satisfactory Academic Progress (SAP)**

Federal Satisfactory Academic Progress Policy:

In accordance with federal regulations, this policy applies to all students requesting Title IV FSA regardless of whether FSA has been received previously. These regulations require that recipients of FSA maintain a satisfactory rate of progress toward completion of a degree (i.e. pace) and must be in good academic standing based on a cumulative GPA.

Students will be reviewed at the end of each semester (fall, spring, and summer), after grades are transcribed by the Registrar's Office. Please note that winter intersession credits are applied to the subsequent spring term. All enrollment terms, including summer, must be considered in the determination of SAP, even enrollment terms for which the student did not receive FSA. For the details of the SAP policy, please refer to the following website: <http://www.lockhaven.edu/financialaid/overview/#tab-7>.

In addition to the federal SAP policy, PHEAA has a separate SAP policy for PA State Grant recipients. If a student receives a full-time PA State Grant for the fall and spring terms, PHEAA requires the student to complete at least 24 credit hours before any additional PA State Grants can be awarded and disbursed. Please note that the 24 required credits pertain to new credits. Repeating a course that was previously passed in order to obtain a higher grade does not count as new credits in determining if the student has met PHEAA's academic progress requirements.

## **SERVICES FOR STUDENTS**

The opportunities provided to students for growth as individuals will be guided by their interests and concerns in Lock Haven's supportive environment. Learning takes place in many ways and in many different forms. Students undertake all of the aspects of achieving a college education through participation in activities in the classroom and outside of it. This basic philosophy directs the types of services that are provided to the student body by the university.

The university has an investment in its student body and in maintaining a healthy environment for learning. The initial year of college experience is the most important in forming foundations for future achievements. The Division of Student Affairs provides the leadership for creating an environment that supports students in achieving their educational goals, especially during the freshman year.

### **Center for Career and Professional Development**

The Center for Career and Professional Development is an integral part of the university's educational program and focuses on the relationship between self, education and careers. It promotes the concept that career development is an ongoing, lifelong process, which incorporates self-assessment and career readiness. Resources and programs are provided to help students explore, select and pursue meaningful careers that are consistent with their interests, abilities and values. Individual counseling is available to assist students with the career planning process, as well as "MyMajors", a web-based career guidance and information system. Group and individual instruction is offered on career implementation skills such as self-assessment, career exploration, interviewing, graduate school preparation, internship & job search strategies, and resume writing. The Center also maintains a career library, with additional information and resources available 24/7 through the Center's homepage, <http://www.lockhaven.edu/career/>.

### **Community Service Office**

At LHU, your education will not be confined to just the four walls of a classroom. LHU has been nationally recognized since 2006, by the President's Higher Education Community Service Honor Roll for our dedication to solving community problems through community service and learning opportunities. LHU's Community Service Office, located in the Parson's Union Building, is a campus resource for civic engagement activities, service learning, community partnership resources for some Experiential Learning requirements, alternative break trips, and service programs to promote active and global citizenship. A variety of volunteer opportunities are open to LHU students, faculty and staff interested in helping with short or long term community projects throughout the year. Get involved with our local partnerships, including: Clinton County Housing Authority Community Programs for mentoring youth, Annual Hunger Bowl Event: Hunger & Food Insecurity Awareness Food Drive, Annual Adopt A Family: Holiday Gift Drive, Big Brothers Big Sisters, Salvation Army Community Lunch Program, Children's Festival, and many additional programs and events. LHU's Community Service Office has additional opportunities for selected students to enroll with our office for recognition of their volunteer hours through, The President's Volunteer Service Award program, community service leadership student worker and Federal Work Study Award positions, engaged academic department partnerships, community service leadership opportunities with student government, Outreach for Humanity Student Club & American Red Cross Student Chapter, and a full-time national service opportunity with an AmeriCorps Volunteers in Service to America (VISTA) partnership, and a part time AmeriCorps national service program with AmeriCorps STEP.

### **Counseling Services (University)**

Counseling Service (CS) is a component of the Department of Social Work and Counseling. Counseling is provided to students with personal, emotional, mental or academic adjustment concerns. Professional Counselors and a Psychologist can assist students with questions about academic and educational success, interpersonal issues, self-image, social skills, mood problems, learning problems or other potentially stressful or emotionally disturbing experiences. Services are provided daily during regular working hours. Students may be referred to off-Campus agencies and private practitioners when desired, appropriate or when needed for more intensive or lengthy care.

The Counseling Services are located in 1<sup>st</sup> floor of Ulmer Hall.

### **Cultural Diversity Concerns**

Because of the university's mission to enhance multiculturalism, many students from a variety of backgrounds are represented at LHU. The Director of the Center for Excellence and Inclusion works with students from all cultures to create an environment that recognizes the value of diversity. The university strives to cultivate a climate that is free of bias and prejudice.

### **Disability Services**

The Office of Disability Services for Students (ODSS) provides accommodations and resources to students with disabilities (such as psychological disabilities, learning disabilities, visual or hearing impairments, or physical/health-related disabilities, etc.). We are committed to serving a diverse student body, and want all students to achieve academic success through equitable access to University programs, services, activities, and facilities, in accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), and ADA Amendments Act of 2008.

Upon acceptance, students with disabilities seeking accommodations are encouraged to **identify** themselves as an individual with a disability by contacting ODSS to schedule an appointment with the Director for a personal interview. To be eligible for accommodations appropriate **documentation** is required, such as medical diagnosis, psychological evaluation, etc. Students can also start the process of requesting accommodations by completing the online initial accommodation request form at [https://lockhaven-accommodate.symplcity.com/public\\_accommodation/](https://lockhaven-accommodate.symplcity.com/public_accommodation/)

**Office Location:** 114 Ulmer Hall

**Phone:** 570-484-2665

**Website:** <http://www.lockhaven.edu/adac/disabilityservices/>

**Email:** [Disability\\_Services@lockhaven.edu](mailto:Disability_Services@lockhaven.edu)

### **Educational Opportunity Program**

LHU's Educational Opportunity Program (EOP), partially funded by the Pennsylvania ACT 101/Higher Education Equal Opportunity Program state grant, assists students whose educational and economic backgrounds impair their initial ability to pursue higher education successfully. The faculty and staff of the ACT 101 Program provide ongoing professional and peer counseling, study skills instruction and tutorial services.

The summer component provides credit-bearing instruction in writing, learning strategies, reading, and other communication skills. Participating freshmen who successfully complete the summer requirements are enrolled for the regular academic year. Prospective students interested in the EOP Summer Session should contact the Act 101 Program Director for more information. Summer EOP students should meet ACT 101 guidelines established by the Pennsylvania Higher Education Assistance Agency (PHEAA) which include residency requirements, income guidelines and academic criteria to be met through high school rank, high school grade point average and an average score on the Scholastic Aptitude Test (SAT) or its equivalent.

Tutoring is provided at no charge and is available to all students in most basic subject areas. Students in their first two years of study are encouraged to arrange tutorial assistance during the early part of each semester if they anticipate or encounter difficulty with course work. Students in the Educational Opportunity Program (EOP) may be required to use tutorial services to remain in the program.

Counseling services provided by the Educational Opportunity Program render professional support to students, particularly those who are in their first two years at the university. These services help EOP students deal with academic and personal concerns such as time management, stress management, and conflict resolution. Peer counselors provided to freshmen EOP students help to facilitate their adjustment to college life and the university environment.

### **Health Services**

Students enrolling at the university must submit a completed Medical History Report prior to the start of the fall semester. This information must be completed by a physician, along with immunization data, and sent to the Glennon Health Services Center. Students may not enroll or attend classes without a completed form. Glennon Health Service provides outpatient consultation for students experiencing health difficulties. Staff members are available Monday through Thursday between the hours of 8 a.m. and 8 p.m., Friday 8 a.m. to 5 p.m., and Saturday 10 a.m. to 2 p.m. All students will be charged a health service fee whether or not the services offered on the campus are utilized. Students are strongly encouraged to have some form of health insurance. The University does not provide any medical insurance coverage to students.

### **Housing, On-Campus**

The university provides accommodations for approximately 1,800 students living on campus. Residence halls are available for freshmen, and all students have an opportunity to reside on campus during their college career. Students admitted to the Lock Haven Campus will comply with the following on-campus residency requirement. Students who enter as first-time fulltime students must reside in university housing their first four (4) regular semesters (summer and winter sessions not included). The following exceptions apply with verification:

- Students who will reside with parent(s) or legal guardian within the commuting distance of 30 miles from Lock Haven University.
- Students over the age of 21.
- Students married.
- Students with children.
- Transfer students who have completed a total of 4 regular semesters, including their prior college experience, or 60 credits. (Students who have completed fewer than 4 regular semesters of college, or 60 credits, will be required to live on campus until they have completed a total of 4 regular semesters of college or 60 credits).

The Dean of Student & Residence Life or designee shall have authority to review and make initial determinations pursuant to this policy and/or to grant applications for waivers in extenuating circumstances. Requests for review of application for waiver should be made to the Dean of Student & Residence Life.

Students learn many responsibilities by residing on campus and assume responsibility for their living environment. Events are planned to foster educational, social, cultural, and recreational interests among all students. Students participate in governing themselves by formulating policies that are reviewed annually. Professional staff members live in the residence hall, and upper-class students who reside on the floor and work as resident assistants are available to assist residents with concerns. All university residence halls are smoke-free.

All students living on campus are required to purchase a 19, 14, 10 or 175 block meal plan. The university has adopted a food court approach to dining. The dining service offers 19, 14, 10, 5, 175 block, 50 block or all flex meal plans for all students living off campus. Students will be able to use flex dollars for additional meals at the various locations. Flex-dollars are a part of the charge for each meal plan.

## **Information Technology**

Each of our campus buildings and residence halls is connected to the LHU Network (LHUPnet), a high-speed fiber optic network. Student computer laboratories are located in all residence halls and most academic classroom buildings. More than 1,000 network-attached computers have access to the broad range of information resources available on the campus network. These include electronic mail, file sharing, administrative systems, specialized academic applications, programming languages, and the Keystone Library Network as well as the Internet. All LHU students receive electronic mail and network access privileges to correspond with their advisors, professors and other students. Wireless and wired networking is available in all residence hall rooms.

The LHUPnet is linked to the Pennsylvania State System Network and the Internet, allowing connections to the SSHE Keystone Library Network and many other available services worldwide. Potential students can receive information from our website (<http://www.lockhaven.edu>), as well as apply for admission directly online.

### **LOCK HAVEN UNIVERSITY OF PENNSYLVANIA INFORMATION TECHNOLOGY ACCEPTABLE USE POLICY**

#### **1. Purpose**

This policy addresses the use of information technology resources (IT resources) at Lock Haven University of Pennsylvania (“the university”). IT resources are intended to support the university’s instructional, research, and administrative operations.

#### **2. Scope**

This policy applies to all users of IT resources owned or operated by Lock Haven University of Pennsylvania. Users include students, faculty, staff, contractors, and guest users of computer network resources, equipment or connecting resources. **Use of the university’s IT resources signifies agreement to comply with this policy.**

#### **3. Objective**

The objective of this policy is to create a framework to ensure that IT resources are used in an appropriate fashion, and support the university’s mission and institutional goals.

#### **4. Policy**

Use of the university’s IT resources is a privilege and signifies agreement to comply with this policy. Users are expected to act responsibly, and follow the university’s policies and any applicable laws related to the use of IT resources. This policy provides regulations to assure IT resources are allocated effectively.

While the university recognizes the role of privacy in an institution of higher learning, and will endeavor to honor that ideal, there should be no expectation of privacy of information stored on or sent through university-owned IT resources, except as required by law. For example, the university may be required to provide information stored in IT resources to someone other than the user as a result of court order, investigatory process, or in response to a request authorized under Pennsylvania's Right-to-Know statute (65 P.S. §67.101 et seq.). Information stored by the University may also be viewed by technical staff working to resolve technical issues.

## 5. Definitions

Information Technology (IT) resources include, but are not limited to, all university owned or operated hardware, software, computing equipment, systems, networks, programs, personal data assistants, cellular phones, fax, telephone, storage devices, cable television, input/output, connecting devices via either a physical or wireless connection regardless of the ownership of the device connected to the network, and any electronic device issued by the university. IT resources include all electronic media, voice, video conferencing and video networks, electronic mail, and related mediums such as blogs, wikis, websites, and electronic records stored on servers and systems.

## 6. Responsibilities

### A. Responsibilities of Users of IT Resources

1. Respect the intellectual property of authors, contributors, and publishers in all media.
2. Protect user account identification, password information, and all system(s) access from unauthorized use. Every user is accountable for all activities done via their account.
3. Report lost or stolen devices, especially devices that contain private or university information to the IT Department within 24 hours of discovery of the loss.
4. Adhere to the terms of software licenses and other contracts. Persons loading software on any university computer must adhere to all licensing requirements for the software. Except where allowed by university site licenses, the copying of university-licensed software for personal use is a violation of this policy.
5. Comply with federal, state, and local laws, relevant university personal conduct regulations, and the terms and conditions of applicable collective bargaining agreements. Applicable laws include, but are not limited to, those regulating copyright infringement, copyright fair use, libel, slander, and harassment.
6. Become acquainted with laws, licensing, contracts, and university policies and regulations applicable to the appropriate use of IT resources. Users are expected to use good judgment and exercise civility at all times when utilizing IT resources, and respect the large, diverse community utilizing these resources in a shared manner.
7. Understand the appropriate use of assigned IT resources, including the computer, network address or port, software, and hardware.
8. University business conducted by e-mail will be via the University's mail server accessed by the <username>@lockhaven.edu account assigned to the individual by the IT Department. Electronic mail should never be considered an appropriate tool for confidential communication and any content should adhere to the responsibilities put forth in this policy. Messages can be forwarded or printed, and some users permit others to review their e-mail accounts. Message content can be revealed as part of legal proceedings. Finally, messages are sometimes not successfully delivered due to a technical issue requiring authorized IT personnel to review message content as part of the troubleshooting process.

### B. Prohibited Uses of IT Resources

1. Providing false or misleading information to obtain or use a university computing account or other IT resources.
2. Unauthorized use of another user's account and attempting to capture or guess passwords of another user.
3. Attempting to gain or gaining unauthorized access to IT resources, files of another user, restricted portions of the network, an operating system, security software, or other administrative applications and databases without authorization by the system owner or administrator.
4. No servers, switches, routers, hubs, wireless hubs, or any other multi-host connection devices are permitted to be operated by any user without express written permission of the IT Department.
5. Performing any act(s) that interfere with the normal operation, proper functioning, security mechanisms or integrity of IT resources.
6. Use of IT resources to transmit abusive, threatening, or harassing material, chain letters, spam, or other communications prohibited by law.
7. Copyright infringement, including illegal sharing of video, audio, software or data.
8. Excessive use that overburdens or degrades the performance of IT resources to the exclusion of other users. This includes activities which unfairly deprive other users of access to IT resources or which impose a burden on the

university. Users must be considerate when utilizing IT resources. The University reserves the right to set limits on a user through quotas, time limits, and/or other mechanisms.

9. Intentionally or knowingly installing, executing, or providing to another, a program or file, on any of the IT resources that could result in the damage to any file, system, or network. This includes, but is not limited to computer viruses, Trojan horses, worms, spyware or other malicious programs or files.
10. Excessive or prohibited personal use by employees.
11. Use of the university IT resources for personal profit, commercial reasons, non-university fundraising, political campaigns or any illegal purpose.
  - a. The prohibition against using university information technology resources for personal profit does not apply to:
    - a. Scholarly activities, including the writing of textbooks or preparation of other teaching material by faculty members; or
    - b. Other activities that relate to the faculty member's professional development.
    - c. Other activities as approved by the University President
12. Non-authorized solicitations on behalf of individuals, groups, or organizations are prohibited.

## 7. Procedures

1. Violations of this policy will be reported to appropriate levels of administrative oversight, depending on the statutes and policies violated. Suspected violations of federal and state statutes and local ordinances shall be reported to the Director of Public Safety (chief of campus police) for official action.
2. Non-statutory violations of the Acceptable Use Policy, such as "excessive use," may be reported to the Chief Information Officer, the Director of Human Resources, the Dean of Student and Residence Life and/or the Director of Public Safety (chief of campus police).
3. A university employee or student who violates this policy risks a range of sanctions imposed by relevant university disciplinary processes, including denial of access to any or all IT resources. He or she also risks referral for prosecution under applicable local, state or federal laws.
4. The University reserves the right to take immediate action in disabling accounts and/or blocking network access in the event the usage policy is violated and the offending action is detrimental to other users or IT resources.
5. The University President's Senior Staff – via the Information Technology Department – is responsible for recommending the university's Acceptable Use Policy. Questions regarding the applicability, violation of the policy or appropriate access to information should be referred to the Chief Information Officer.

## 8. Publications Statement:

This policy should be published in the following publications:

1. Administrative Manual
2. Student Handbook
3. University Catalog
4. University Website

## 9. Distribution

1. All Employees
2. All Students
3. All affiliates with access to IT resources at the University

## Intercollegiate Athletics

Lock Haven University offers 20 intercollegiate sport programs, including 17 of which are members in the National Collegiate Athletic Association (NCAA) Division II and the Pennsylvania State Athletic Conference (PSAC) and two, which compete at the NCAA Division I level. The NCAA Division I programs include field hockey, which competes in the Atlantic-10 Conference, and wrestling, which competes in the Mid-American Conference. The NCAA Division II programs available for female student-athletes include: basketball, cross country, golf, lacrosse, soccer, softball, swimming, indoor and outdoor track and field, tennis and volleyball. LHU also offers women's wrestling, which competes in the Women's Collegiate Wrestling Association (WCWA). The NCAA Division II programs for male student-athletes include: baseball, basketball, cross country, football, soccer, and outdoor track and field.

LHU provides athletics grants-in-aid (scholarships) to outstanding student-athletes in accordance with available funding. The amount of aid available varies from program to program and within NCAA limitations.

### **Involuntary Leave of Absence**

The purposes and objectives of the university include establishing an environment that promotes individual well-being. Occasionally, a student may experience medical and/or psychological difficulties that interfere with academic and personal progress. An involuntary leave of absence occurs in those cases where psychological and/or medical evaluation indicate a necessity for a student to withdraw from the university but the student refuses to do so. The Dean of Student & Residence Life will determine, after consultation with professionals and following university procedures, that such action is appropriate and will forward a letter to the Registrar's Office after notifying the student.

Readmission to the university after an involuntary leave of absence will be based upon the Dean of Student & Residence Life's recommendation and other existing conditions for re-enrollment.

Withdrawal from Courses or the University – See Academic Information section of the catalog, Withdrawal from Courses and Withdrawal Policy, from the university.

### **Library Services**

At the Main Campus and at the Clearfield Campus, the goal of the LHU Libraries is to provide you with easy access to information resources and services that support your academic and professional studies. Our librarians are here to help you locate, evaluate, and effectively use all kinds of information sources: print and electronic books, journals, databases, videos, websites, and more. Our staff in Interlibrary Loan Services can provide you with research materials from other libraries. For your convenience, the librarians have created online study guides (called "LibGuides") for various courses and disciplines to assist you with your research. You can find them at <http://library.lockhaven.edu/?b=s>.

We strive to create comfortable spaces inside the library where you can study in groups, find quiet study areas, or just sit and relax. Stevenson Library on Main Campus includes a 24-hour study room which is accessible by I.D. card after normal library hours.

The Stephanie A. Wollock Learning Commons is on the 2<sup>nd</sup> Floor of Stevenson Library. It includes the Writing Center, the Betty B. Schantz Tutorial Center, the Helen Burgess Terrill Archives, and Media Services. The purpose of the Wollock Learning Commons is to provide students with easy access to several related support services, all in one location.

Students and faculty can borrow laptops, cameras, and other media equipment from Media Services. A large collection of instructional and feature films is also available. For more information, call Media Services at 570-484-2545.

All LHU students, faculty, and staff can access the library's e-resources from anywhere on or off campus. Your I.D. card number and your name are all you need to access these e-resources from off campus.

If you have questions about library resources or services, the best place to start is the library's "Ask Us" page at <http://ask.lockhaven.edu>. If you don't find your answer in the "popular questions" section, or if you prefer personal communication, feel free to call us, send us an email, use our reference chat service, or stop by to speak with us in person. The phone number to Stevenson Library is 570-484-2310. The phone number to the Clearfield Campus Library is 814-768-3410. The librarians are listed with their research specialties and email addresses at <http://library.lockhaven.edu/directory/mylibrarian>.

### **New Student Orientation Programs**

Introducing students and their parents to the college experience is one of the most important programs provided by the Division of Enrollment Management and Student Affairs. That is why mandatory orientation programs are available prior to the beginning of each semester. New students are required to attend these sessions and parents are strongly encouraged to take part as well. Student participation in these programs is most beneficial and helps students adjust to college living.

### **SMaRT Center** (Science and Mathematics Resource and Technology Center)

The SMaRT Center is a resource center for: education majors (science, and mathematics), middle level/elementary education, mathematics and science majors, and university faculty. The purpose of the center is to provide a facility for students, faculty and teachers to collaborate on research projects and on the improvement of the teaching and learning of mathematics and science. The center is equipped with: computers, mathematical software (Minitab, Mathematica, Geometer Sketchpad), teaching manipulatives



(attribute blocks, geoboards, base-10 blocks, geometric solids, mathematics puzzles and games), textbooks for lesson plans and unit plans. The materials in the center can be borrowed for classroom teaching. Those interested in borrowing materials should contact Dr. Denine Simin directly at [dcs719@lockhaven.edu](mailto:dcs719@lockhaven.edu). The center also sponsors seminars and teacher in-service workshops. The center is located in Robinson Hall.

### **Student Activities**

Located on the upper level of the Parsons Union Building, the Student Activities Office provides support, advisement, leadership opportunities and training for over 140 campus clubs and organizations recognized by the Lock Haven University Student Auxiliary Services, Inc., including the Student Government Board and the Haven Activities Council. Each year campus clubs and organizations develop and implement a variety of campus programs and events, including concerts, lectures, special events, performing arts, trips, movies, cultural programs, competitions, conferences, fundraisers, publications, open forums and community service initiatives to enhance campus life. The Student Activities Office sponsors an annual Club and Organization Fair during the first month of the fall and spring semesters to encourage participation and involvement, and to allow clubs and organizations the opportunity to showcase their membership activities to the campus community.

The Student Activities Office also oversees the management of the Parsons Students Union Building (PUB) and the Student Recreation Center (SRC). The PUB houses meeting space, common areas, a computer lab, the campus Bookstore, a game room, and office space for the Student Activities Office, the student newspaper and clubs and organizations. The SRC provides a weight room, climbing wall, indoor track, fitness equipment, three multi-use courts, racquetball courts and a dance room for students to use. Both facilities provide a variety of student employment opportunities.

### **Student Disciplinary Guidelines**

Guidelines for student discipline have been established that are in accordance with federal, state and local laws. The University has adopted the American Association of State Colleges and Universities standards for a drug and alcohol free environment. The university is also committed to providing a safe campus environment for its students, faculty and staff. All university regulations governing academic, social and behavioral standards appear in the Student Handbook.

### **TRIO Student Support Services (SSS) SCHOLARS Program**

The U.S. Department of Education provides grant funding for the TRIO SSS Scholars program to give 230 eligible students additional resources for success in higher education from freshman year through graduation. Participants could be first-generation college students or have limited incomes, documented disabilities or a range of academic needs. The program's goals are to boost students' grade point averages and rates of remaining in college until graduation. Benefits are a first-year summer bridge program, academic support (e.g., tutoring, advising, success workshops), career exploration, personal development and counseling, financial aid counseling, financial literacy programs, grant aid, graduate school readiness, and social and cultural events. Students are assisted by the Director, Dr. Julie A. Story; a faculty Writing Specialist; an administrative assistant; peer tutors and mentors; counselors; educational technologies; and learning communities. For more information or to apply, contact 570-484-3847, visit Ulmer 117/118/126, or see <http://www.lockhaven.edu/adac/sss/>.

### **Tutorial Services**

Tutorial Services provides free tutoring for math, writing and general education 100 and 200 level courses. Math and writing tutoring are provided on a drop-in, one-on-one basis. Group peer tutoring is provided for the other general education courses. Tutors are students at Lock Haven University who are trained to be tutors.

Tutoring is beneficial to all students, not just those doing poorly. Students are encouraged to seek tutorial assistance before they experience serious difficulties in their coursework. To apply for tutoring or to be a tutor, go to Tutorial Services website <http://www.lockhaven.edu/tutoring/>. Click either 'Get A Tutor' or 'Become A Tutor'.

The Tutoring Center is located on the 2<sup>nd</sup> floor of Stevenson Library in the Wollock Learning Commons.

*Please direct comments, questions and suggestions to [Tutoring@lockhaven.edu](mailto:Tutoring@lockhaven.edu).*

### **Veterans**

<http://www.lockhaven.edu/admissions/veterans/>  
[https://myhaven.lhup.edu/ICS/Registrar/Veterans\\_Information.jnz](https://myhaven.lhup.edu/ICS/Registrar/Veterans_Information.jnz)



The university is accredited to offer education to veterans as authorized under the provisions of Title 38, United States Code, Section 3675. The university cooperates with the Veterans Administration in making available curricula for those desiring to enroll in programs of study leading to the following degrees: Associate of Science; Bachelor of Arts; Bachelor of Fine Arts in Music; Bachelor of Science; Bachelor of Science in Education; Master of Health Science; Master of Education; or Master of Science. Credits for educational experiences earned while in the armed services may be granted by the university in accordance with the policies of the Board of Governors of the State System of Higher Education and regulations of the American Council of Education. The Registrar's Office evaluates military experiences upon receipt of Joint Services Transcripts. A school certifying official in the Financial Aid Office provides counseling and assistance in financial matters for veterans.

Act 46 of 2014 requires public institutions of higher education in Pennsylvania to provide veteran students, as defined in the Act, with preference in course scheduling. At Lock Haven University, scheduling preference is the day prior to when other students with the same classification will register.

For any student using Ch. 33 Post 9/11 GI Bill or Ch. 31 Voc-Rehab benefits, even if the VA has not yet paid tuition and fees, Lock Haven University will not:

- Prevent student from enrolling,
- Assess a late penalty fee,
- Require securing alternative or additional funding, or
- Deny access to any school resources (access to classes, libraries, or other institutional facilities) that are available to other students that have paid.

Veteran students also will have access to the veteran's lounge.

### **Writing Center**

The Writing Center is located in the Stephanie A. Wollock Learning Commons, second floor Stevenson Library. The Writing Center provides support for students who wish to improve their writing skills. Students receive assistance at any phase of the writing process: planning, organizing, developing, revising, and editing.

Staffed by student writing consultants, the Center offers individualized, drop-in assistance with papers from any course in any format, whether electronic or print. Although meeting face-to-face with the consultants is preferable, online assistance is also possible. Writing can be submitted at <http://www.lockhaven.edu/tutoring/index.html#tab-3>. Email: [lhuwriting@lockhaven.edu](mailto:lhuwriting@lockhaven.edu)

## **ACADEMIC POLICIES, PROCEDURES, DEFINITIONS, EXPLANATIONS**

<https://myhaven.lhup.edu/ICS/Registrar/>

Policies are available at <http://www.lockhaven.edu/about/policies.html>.

### **Academic Advising/Advisors**

Each student is assigned to a faculty member for academic advising. Students who have declared a major have as their advisor a faculty member within that discipline.

Each student's relationship with her or his academic advisor is important. Through discussion with an academic advisor, a student is better able to:

- Clarify academic, life and career goals;
- Understand the nature and purpose of higher education;
- Gain information about educational options, requirements, policies and procedures;
- Plan a program of study consistent with interests and abilities;
- Select and schedule appropriate courses;
- Integrate institutional educational objectives.

Academic advisors attempt to make information about academic programs readily available to students and assist them in working out solutions to academic problems. Students are advised in course selection, schedule development and clarification of educational goals. Students should see their academic advisor regularly for assistance with academic issues and concerns. Ultimately, students are responsible for their academic decisions.

### **Academic Amnesty**

Students returning to Lock Haven University of Pennsylvania after a minimum two-year interruption in matriculation may request that previously earned quality points not be calculated in the student's quality-point average after readmission. In other words, the student's cumulative grade point average starts over. However, the student's past courses and grades remain on the transcript. If a student does not attend for three semesters, returns during the fourth semester, and withdraws that semester, that semester will be defined as a semester of enrollment and may not be used toward the two-year interruption.

In addition, readmitted students must meet the University's requirements as well as the individual departmental and certification requirements that are in place the year in which they return. Credit for courses already taken may be accepted toward graduation. At the discretion of individual departments, students may be required to repeat those courses in which significant changes in content has occurred.

Students may request Academic Amnesty only one time.

Specific questions concerning these options should be addressed to the Registrar's Office.

### **Academic Honesty Policy**

#### **PREAMBLE**

Lock Haven University endeavors to promote an appreciation of the values of fairness and intellectual honesty and to establish a climate of academic freedom within which students learn. Any breach of trust may undermine academic freedom and diminish the integrity of the university's mission. The university has established means of discouraging academic dishonesty and has established procedures to protect every student's right to fair treatment and due process.

Instructors share the expectation that students demonstrate their mastery of subject matter in an honorable and straightforward manner. Violations of ethical norms are very serious.

#### **POLICY**

Lock Haven University forbids academic dishonesty. Students who commit acts of academic dishonesty shall be subject to the sanctions outlined below. This policy applies to all students registered at Lock Haven University during or after their enrollment. Students may contest only (1) whether or not academic dishonesty has occurred or (2) whether a penalty was given capriciously.

#### RESPONSIBILITIES OF INSTRUCTOR

Instructors are encouraged to include a statement regarding academic dishonesty in the course outline. Faculty members have the right to investigate any circumstances that may constitute violations of academic honesty.

#### RESPONSIBILITIES OF STUDENTS

Students who do not attend the first day of class must seek out a copy of the course outline. Students must meet the time deadlines outlined in this policy or forfeit the opportunity to appeal the decision.

As members of the university community, students share the responsibility for promoting and maintaining academic integrity. A student who becomes aware of an act of academic dishonesty by another student should bring this information to the attention of the instructor.

Either the instructor or student may initiate a charge of academic dishonesty.

#### DEFINITIONS

An act of academic dishonesty involves fraud, deceit, or misrepresentation in attempting to obtain academic credit or influence the grading process by means unauthorized by the course instructor or inconsistent with university policy. Academic honesty is breached when a student willfully gives or receives assistance not authorized in course work, and/or who intentionally fails to adhere to, or assists others in failing to adhere to, the university policy on academic honesty.

Academic dishonesty includes, but is not limited, to the following:

1. **Plagiarism.** The definition of plagiarism for purposes of Lock Haven University policy is as follows: At one extreme, plagiarism is the word-for-word copying of another's writing without enclosing the copied passage in quotation marks and identifying it in a proper citation. At the other end of the spectrum, plagiarism is the casual inclusion of a particular idea or term which one has obtained from another's writing or speaking, and which is presented as one's own opinion or idea. Within the broad spectrum, plagiarism may include weaving into the text random writings of others without proper identification of the sources. It is also the paraphrased and abbreviated restatement of the analysis and conclusions of another, without the due acknowledgment of the author's text as the basis for recapitulation. Plagiarism also includes, but is not limited to, "the wrongful appropriation, in whole or part, of another's literary, artistic, musical, mechanical, technical, or computer program composition."
2. Receiving and/or providing unauthorized assistance for and during examinations.
3. Using unauthorized notes, materials and devices during examinations.
4. Presenting material research prepared by others, including commercial services, as one's own work in fulfilling course requirements.
5. Collusion with others in attempting to circumvent course requirements.
6. Making fraudulent statements or claims to gain academic credit or influence grading.
7. Attempting to bribe faculty or other university personnel in order to gain academic advantage.
8. Securing or possessing course examination material prior to the administration of the examination from the instructor or proctor without the consent of the instructor.
9. Taking an examination or course on another's behalf or arranging for another to take an examination or course on one's behalf.
10. Altering transcripts and misusing other records and identification material.
11. Intentionally falsifying or arbitrarily inventing research and data to be presented as an academic endeavor.

#### PROCEDURE FOR HANDLING AN INCIDENT INFORMALLY

When an instructor observes a student engaging in an act of academic dishonesty in the classroom, such as cheating on a test, the instructor has the authority to confiscate the materials at that time and place, and discreetly inform the student that the student is required to make an appointment with the instructor to discuss the alleged incident. During that meeting between instructor and student, the instructor shall inform the student of the accusations against him or her. The accuser shall have thirty calendar days to notify the student of the allegations. In the event an incident occurs at the end of the spring semester, the thirty-day notification may apply to the following fall semester, with the consensus of all parties. If no consensus exists, the Provost/Executive Vice President or designee will decide whether or not to carry over the action.

If an instructor believes a student has engaged in an academically dishonest act outside the classroom, such as plagiarism, then the instructor shall so inform the student in a discreet, confidential setting, such as the instructor's office.

In cases of academic dishonesty, the instructor may elect to implement a sanction that can be given within the confines of the

course. If that sanction is not acceptable to the student, or if an instructor feels that more severe sanctions should be implemented, either party may initiate the procedures detailed below. In most instances, the final decision on a grade rests only with the instructor.

Should the student feel that the sanction is not acceptable, he/she may implement the following process:

- The student first notifies the instructor of his or her dissatisfaction with the sanction by arranging a meeting with the instructor in a discreet, confidential setting. This must be done within ten days of the implementation of the sanction; both the student and the instructor may appear with an advisor.
- If dissatisfied with the instructor's response, the student should submit in writing a statement of his or her dissatisfaction to the department chairperson and to the faculty member. The chairperson may attempt to work out a solution acceptable to both the student and the instructor.
- If the chairperson suggests a solution, the proposed solution should be discussed first with the instructor, who must approve it prior to the solution being offered to the student.
- If the instructor will not accept the chairperson's proposal, the chairperson then informs the student that no resolution is possible.
- If a student is dissatisfied with the department chairperson's response, the student must:
  - a. initiate the formal process;
  - b. give oral notification to the instructor of his/her dissatisfaction with the solution; and
  - c. submit a written statement about his/her dissatisfaction to the department chairperson.
- Notification must occur within ten days of the chairperson's response.

Should the instructor feel that an act of academic dishonesty warrants a more severe sanction than can be given within the confines of the course, the instructor retains the right to submit the evidence to the Provost/Executive Vice President or a designee with recommendations for further sanctions. The instructor must also inform the student of his/her action in a discreet, confidential setting such as the instructor's office.

#### FORMAL RESOLUTION PROCESS

The formal process may be initiated by either the instructor or the student by submitting in writing a complaint to the Provost/Executive Vice President. Once the Provost/Executive Vice President or designee determines the actual charges, the Provost/Executive Vice President or designee may not be involved in any aspect of the resolution process or an appeal. Once the Provost/Executive Vice President or designee initiates the formal proceedings, the student and instructor shall be informed in writing of the alleged violation. Both the student and the instructor may be assisted by a representative or an advisor who may be an attorney. If an attorney is present, he/she may not argue the case. The student shall be given, by personal delivery or by certified mail to the last known address, written notification of the date, time, place of the hearing and the alleged violation. Such notification shall not occur more than twenty-one days from the start of the formal process. The student will be given the right to review, prior to the hearing, any written material that will be used against the student at the hearing.

The hearing will be an administrative hearing with the hearing officer appointed by the Provost/Executive Vice President. The hearing officer is empowered with the right and obligation of judging the evidence and implementing a sanction if so warranted. The student has the right to cross examination and the right to present a defense. This cross examination and defense must be confined to the issue of whether or not academic dishonesty has occurred. The hearing must be recorded and a determination must be made as to whether a violation of this policy has occurred. The results of the hearing must be sent to the student and instructor in writing within five days of the termination of the hearing.

Students shall be advised that failure to attend the hearing, except for "good cause," may result in sanctions being imposed and the university is under no obligation to reschedule a hearing.

#### AN APPEAL

If the student is dissatisfied with the determination of the hearing officer, an appeal shall be made in writing to the Provost/Executive Vice President or designee within ten days after the student is notified of the results of the administrative hearing. Filing an appeal does not automatically result in a new hearing. The Provost/Executive Vice President or designee shall refer the appeal to the University Academic Appeals Board.

The Academic Appeals Board shall consist of a College Dean not previously involved in the resolution process or a substitute mutually agreed to by the instructor and the accused. The board shall include two faculty members chosen by APSCUF, as well as two undergraduate students appointed by the Student Cooperative Council, Inc. Terms of appointment will be for one academic

year. The College Dean or substitute shall serve as the chairperson.

The Academic Appeals Board shall review all evidence pertaining to (1) the fact of whether or not academic dishonesty has occurred or (2) whether or not the penalty was given capriciously. The board shall determine whether or not due process was given in reaching the decision, or based upon the introduction of new evidence, request a new hearing by a different hearing officer designated by the Provost/Executive Vice President. Only new evidence with direct bearing to issues (1) and (2) above may be introduced to the Academic Appeals Board. No disciplinary action will be taken before an appeal is decided unless the President determines that the integrity of the academic process requires immediate implementation. The chairperson and the board shall render a written decision to the student and instructor within ten days of receipt of an appeal. The decision of the Academic Appeals Board shall be final.

For the purposes of this policy, all time limits shall be construed to mean class days within the academic year. Summer school may constitute part of the academic year. Infractions occurring at the end of the spring semester or during the summer terms may be carried over until the next fall semester, with the consensus of all parties. If no consensus exists, the Provost/Executive Vice President or designee will decide whether or not to carry over the action.

#### SANCTIONS

The following is a list of the range of sanctions that may be imposed against a student found to have committed acts of academic dishonesty:

##### **Sanctions which may be given within the confines of the course:**

- **Grade Penalty:** An instructor's refusal to correct an assignment or test or an instructor's requiring the rewriting of an assignment or the retaking of a test for reasons related to academic dishonesty.
- **Grade Reduction:** If a student is found to have committed an act of academic dishonesty, then a grade for a particular unit of work or for the entire course may be reduced. This includes a grade of "E".
- **Imposition of a failing "E" grade:** A student who has withdrawn from a course in which he/she committed an act of academic dishonesty may receive an "E" for the course.

Instructors are encouraged to notify the Provost/Executive Vice President when a sanction is given within the confines of the course. The student must be notified when such action is taken. Once a sanction is given within the confines of a course and there is no formal process initiated, the sanction will be put in place and no other action will be taken by the student or faculty member.

##### **Sanctions which may result from Formal Resolution Process:**

- **Official Reprimand:** An official letter reprimanding the student for the commission of an offense may be placed in the student's official file for a specified period of time.
- **Suspension:** If a student is found to have committed an act of academic dishonesty, the student may be suspended from the university for a specific period of time unless specific and significant mitigating factors are present.
- **Dismissal:** Permanent removal of the student from enrollment at the university may be imposed for repeated violations, cumulative violations, or egregious first offenses.

#### DEFINITION OF TERMS:

**university** - the community of faculty, staff and students at Lock Haven University

**instructor** - any person employed by the university who holds academic rank or performs teaching duties

**staff** - any person employed by the university who is not a faculty member or an instructor

**class days** - days upon which classes in general are held during the academic year (normally five days a week)

**designee** - any person appointed by the Provost/Executive Vice President to represent the university. This person may not be a member of the faculty

#### **Academic Standing**

Good standing for undergraduate students will be set at 2.00 GPA.

## **Advanced Placement (AP)**

Lock Haven University will accept any Advanced Placement courses for credit with a score of 3 or better on the College Board Advanced Placement examination. In most cases, courses will transfer as a General Education Requirement or Elective, but for more specific information on the awarding of credit, please visit the [Registrar's Office website](#) and select "Credit for AP Exams."

The various subject examinations offered through the College Board's Advanced Placement Program (AP) are approved by the faculty for the award of credit based on a test score of 3 or higher. There is no limit to the number of courses for which AP may award credit. Consequently, in some cases entering students qualified for advanced standing may be eligible for placement at sophomore level. No letter grades are recorded, only credit hours for the corresponding university catalog course title and number.

Official score reports for the AP examination sent directly from the College Board testing service are required.

[https://myhaven.lhup.edu/ICS/Registrar/Transfer\\_Credit\\_Information.jnz](https://myhaven.lhup.edu/ICS/Registrar/Transfer_Credit_Information.jnz)

## **Agreement, Letters of and Articulation**

Lock Haven University has the following Letters of Agreement with other colleges and universities. See the LHU web page ([https://myhaven.lhup.edu/ICS/Registrar/Transfer\\_Credit\\_Information.jnz](https://myhaven.lhup.edu/ICS/Registrar/Transfer_Credit_Information.jnz)) for an up-to-date list and to review the agreements for details.

Agreements for LHU students to continue at the following institutions:

East Stroudsburg University	Program/Early Admission	Graduate Program in Clinical Exercise Science
SUNY Upstate Medical University	Graduate Program	Selected science programs
The University of Pittsburgh Swanson School of Engineering	Program/Early Admission	Dual baccalaureate degree program

Lock Haven University has the following Articulation Agreements with other colleges and universities. See the university web page ([https://myhaven.lhup.edu/ICS/Registrar/Transfer\\_Credit\\_Information.jnz](https://myhaven.lhup.edu/ICS/Registrar/Transfer_Credit_Information.jnz)) for an up-to-date list and to review the agreements for details.

Agreements for students from these institutions to matriculate at LHU:

Reading Area Community College	Science to Biology or Biology/Chemistry or minor in Nanotechnology
Tompkins Cortland Community College	Outdoor Recreation Management

Lock Haven University follows the [Pennsylvania State System of Higher Education \(PASSHE\) Student Transfer Policy \(1999-01-A\)](#).

Lock Haven University is a participant in Pennsylvania's state-wide transfer and articulation. More information can be found at <http://www.patrac.org/>.

## **Army Reserve Officers Training Corps (ROTC)**

<http://www.lockhaven.edu/rotc/>

The Army Reserve Officers' Training Corps provides the world's best leadership training while preparing qualified young men and women for service as commissioned officers in the United States Army. Army ROTC attains this objective by providing leadership training to students while they pursue their college academic studies. There is no military obligation incurred until you contract with the ROTC program.

The program involves both classroom and applied learning. Through "hands on" instruction, students learn and practice related skills. As students' progress through the program, senior cadets are given the opportunity to lead and mentor freshmen and sophomore cadets.

Competitive four-, three-, and two-year scholarships which pay tuition and mandatory fees or room and board (capped at \$10,000 annually), \$600 per semester for books, and a stipend between \$300-500 per month subsistence allowances are available to select qualified students.

Army ROTC offers the student a variety of social and professional activities, membership in several fraternal organizations and Army ROTC-sponsored university activities. These organizations are open to all participants and supplement the military education through achievement and service.

Graduation from LHU and completion of the advanced course leads to a commission as a Second Lieutenant in the United States Army Active Duty, National Guard or Reserves.

### **Articulation, Agreements and Pennsylvania State-Wide**

See "Agreement, Letters of and Articulation"

### **Attendance Policy**

Faculty determine attendance policies for their classes consistent with university approved guidelines. Attendance policies are to be included on syllabi.

#### University Approved Guidelines

**1. Students are expected to attend all classes.** It is the student's responsibility to complete all course requirements even if a class is missed. If a student misses class for an officially excused reason, then he/she is entitled to make up the missed work but only at the convenience of the faculty member. Responsibility for materials presented in, assignments made for, and tests/quizzes given in regularly scheduled classes lies solely with the student.

**2. Students are not penalized for absences caused by verified conditions beyond their personal control.** The student may be required to provide non-family, third-party documentation. Examples of these conditions may include: personal illness, death or critical illness in the immediate family, jury duty, military duties, religious holidays

**3. Absences due to Students' participations in the university approved athletics, curricular, and extra-curricular activities shall be recognized as excused absences for which they cannot be penalized.** However, to recognize that students' participating in the activities as official representatives of the university, instructors and staff overseeing the events (sponsors), will submit the University Approved Activities Form (UAAF, available online) clearly stating the dates, names of student participants, and objectives of the activities to the dean of the college. Coaches will submit the UAAF to the AD who will forward it to the deans. After evaluating the relevance of the activities to the university's mission, the deans will return the UAAF to faculty/staff sponsors. Sponsors will be responsible for providing copies to students who will share the information with their course instructors

a. Such requests using the Form must be initiated by the sponsors within the *first 2 weeks* of the semester;

b. Due to weather and other unforeseen reasons, some athletic and curricular events change schedule without adequate lead time. Such events would be treated as exceptions to the rule as stated above (a).

**4. Students are responsible for dropping/withdrawing from a class in which they are no longer are attending.** Deadlines are included on the academic calendar. Students who do not properly drop/withdraw from a class will be responsible for the grade earned and tuition and fees incurred.

### **Auditing a Course**

In special instances, a student may audit a course if a seat is available in the course. The instructor will provide the student with the course requirements needed to be awarded an audit (AU) grade at the conclusion of the semester. If successful completion of the audit requirements is not met, the course will be administratively withdrawn as of the end of the semester. A withdrawn grade (W) will appear on the student's academic record.

An audited course provides no academic credit nor may it be changed later to a credit grade. In order to audit a course, the student must first enroll in the course and then request approval from the Registrar.

The deadline to declare audit for a course is the same as that to declare pass-fail: twenty-one days into the semester (prorated for other sessions).

#### Criteria for auditing:

- There must be space available in the class.
- The student is not required to take an active part in class exercises or take exams.

- There is no cost for auditing a course provided the student's total credits are between 12 semester hours and 18 semester hours.
- The student must attend 75% of the class periods to receive the 'AU' grade; otherwise a 'W' is given.
- Approval is given by the Registrar.

### **Chincoteague Bay Field Station**

Classroom study, laboratory research and extensive hands-on experiences in marine environments will prepare the student for a career as a marine biologist. Lock Haven University is a member of the Chincoteague Bay Field Station which operates the Marine Science Center on the Delmarva Peninsula in Virginia. This location provides ready access to wetlands and barrier islands as well as inshore and offshore ocean habitats. Students who major in Biology with a concentration in Marine Biology are required to spend three summer sessions (three weeks each) at the Wallops Island facility where the student will collect data and perform research on a diverse variety of aquatic life. The student will use ocean-going research boats to reach points of study and to collect samples. Recent graduates of this program have entered graduate schools or found employment with private, state, and federal agencies.

### **Class Meeting Times**

<http://www.lockhaven.edu/academics/calendar.html>

#### Regular/Standard Class Meeting Times

Some classes meet at times other than the standard time below. Be sure to review the schedule of classes or your student schedule for accurate class meeting times.

<b>Monday-Wednesday-Friday</b>	<b>Tuesday-Thursday</b>
8:00 - 8:50 AM	8:00 - 9:15 AM
9:05 - 9:55 AM	9:30 - 10:45 AM
10:10 - 11:00 AM	11:00 - 12:15 PM
11:15 - 12:05 PM	2:10 - 3:25 PM
12:20 - 1:10 PM	3:40 - 4:55 PM
1:25 - 2:15 PM	5:10 - 6:25 PM
2:30 - 3:20 PM	
3:35 - 4:25 PM	
4:40 - 5:30 PM	
<b>Monday - Wednesday</b>	<b>Single Evening Meeting</b>
3:35 - 4:50 PM	5:05 - 7:55 PM
5:05 - 6:20 PM	6:30 - 9:20 PM

#### **Condensed Schedule** ~ Convocation & Martin Luther King, Jr. Celebration Days

For Convocation & Martin Luther King, Jr. Celebration Days, the following condensed schedule will be used.

<b>REGULAR MEETING TIME</b>	<b>SPECIAL MEETING TIME</b>
8:00 - 8:50 AM	8:00 - 8:40 AM
9:05 - 9:55 AM	8:55 - 9:35 AM
10:10 - 11:00 AM	9:50 - 10:30 AM
11:15 - 12:05 PM	10:45 - 11:25 AM
12:20 - 1:10 PM	11:40 - 12:20 PM
1:25 - 2:15 PM	12:35 - 1:15 PM
	<i>PROGRAM 1:30 - 2:45 PM</i>
2:30 - 3:20 PM	3:15 - 3:55 PM
3:35 - 4:25 PM	4:10 - 4:50 PM
3:35 - 4:50 PM	4:10 - 5:10 PM
4:40 - 5:30 PM	5:05 - 5:45 PM
4:40 - 5:55 PM	5:05 - 6:05 PM
5:05 - 6:20 PM	5:25 - 6:25 PM
Other evening classes	Normal class period



**Compressed Schedule ~ Inclement Weather**

For a delayed opening for academic instruction, the following compressed schedule will be used.

<b>Monday - Wednesday - Friday</b>		<b>Tuesday - Thursday</b>	
Regular Time	Adjusted Time	Regular Time	Adjusted Time
8:00 - 8:50 AM	10:00 - 10:40 AM	8:00 - 9:15 AM	10:00 - 11:00 AM
9:05 - 9:55 AM	10:55 - 11:35 AM	9:30 - 10:45 AM	11:15 - 12:15 PM
10:10 - 11:00 AM	11:50 - 12:30 PM	11:00 - 12:15 PM	12:30 - 1:30 PM
11:15 - 12:05 PM	12:45 - 1:25 PM	12:30 - 1:45 PM	1:45 - 2:45 PM
12:20 - 1:10 PM	1:40 - 2:20 PM	2:10 - 3:25 PM	3:00 - 4:00 PM
1:25 - 2:15 PM	2:35 - 3:15 PM	3:40 - 4:55 PM	4:15 - 5:15 PM
2:30 - 3:20 PM	3:30 - 4:10 PM	5:10 - 6:25 PM	5:30 - 6:30 PM
3:35 - 4:25 PM	4:25 - 5:05 PM		
4:40 - 5:30 PM	5:20 - 6:00 PM		
<b>Monday - Wednesday</b>		<b>Single Evening Meeting</b>	
Regular Time	Adjusted Time	Regular Time	Adjusted Time
3:35 - 4:50 PM	4:25 - 5:25 PM	5:05 - 7:55 PM	6:45 - 8:30 PM
5:05 - 6:20 PM	5:40 - 6:40 PM	6:30 - 9:20 PM	6:45 - 8:30 PM

\*On days when the compressed schedule is used, all night classes will begin at 6:30 PM.

**Length of Class Meeting Times (SSHE – System Academic Procedures – SA040 – June 2010)**

The length of class meeting times is defined as the number of contact hours per week per course credit hour.

One semester academic credit hour is the equivalent to a minimum of 700 minutes of instruction (50 minutes x 14 weeks), exclusive of time for final examination. This is equivalent to 35 hours of instruction plus time for final examination for a three credit-hour course. Note: This definition is for traditional classroom (face-to-face) instruction.

**Class Standing/Classification**

Number of earned credits required for each class level

0.0 – 29.5 Freshman

30.0 – 59.5 Sophomore

60.0 – 89.5 Junior

90.0+ – Senior

**College-Level Examination Program (CLEP)**

With the exception of only one General Examination (English Composition) and four subject tests (Business Law, Educational Psychology, College Composition, and Freshman English) offered through the College Board's College-Level Examination Program (CLEP), degree credit may be earned by candidates who achieve a scaled score equivalent to the 50th percentile or higher using current national norms for each test. No letter grades are recorded; rather only credit hours for the corresponding university catalog course title and number. Students must meet the PASSHE Graduation Residency Requirements.

CLEP may not be taken to replace a failing grade earned at LHU.

[https://myhaven.lhup.edu/ICS/Registrar/Transfer\\_Credit\\_Information.jnz](https://myhaven.lhup.edu/ICS/Registrar/Transfer_Credit_Information.jnz)

**Continuing Education**

In general terms, continuing education at Lock Haven University refers to enrolling in credit courses as a student who has not been formally accepted by the Office of Admissions. The main limitations on enrolling as a continuing education student include a course load limitation (normally no more than 7.0 semester hours) per semester and ineligibility for financial aid.

There are limited seats available for this opportunity.

### **Course Descriptions**

Current course descriptions are available on the web at <http://www.lockhaven.edu/coursecatalog/>; course descriptions available at the time of this publication are included at the end of this document.

### **Credit by Examination/ Non-Transcripted Prior Learning**

It is possible to earn credit toward graduation by satisfactory completion of examinations in areas where students have had good preparation. Students interested in this procedure should discuss their preparation with the department chairperson in whose area the expertise is claimed. If the chairperson thinks that the applicant has adequate preparation, a faculty member will be assigned to administer a comprehensive examination. If a student successfully completes an examination the course is entered on the student's record as credit by examination; letter grades are not awarded in this procedure.

If a student can provide documentation for a department to assess and evaluate non-transcripted prior learning, credit may be awarded.

Credit by exam is counted as resident credit for graduation.

Approval for credit by examination is required prior to completing the examination.

The credit by exam fee will be charged at the time of the pre-approval and is nonrefundable regardless of the student's success or failure in receiving the credit.

No credit by examination will be awarded without completing the pre-approval and paying the fee in advance.

### **Credit Hours**

Credit hours assigned to courses will be aligned with:

- Pennsylvania Department of Education's (PDE) regulations  
<http://www.pacode.com/secure/data/022/chapter31/s31.22.html>
- Pennsylvania's State System of Higher Education (PASSHE) common calendar  
PASSHE Board of Governors Policy 2002-04: Common Academic Calendar
- PASSHE's Standard – Length of Class Meeting Time – Schedule of Classes – SA-400
- Carnegie Unit of credit assignment

A typical semester meets for fourteen weeks of instruction, after which the final exam may be given in the fifteenth week.

One credit is defined as fourteen hours of classroom instruction. An "hour" is equivalent to fifty minutes.

The typical instructional time for a lecture-type class is fifty minutes per credit per week. A one-credit course will meet 50 minutes, one day per week for 14 weeks. A three-credit course will meet 50 minutes, three days per week for 14 weeks (or 75 minutes, two days per week for 14 weeks).

It is recommended that a student invest two hours of out-of-class time for every hour of in-class time.

The assignment of one semester hour of credit indicates no less than forty-two hours of effort by the student per semester. Not all effort is necessarily while in face-to-face contact with an instructor; each hour of directed faculty instruction will be accompanied by a minimum of two hours of out-of-class student work. (1 hour in-class + 2 hours out-of-class = 3 hours total per week; 3 hours per week x 14 instructional weeks = 42 hours)

Laboratory courses generally award one credit hour for two hours of scheduled lab work. A science course may combine two semester hours of lecture with one semester hour of lab for a total of three semester hours. This will require fifty-six hours of contact. (2 hours per week of instruction for lecture x 14 weeks of the semester = 28 hours plus 28 hours of laboratory as indicated below)

Studio-based courses award one credit hour for two hours of scheduled supervised studio work.

Online and individualized instruction courses are assigned the same number of semester hours of credit as an identical course delivered face-to-face, based on a determination that the student learning objectives and outcomes attained by the online or individualized instruction course are consistent with those of the face-to-face offering. Similar standards apply to the assignment of credit based on non-transcribed prior learning or examination. Online courses for which there is no face-to-face equivalents and independent study courses will be designed and offered to achieve course learning objectives and outcomes that reasonably approximate not less than forty-two hours of effort by the student for each semester hour of credit.

Internships will have a minimum of forty-two hours of contact for each credit hour assigned.

Course and program approvals follow a structured curriculum approval process beginning within the academic department, then to the college curriculum committee, the curriculum integration subcommittee, university curriculum committee, Provost, and President for courses and to PASSHE's Board of Governors for programs. Credit hour assignments may be reviewed at each step.

The academic calendar, provided by PASSHE, is reviewed by a Meet and Discuss Academic Calendar Committee that makes recommendations for allowable non-instructional days. In addition the Academic Calendar Committee recommends make-up days to be included on the calendar in the event of inclement weather to accommodate university closings. This committee ensures that the required number of instructional days are included on the calendar.

Offerings that do not follow the standard 14-week pattern are reviewed to ensure the minimum number of instructional hours are met. For example, summer classes do not meet for fourteen weeks. However, the meeting patterns are adjusted accordingly.

The College Deans and Registrar review class meeting patterns to ensure minimum instructional time is met.

### **Dean's List**

The Dean's Honor List, prepared at the end of each semester, recognizes those students who have achieved academic distinction. To qualify for the Dean's List, the student must have earned a GPA of at least 3.500 in 12 semester hours of letter grades.

Students who have an incomplete on their academic record will not be awarded Dean's List. However, when the incomplete grade is changed to the earned letter grade, the record will be reviewed to determine if the criteria have been met and Dean's List can be awarded.

### **Degree**

A degree is an academic title used as an indication of the completion of a course of study. The degree is what is earned upon completion of the requirements for the chosen major, which includes general education.

While each major has its own individual set of requirements in order to graduate with a degree, the overall requirement for most baccalaureate degree programs is 120.0 earned semester hours of work. (Associate and master degrees have varying requirements.)

*See also the section titled "Student Responsibility for Academic Programs."*

#### **Bachelor of Arts (BA) vs. Bachelor of Science (BS) Degree**

All candidates for a Bachelor of Arts degree must achieve proficiency through level IV (course number 202) of a foreign language. Proficiency shall be demonstrated by successful completion of foreign language IV or, with the approval of the chairperson of the Foreign Languages Department, a course to which level IV is a prerequisite. The Foreign Language Department offers guidance in placing individual students at a level appropriate to their background and ability.

Some Bachelor of Science programs also have a foreign language requirement. BS candidates should consult with their department chairperson or academic advisor to determine if a foreign language is required in their program.

In addition, BA degree programs require two liberal arts seminars selected from areas of humanities, social science, and science/math. These seminars provide a context to examine inter-relational aspects of knowledge and experience. Each seminar is taken in a different area and is required of all students majoring in any of the arts and sciences who are candidates for the Bachelor of Arts degree.

Through small group processes, assigned readings, informal conversations, and papers, seminar participants become involved in a cross-disciplinary environment in which each student is encouraged to develop informed insights and perspectives. Seminars focus on elements of history, culture, and science that influence the continuing development of human value systems and endeavors. The substance of a particular seminar includes consideration of the manner in which knowledge is developed and the impact of particular knowledge on contemporary society and on life as it may be experienced in the future. NOTE: All liberal arts seminars carry the course number 328.

## **Drop/Add**

### **Background**

Drop/Add is a course scheduling process that must be tied into enrollment and refund processing. Class lists for course sections are affected, as well as tracking of student course attendance.

#### **A. Criteria for Drop/Add**

1. The Drop/Add period will extend to the eighth calendar day excluding holidays, and when the university is closed, to provide student with one full week plus the weekend in a typical semester to obtain any necessary signatures/approval for closed courses or pre-requisite overrides.
2. These periods will be converted to percentages to apply to nontraditional semesters. The drop/add period covers 8.57 percent of the class days - (excluding the final exam period), adjusted to a whole number.
3. Universities may devise strategies to handle special circumstances.

## **Drop versus Withdrawal**

### **Drop**

- Takes place during the first few days of the semester/session (designated on the academic calendar), typically the first eight days of the semester
- Does not appear on a student's academic record with a "W" grade
- Semester hours are not included in the student's attempted hours
- Student drops courses online (using myHaven, Add/Drop Courses), unless dropping all classes, then needs to contact The Center for Excellence and Inclusion

### **Withdraw (with "W")**

- Takes place after the last day to "drop" through the end of the tenth week of the semester (designated on the academic calendar)
- Appears on a student's academic record with a "W" grade
- Semester hours are included in the student's attempted hours
- Student withdraws from courses online (using myHaven, Add/Drop Courses), unless withdrawing from a class after the fifth week of the semester, then needs to contact instructor or from all classes, then needs to contact the Center for Excellence and Inclusion [see Withdrawal Policy (Leave of Absence), from the University]
  - During the winter intersession and the summer sessions, students may withdraw from all courses online without contacting the Center for Excellence and Inclusion.

## **Dual/Second Degree Policy**

Students who are enrolled in dual degree programs (e.g. majors with different degrees), and who meet the requirements of both programs of study, may be awarded both degrees after having met the total credit hour requirements for the programs.

- Action for Post-Baccalaureate Students Returning for a Second Undergraduate Degree:
  - Students need to complete an additional 30 credits (regardless of number of earned credits of the first degree) and complete degree requirements in effect at time of matriculation for second undergraduate degree.

### **Second Bachelor's Degree**

Students who earn a bachelor's degree from another university (or return to LHU after completing a bachelor's degree) meet the general education requirements for the second bachelor's degree, unless the new major requires specific general education courses.

Students who transfer to LHU with a BA or BS degree and want to pursue a BA degree from LHU will not need to complete the seminars and language requirement.

Students who have earned a BS degree from LHU and return for a BA degree may request a waiver of seminars but should complete the foreign language requirement.

Students who have earned their bachelor's degree from another university can be identified in the following ways:

1. A note will appear on the degree audit.

*General education requirements met by previously earned bachelor's degree (college). Specific general education courses required by the student's selected major may need to be met. Students should check with advisor or major department chairperson.*

2. A comment will appear on the student's transcript. Unfortunately it does not show on the web academic record.

*Earned bachelor's degree from (college), (date)*

3. All courses presented for transfer will be evaluated and added as transfer coursework. They may not complete LHU's general education requirements on the degree audit; however, they are intended to satisfy the requirements unless the student's major has specific general education requirements.

4. Students who have earned their bachelor's degree from LHU will have their cumulative grade point average restarted upon their first semester of returning to LHU after completing the first bachelor's degree. The cumulative grade point average on the student's academic record is the official GPA. Degree audit will calculate a GPA based on all courses being evaluated for progress toward degree.

5. Degree audit will use all courses on the student's academic record, whether completed as part of the first degree at LHU or as part of the second degree at LHU, being applied to the requirements to compute the grade point average on the audit. This grade point average will not match the GPA on the academic record, nor is it the official GPA.

### **Disney College Program**

Students must complete the Transfer Credit Approval form to ensure transferability.

Credit for courses taken while participating in the Walt Disney World College Program may be based on the American Council on Education's recommendations or as reviewed by the academic department per the chart below. Course transferability is also based on the grade awarded by Disney College.

Detailed information about the courses can be found at <https://www.acenet.edu/NationalGuide>; choose Walt Disney Co. from the list of organizations.

More information about the Program can be found at

[https://www.wdwcollegeprogram.com/sap/its/mimes/zh\\_wdwcp/students/education/edu\\_collegiate.html](https://www.wdwcollegeprogram.com/sap/its/mimes/zh_wdwcp/students/education/edu_collegiate.html).

Current LHU course equivalencies can be found at [this link](#).

### **IMPORTANT REMINDERS**

1. Prior to participating, students must complete the [Transfer Credit Approval Form](#).
2. Students need to be aware that they are not registered students at LHU during this time even though they may transfer credit. LHU will not be able to verify enrollment for the student for health insurance coverage or for loan deferments.
3. Students need to [request to resume studies](#) in order to come back to LHU to continue their academic career.

### **Exam Policy**

Recognizing that corrected exams can be learning tools, the university accepts as educationally sound policy that faculty make available\* to students term papers, tests, and quizzes within two weeks of the date of submission.

Final exams, term papers or project reports will be retained by faculty members for a full semester and made available to students upon request.

Final comprehensive exams are prohibited during the fourteenth week.

\*It is the instructor's prerogative either to return work or to allow students to see it.

## **Exploratory Studies**

Students who are undecided about a choice of major are identified as Exploratory Studies at Lock Haven University.

National research indicates that some form of undecidedness, tentativeness, or uncertainty about choice of major exists for at least three out of four first year college students. A student's decision to be an Exploratory Studies student at Lock Haven University could mean openness to new ideas and suggestions concerning a major, and eventually, a career. This perspective can bring very positive experiences during a student's academic career. However, in order to complete requirements for graduation in a timely manner, a student must be intentional about exploring majors. Students are encouraged to declare a major by the time they have earned 24 – 30 credits and must declare a major by the time they have earned 60 credits.

The university can assist students in making the most appropriate choice of major through the following activities, coursework, and services:

- First Year Seminar for Exploratory Studies Students (1-credit course)
- Academic and career-focused advising
- The Career and Professional Development Center's FOCUS website
- Academic Majors Fair – September of each academic year
- Workshops and programs for the undecided student

For many entering students, the freshman year provides an opportunity to explore potential life and career goals and examine the relationship between those goals and specific academic programs. Exploratory Studies students are strongly urged to work closely with their academic advisor and to take full advantage of all the assistance available to select the most appropriate choice of major.

## **Family Educational Rights & Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. When a student reaches the age of 18 or attends a school beyond the high school level, these rights transfer to the student.

- Students have the right to inspect and review their education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for students to review the records. Schools may charge a fee for copies.
- Students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the student has the right to place a statement with the record setting forth his or her view about the contested information.
- Generally, schools must have written permission from the student in order to release any information from a student's education record.

However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):

- School officials with legitimate educational interest;
- Other schools to which a student is transferring;
- Specified officials for audit or evaluation purposes;
- Appropriate parties in connection with financial aid to a student;
- Organizations conducting certain studies for or on behalf of the school;
- Accrediting organizations;
- To comply with a judicial order or lawfully issued subpoena;
- Appropriate officials in cases of health and safety emergencies; and
- State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools **may** (schools are not required to disclose, given the situation) disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance.

A student may request that any or all of this information not be made publicly available by request to the Registrar's Office.

However, schools must tell students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them.

Directory of information at LHU includes:

- Name
- Local/permanent/university email address/telephone numbers
- Major field of study
- Participation in officially recognized activities/sports
- Weight/height of members of athletic teams
- Dates of attendance
- Degree and awards received and dates of receipt
- Academic awards received, including but not limited to Dean's List
- Most recent previous educational institution attended
- Academic level
- Enrollment status (full- or part- time)
- Classification
- Receipt or non-receipt of a degree

Source: <http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

Additional Information:	LOCK HAVEN UNIVERSITY Contact:
Family Policy Compliance Office U.S. Department of Education 400 Maryland Ave, SW Washington, DC 20202-5901	Ms. Jill R. Mitchley, Registrar Ulmer Hall 224 Lock Haven University of PA Lock Haven PA 17745 570-484-2526 jmitchle@lockhaven.edu

### **Final Exams**

The final exam schedule is provided on the Official University Calendar at <http://www.lockhaven.edu/academics/calendar.html>.

Final exams are prohibited during the fourteenth week of the semester.

Final exams are to be given according to the published final exam schedule.

Early in the semester, a memo is sent to department chairs to request a common night final exam for courses with three or more sections. The night exam schedule runs on the regularly scheduled exam days with evening periods being 6:00-7:50 PM and 8:00-9:50 PM.

### **Foreign Language Proficiency/Requirement**

All candidates for a Bachelor of Arts degree must achieve proficiency through level IV (course number 202) of a foreign language. Proficiency shall be demonstrated by successful completion of foreign language IV or, with the approval of the chairperson of the Foreign Languages Department, a course for which level IV is a prerequisite. The Foreign Language Department offers guidance in placing individual students at a level appropriate to their background and ability.

International students in a BA degree program do not need to complete the foreign language requirement, as English is their second language. The language of their native country satisfies the requirement.

Some Bachelor of Science programs also have a foreign language requirement. BS candidates should consult with their department chairperson or academic advisor to determine if a foreign language is required in their program.

### **General Education**

<http://www.lockhaven.edu/generaleducation/>

General education is a required program of study developed and approved by Lock Haven University faculty to ensure that our students acquire a broad intellectual context for their majors as well as a foundation for the complex and multiple roles they will undertake as citizens of the twenty-first century. As students begin upper-division study, faculty will assume that they have developed the ability to communicate effectively in both written and oral form and demonstrate an appropriate level of numerical literacy.

LHU students, as citizens, will have futures extending beyond service to professions and places of employment. They will have responsibilities as members of a family, community, nation, and world. Increasingly, graduates will be called upon to make informed choices regarding public policy, health care, education, the environment, and technology. While a general education program cannot equip them with information relevant to every situation they will encounter, the university's goal is to provide them with the skills, research tools, modes of inquiry, and knowledge of the arts, humanities, and social and natural sciences that will assist them in making responsible decisions.

In creating a general education program, the faculty make certain assumptions about the future: on-going advances in technology, rapidly expanding sources of information, growing global interdependence and increasing multicultural interactions, changing natural resources, varying practices in labor and employment, and revised conceptions of the nature of knowledge. Lock Haven University faculty have developed a wide variety of educational experiences that allow students to explore topics from different points of view and to integrate information from various sources with the intent of creating knowledge or forming new perspectives.

The LHU general education program challenges students intellectually, encourages them to raise questions and helps them in establishing the foundation for active and effective participation in an ever-changing world and complex future.

See additional general education information before the program requirements later in the catalog.

An up-to-date list of courses and general education requirements is available at <http://www.lockhaven.edu/generaleducation/>.

### **Global Honors Program**

<http://www.lockhaven.edu/honors/>

Qualified students from all majors are encouraged to apply to the Global Honors Program. We are seeking freshmen with combined SAT scores of 1220+, a high school GPA of 3.5+, and a high school class rank of 80%+. Students already enrolled at LHU with a grade point average of 3.2+ may seek admission as well. In the evaluation of applications, weaknesses in one area may be offset by strengths in another.

At LHU, the Global Honors Program provides students with many opportunities for intellectual development and personal enrichment. Courses for the program, taught by outstanding professors, are small and discussion-based, featuring a student-centered approach. In the classroom and beyond, honors students work closely with their professors; many students present their research at regional or national conferences. We host an annual Honors Research Competition, judged by faculty from diverse disciplines, to showcase and reward the high-caliber work produced by students in the program. Our robust co-curricular programming, including featured speakers, panel discussions, and public-issues forums, fosters academic and intellectual inquiry. Events developed in support of the Global Theme are typically open to the university and surrounding community, and they encourage connections between academic work and lived experience. Honors students have access to the Honors House, a "home-away-from-home" on campus, complete with a common room, activity rooms, and a computer lab. This dedicated space fosters the close-knit community that is a distinguishing feature of our honors program.

The Global Honors Program epitomizes LHU's commitment to academic excellence. Honors courses satisfy General Education requirements, required of all students, so they do not require the completion of additional credits. Honors courses provide students with enhanced educational experiences. For example, many honors courses favor an interdisciplinary approach, stimulate deep engagement with classic or primary sources, and provide abundant opportunities for students to contribute to discussions. The honors curriculum affords students a rigorous grounding in the rudiments of specific disciplines or the conceptual foundations of human civilizations, and they promote the development of high-level intellectual skills. Infused with the spirit of inquiry that powers the traditional liberal-arts curriculum, the program encourages the maximum realization of each student's capacity for independent learning. All honors students are automatically considered each year for merit-based scholarships reserved for students in the program.



The Global Honors Program draws on the university's strength in international education by encouraging honors students to study abroad, ideally during the sophomore year. Successful students may receive special recognition, officially noted on transcripts and diploma, in one of two categories: Global Honors and Global Honors with Distinction. Both require the completion of an individualized program of study in the last two years, culminating in a Capstone Project.

Honors courses are open to all students, space permitting. Non-honors students must attain permission of the instructor and the Honors Director.

### **Grade Appeal Policy**

The goal of this grade appeal policy is to establish a clear, fair process by which students can contest a course grade that they believe has been awarded in a manner inconsistent with university policies or that has resulted from calculation errors on the part of the instructor. The appeal process starts within 20 days after a student receives the final course grade.

#### **Informal Procedure**

If a student believes the final course grade awarded by the instructor has resulted from an error in calculation or recording of the grade or reflects an unwarranted deviation from grading procedures and course outlines set out at the beginning of the course, the student should discuss the matter with the instructor and if unsatisfied, with the department chair in the department in which the course was offered.

#### **Formal Procedure**

If a student believes that an improper final course grade has been assigned and is dissatisfied with the outcome of an informal procedure, a formal appeal may be filed on the following grounds:

1. Error in Calculation or Recording of a Grade.
2. Arbitrary and Capricious Evaluation: Significant and unwarranted deviation from grading procedures and course outlines set at the beginning of the course (ordinarily during the first week of the course) or a grade assigned arbitrarily and capriciously on the basis of whim, impulse or caprice. The student may not claim arbitrariness and capriciousness if he/she disagrees with the subjective professional evaluation of the instructor.

The following steps must be followed:

The student submits a written statement to the instructor explaining his/her request to review the grading procedure.

Possible outcomes from step 1:

- A. Faculty member finds in the student's favor -- a grade change will be processed at the Registrar's Office.
- B. Faculty member determines original grade is appropriate -- the student will be notified in writing by the faculty member within 10 working days. (Reasonable and necessary extensions of time may be granted by the reviewing officer at any point in the process.)

If the outcome is 2B and the student is not satisfied with that decision, the student may prepare a written complaint which contains supporting evidence and indicates the desired solution. This complaint must be submitted to the dean of the college in which the course is offered and the faculty member within 20 regular semester class days from the dated response of the faculty member.

Within 10 working days, the dean shall hear the evidence by each side and may collect further evidence. Both sides must be given access to such evidence and given the opportunity to rebut it. The dean shall attempt to achieve a negotiated settlement and will notify in writing the student and the faculty member of his/her findings and decision within 10 working days of the meeting. If the student is not satisfied with the dean's decision, he/she may appeal in writing to the Provost/Executive Vice President within 10 working days of the dated response of the dean. The appeal must be accompanied by a copy of the written complaint that was given to the dean and faculty member in step 3.

Within 10 working days, the Provost/Executive Vice President shall hear evidence by each side and may collect further evidence. Both sides must be given access to such evidence and given the opportunity to rebut it. The Provost/Executive Vice President shall attempt to achieve a negotiated settlement and will notify in writing the student and the faculty member of his/her decision within 10 working days.

The Provost/Executive Vice President shall take whatever action is necessary to restore equity in the situation. This includes the assignment of an equitable letter grade or a W or P where appropriate. The decision of the Provost/Executive Vice President shall be final within the University.

### **Grade Change Policy**

It is the student's responsibility to review final grades at the close of a semester or other academic session. In normal circumstances, grade changes can be made only by the instructor issuing the grade. In exceptional circumstances (e.g. death, retirement, or permission of the instructor) the department chairperson may be permitted to make a grade change.

Only grade changes, excluding incomplete grades (see below), due to grade miscalculation are accepted after the grade entry deadline of each semester/session. The change is completed in writing at the Registrar's Office no later than four weeks into the semester (fall or spring) following the session/semester for which the course was registered. (Ex: A course registered and graded in the fall semester or winter intersession may be changed up to four weeks in to the spring semester; a course registered and graded in the spring semester or summer sessions may be change up to four weeks in to the fall semester.)

Incomplete grades are assigned according to the Incomplete Grade Policy and are changed online through the published deadline.

"EW" grades, once issued, may not be changed. This grade is not only an academic indicator that the student unofficially withdrew (stopped attending class but did not properly withdraw and therefore did not finish the course requirements) but also is used for federal financial aid compliance. Once the grade is issued, financial aid may be impacted and cannot be reversed.

No grades may be changed for a student after the student has graduated. The student's cumulative grade point average is frozen at the time of graduation and cannot be changed.

Students who have reason to believe a grade was incorrectly issued will follow the University's Grade Appeal Policy.

### **Grading**

Grades are a reflection of academic performance. Prospective employers and graduate schools consider grades when making decisions about employment or admission. Grades are a record of achievement satisfying learning, interest, application, and motivation.

Grades are submitted by faculty using online grade entry. Grades are due by the deadline on the academic calendar, typically Tuesday at 3 PM following the close of a semester.

A quality point is the unit of measurement of the quality of work done by the student. For graduation, students must have to their credit twice as many quality points as they have semester hours, or a 2.0 GPA. Quality points are computed as follows:

Letter Grade	Quality Points Per Credit Hour	Interpretation
A	4.000	Excellent
A-	3.700	
B+	3.300	
B	3.000	Good
B-	2.700	
C+	2.300	
C	2.000	Fair
C-	1.700	
D+	1.300	
D	1.000	Passing
E	.000	Failure
EW	.000	Failure (unofficial withdrawal)
F		Failure*
P		Passed*
CH		Credit w/Honors*
CR		Credit*
NC		No Credit*
I		Incomplete*

AU		Audit*
W		Withdrawal*
<p>* Does not affect GPA; "passed" indicates a grade of "D" or better.  The GPA is obtained by dividing the total quality points a student has earned at LHU by the total of semester hours attempted or scheduled (less those semester hours taken as pass/fail, repeated, or credit/no credit or transferred).</p>		

To compute a grade (or quality) point average for a semester, multiply the value of each grade earned by the credit hours of the course; add up all the products, and divide that sum by the total number of credit hours for the semester.

Example:

Course	Course Credit Hours	Grade	Quality Points (Value of Grade)	Quality Points Earned
ENGL100	3.0	B	3.0	9.0
PSYC100	3.0	C	2.0	6.0
SOCI101	3.0	A	4.0	12.0
BIOL101	3.0	C+	2.3	6.9
ADAC100	1.0	B-	2.7	2.7
TOTALS	13.0			36.6
36.6 quality points divided by 13.0 credit hours = 2.815 (semester GPA)				

### **Graduation/Commencement Ceremony Participation**

Prospective December graduates will participate in the December commencement ceremony.

Prospective May and August graduates (of the same year) will participate in the May commencement ceremony.

### **Graduation Residency Requirements**

#### **Introduction**

The purpose of this procedure and standard is to ensure the integrity of degrees awarded by institutions within Pennsylvania's State System of Higher Education. This codifies the practice initially endorsed by the Council of Presidents in 2008 with its subsequent revisions.

#### **Definitions**

- A. **Active-Duty Service Members:** Full-time duty in the active Military Service of the United States. This includes members of the Reserve Components serving on active duty or full-time training duty, but does not include full-time National Guard duty.
- B. **Collaborative Programs:** Collaborative programs are ones where two or more institutions offer courses in a degree program. They have been approved by the Office of the Chancellor and typically have a written agreement between a state system university and another academic partner(s).

#### **Procedure/Standard**

##### **A. Undergraduates**

The following requirements apply to **undergraduate students**:

1. All first baccalaureate degree students will take at least 30 of their last 60 credits from the degree-granting university; the university may not require a student to take more than 30 credits.
2. All first associate degree students will take at least 15 of their last 30 credits from the degree-granting university; the university may not require a student to take more than 15 credits.
3. All first baccalaureate and associate students will take at least 50% of credits required for the major (including required cognate courses) from a State System university.
4. The degree-granting State System University may not require more than 50% of the major credits (including required cognate courses).
5. All students completing their first undergraduate certificate must take at least 50% of the credits required for the certificate from a State System University.
6. All students completing their first graduate certificate must take at least 50% of the credits required for the certificate from a State System University.
7. All students completing their first undergraduate minor must take at least 50% of the credits required for the minor from a State System University.

The following requirement is for students enrolled in **undergraduate degree completion** programs (students who have completed a minimum of 60 credits elsewhere and enroll in a State System institution with the intent of completing a bachelor's degree):

- All first baccalaureate degree completion students will take at least 30 of their last 60 credits from the degree-granting university; the university may not require a student to take more than 30 credits.

Exceptions to the undergraduate requirements:

1. Junior/Senior year Study Abroad semesters or other formal Articulation agreements in which State System students may reverse-transfer credits back to their degree-granting State System University are exceptions to this policy.
2. Additional exceptions are to be approved by the Office of the Chancellor's Division of Academic and Student Affairs.

**B. Undergraduate Active-Duty Service Members**

As a **military friendly system** the following apply:

1. For active-duty service members, the academic residency requirements will not exceed 25 percent of the undergraduate degree program.
2. If the undergraduate degree is available 100 percent online, the academic residency requirements will not exceed 30 percent of the undergraduate degree program.
3. For active-duty service members, the academic residency requirements may not include a "final year" or "final semester" requirement. The residency requirement of 30 of the last 60 credits will be waived. This waiver may remain in effect for 1 year following discharge from active duty. For example, a senior Bloomsburg University student-soldier is deployed to Kuwait or has required training in Texas.
4. He/She will be away for a significant period of time.
5. If he/she were able to complete the last credits and courses through California University of Pennsylvania distance education, transfer them back to Bloomsburg University, the program and 120 credit requirements would have been met but not the residency. Waiving the residency requirement ensures the student is not disadvantaged due to their service. In addition, each program is expected to confirm with their respective accrediting agencies the allowable flexibility in order to meet the needs of active-duty service members.

**C. Graduate Students**

1. For master's students, at least 2/3 of the credits meeting program requirements must be taken from the University offering the degree.
2. Doctoral residency requirements are determined at the program level.

**Note** that these set the minimum number of credits that must be taken "in residence" and that universities can limit the number of hours that will be allowed to transfer into a graduate program.

**Active-duty service members** who are graduate students will be handled on a case by case basis.

Exceptions are to be approved by the Office of the Chancellor's Division of Academic and Student Affairs.

**D. Collaborative Programs**

1. For collaborative programs approved by the Office of the Chancellor, residency requirements will be consistent with the collaborative agreement.

**Note** also that collaborative programs will be identified such that residency can be met consistent with the collaborative agreement.

**Note:** In addition to the Academic Residency Requirement students must also meet requirements related to Advance Standings and other related degree requirements. System Procedure/Standard Number 2012-13: *Academic Degrees*; "Credit for Major" is defined as courses required for the major including required cognate courses in related discipline. The major program should not exceed 42 credit hours in the Bachelor of Arts degree while the major program should be comprised of at least 40 credits but not exceed 60 credit hours in the Bachelor of Science degree.

**Graduation with Latin Honors**

**Commencement Ceremony Recognition**

Baccalaureate Degree Candidates - Students who have completed at least forty-five (45) semester hours from Lock Haven University and have the required cumulative grade point average for honors designation will be included in the program and announced at commencement. Final determination of honors will be based upon the student's cumulative grade point average at the end of the last semester after all grades are finalized.

Associate Degree Candidates – Ineligible for Latin honors

Master Degree Candidates – Ineligible for Latin honors

#### Diploma Notation

Baccalaureate Degree Candidates -- Students who have completed at least sixty (60) semester hours from Lock Haven University and have the required cumulative grade point average for honors designation will have a notation on the diploma. Final determination of honors will be based upon the student's cumulative grade point average at the end of the last semester after all grades are finalized.

Cum Laude	3.500-3.599
Magna cum Laude	3.600-3.749
Summa cum Laude	3.750-4.000

Associate Degree Candidates – Ineligible for Latin honors

Master Degree Candidates – Ineligible for Latin honors

#### NOTES:

- (1) Students who have declared academic amnesty during their academic career must meet the semester hour criteria with coursework completed after declaring amnesty.
- (2) Students who have earned a bachelor's degree from LHU and return for another degree must meet the semester hour criteria with coursework completed after earning the initial degree because the student's grade point average is restarted upon return.

#### **Incomplete Grade Policy**

Students who receive "Incomplete" grades for their coursework must make an arrangement with the instructor outlining what is required to complete the course. LHU will not permit students to graduate if any incomplete grades remain on the student's academic transcript.

At the end of the *4th week* of the next subsequent regular semester, the incomplete grade converts to an "E" for GPA calculations, assuming the student has not completed the assignments or the instructor has not turned in an alternate grade.

Faculty members may request that students complete work prior to the default period and turn in a change of grade form based upon the arrangement with the student.

Faculty may request an extension to the four-week deadline through the Registrar's Office. However, no extension may go beyond the last day of the semester in which the incomplete is to be completed.

#### **Independent Study**

The purpose of independent study is to permit outstanding students the opportunity to undertake advanced study in a specialized area not normally provided by regularly scheduled courses. To qualify, a student must have earned at least 30.0 semester hours and have a minimum grade average of 2.000.

Independent studies may not duplicate existing departmental courses, either in name or content, nor are independent studies available during the summer, except in the case of in-service teachers or other extraordinary situations.

The procedure for applying for an independent study is to confer with the faculty sponsor, complete an independent study application packet from the dean of the college providing the independent study and submit the completed application to the department chairperson, the student's advisor, the dean of the college providing the independent study, and the Provost/Executive Vice President.

Evaluation of independent studies is the responsibility of the faculty sponsor and may include a written paper, an oral report, or other project materials appropriate to the nature of the study. Credit is variable (one to three semester hours) depending upon the

nature of the study. Under normal circumstances, independent study projects will be of such length and complexity that they may be completed in one semester. Students desiring to do additional work on the problem, or to do a problem for the period of a year or more, must submit successive applications through the normal channels.

The final written report shall be submitted to the sponsor. The sponsor shall file the written report with the Office of the Provost/Executive Vice President at the time that the grade is submitted.

<https://myhaven.lhup.edu/ICS/Registrar/Forms.jnz>

### **Individualized Instruction**

Under certain prescribed conditions, students may take courses that are included in the university catalog but that are not being currently offered on an individual basis. A limited number of students are permitted to take an individualized instruction with the same instructor during the same semester. Application is made in the same manner as independent study.

<https://myhaven.lhup.edu/ICS/Registrar/Forms.jnz>

### **International Studies/Center for Global Engagement**

<http://www.lockhaven.edu/iis/>

The Center for Global Engagement (CGE) is the home away from home for international students attending Lock Haven University. The CGE is the place to come for help understanding the American University system including teaching styles, the grading system, classroom culture, and working with professors, as well as student rights and responsibilities. It is the place to come when you need assistance or have a pressing issue. The staff at the CGE is here to help you have a positive experience in the U.S.A. and in central Pennsylvania. The CGE also offers programs especially for international students such as the Eagles Explorer Program, the International Student Success Series, and the International Friendship Program. For more information on these programs, go to the CGE website <http://www.lockhaven.edu/iis/programs.html>.

### **Internship Programs**

An internship is any off-campus program for which college credit is awarded and which serves as a vehicle for providing adjunct practical experience related to on-going professional development at Lock Haven University.

The university offers interested and qualified students an opportunity to participate in various internship programs which provide field experiences to supplement classroom learning. Internship information is available from the appropriate dean.

Qualified students must have completed 60 semester hours of credit and have a 2.5 GPA overall and in the major. Students may apply for a total of 15 semester hours of internship credit. These programs are not mandatory and may require additional justification for administrative approval.

<https://myhaven.lhup.edu/ICS/Registrar/Forms.jnz>

### **The Harrisburg Internship Semester (THIS)**

The Dixon University Center at Harrisburg of the Pennsylvania State System of Higher Education sponsors a student internship each semester during the academic year for one outstanding student from each of the 14 System universities. The major purpose of the internship program is to provide students with an important practical experience and an enriching academic experience. Students are placed in offices where they participate directly in public policy formulation.

*The internship experience is structured in the following way:*

#### **I. GNED369 Harrisburg Government Internship**

This is the practical component of the internship experience, which includes the day-to-day work experience in a government position.

#### **II. GNED369 Harrisburg Government Intern Project**

One of the many advantages of studying in Harrisburg is the opportunity to develop direct knowledge of state politics and public policy development. The intern project component of the THIS project serves three purposes. First, it encourages students to focus their attention on a particular aspect of state government politics and policy making. Second, the requirement affords students an

opportunity to develop an in-depth knowledge about that subject. Third, it gives the students the opportunity to develop skills in public research and preparing a formal written presentation.

### **III. POLI369 Seminar on Public Policy making in Harrisburg**

The seminar meets one night per week at the Dixon University Center. This seminar explores policy making within the Harrisburg community by looking carefully at both the institutions which shape the state's political life and those individuals who play a major role in influencing institutional behavior. The seminar serves a two-fold purpose: first, to introduce students to concepts that will help them understand the political environment in which they will be working on a daily basis; second, to provide a focal point for integrating their various learning experiences in Harrisburg.

Prospective student interns are chosen in a process which is determined on each campus. The student intern must, at the time of appointment, have maintained at least a 3.0 quality point average in 45 undergraduate credit hours. A student may be chosen from any academic major and the credits from this program may be applied to any discipline at the approval of the appropriate department(s).

### **Liberal Arts Seminars**

Liberal arts seminars in the areas of the humanities, social sciences, and natural and mathematical sciences provide a context to examine inter-relational aspects of knowledge and experience. Two seminars from different areas is required of all students majoring in any of the arts and sciences who are candidates for the Bachelor of Arts degree.

Through small group processes, assigned readings, informal conversations, and papers, seminar participants become involved in a cross-disciplinary environment in which each student is encouraged to develop informed insights and perspectives. Seminars focus on elements of history, culture, and science that influence the continuing development of human value systems and endeavors. The substance of a particular seminar includes consideration of the manner in which knowledge is developed and the impact of particular knowledge on contemporary society and on life as it may be experienced in the future. NOTE: All liberal arts seminars carry the course number 328.

### **Major, Definition, Declaring or Changing**

A major is the main field of study in an academic program. For baccalaureate degrees, the academic major (comprised of core and cognate courses) and general education are the two principal components of the degree. For master's degrees, the academic major (common core), concentration or specialization, and the capstone experience(s) are the principal components of the degree. Academic major can be a sequence of courses, activities, and/or experiences constituting a major field of study, culminating in a credit-based degree or certificate. (*PASSHE definition, 2012*)

Students should select a major as early as they are comfortable making the choice. They should also decide early whether to pursue the Bachelor of Arts or the Bachelor of Science degree. All students will be expected to have declared an academic major prior to the completion of the third semester (45.0 semester hours). Delay in declaring a major may result in spending additional time in completion of a degree.

All students should be aware that there is no assurance they will be able to declare any program they choose. Programs with limited capacity may be restricted or closed.

A student may petition for a change of academic major after having enrolled at LHU. The application will be reviewed with respect to selected aptitude and academic records, which are requested in support of the application. It must be understood that students accepted in a particular major at the time of admission to LHU are not eligible for automatic acceptance into another major within the university at a later date.

### **Majors, List of**

A wide variety of majors is offered. A complete list is available under "Programs of Study."

### **Mid Semester Grades**

At the designated time of each semester, faculty are to submit mid-semester grades via the student information system. Since mid-semester grading is not restricted to low grades, faculty are encouraged to provide all grades so that students are aware of their progress.

All students will be notified to review their academic record for mid-semester grades. Low grades (C-, D+, D, and E) will be e-mailed to the students.

### **Military Training, Credit for**

Students who have completed courses, occupational experiences, and national examinations during military service shall receive credit for courses listed on the Joint Services Transcript (JST), the Army/American Council on Education Registry Transcript System (AARTS), and the Sailor/Marine American Council on Education Registry Transcripts (SMART).

To determine the value of learning acquired in military service and to award credit for learning, the American Council on Education (ACE) Guide to the Evaluation of Educational Experiences in the Armed Services will serve as a guide.

Credit for military training will appear as transfer credit on the student's academic record.

### **Minor, Definition**

A minor is an organized program of study that comprises the fundamental requirements of an academic major (core and cognate courses) equivalent to a minimum of 18 semester hours. As a secondary field of study, the academic minor should reflect a minimum of six credits of advanced standing coursework from the academic major. Exceptions to the advanced standing requirements may be granted on a case-by-case basis per request to the chancellor. (*PASSHE definition, 2014*)

### **Minors, List of**

See Programs of Study

### **Pass-Fail Option**

Each semester a student may be permitted to take one course outside the requirements of his/her major on a pass-fail basis and receive no letter grade in that course. The pass-fail option is limited to 6.0 semester hours in the General Education free elective category. Courses taken on a pass-fail basis are not used in computing a student's GPA.

Students must decide during the first 15 days of registration whether they wish to take the course on a pass-fail basis and, once decided, cannot change that decision. To take a course pass-fail, the student must complete a pass-fail form, available at the Registrar's Office or Clearfield Main Office.

If students repeat a course, they must take it on the same basis as they registered for it originally. Students should exercise extreme caution in choosing this option as employers and other schools frequently are reluctant to accept these grades.

The instructor will not be notified of students taking the course on a pass-fail basis and the Registrar's Office will translate final grades from a letter grade to a pass-fail grade.

### **Post-Baccalaureate Grade Point Average Calculation**

The student's grade point average is "sealed" at the time of baccalaureate graduation. If a student returns for post-baccalaureate or for second degree work, then a new grade point average will be started.

This policy does not extend to an associate degree if the student continues to work toward a bachelor degree or another associate degree at the same institution.

### **Programs of Study**

#### **Major Areas of Study**

<b>Degree</b>	<b>Major</b>	<b>Concentration</b>	<b>College</b>
Bachelor of Science	Accounting		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Applied Computer Science and Information Systems	Data Science	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Applied Computer Science and Information Systems	Interdisciplinary Computing	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Applied Computer Science and Information Systems	Mobile & Game Application Development	Poorman College of Business, Info Syst & Human Svcs



Bachelor of Science	Applied Computer Science and Information Systems	Network and Cybersecurity	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Arts	Art		Liberal Arts & Education
Bachelor of Science	Biology		Natural, Behavioral & Health Sciences
Bachelor of Science	Biology	Biomedical Sciences	Natural, Behavioral & Health Sciences
Bachelor of Science	Biology	Cellular-Organismal	Natural, Behavioral & Health Sciences
Bachelor of Science	Biology	Ecology-Environmental	Natural, Behavioral & Health Sciences
Bachelor of Science	Biology	Marine Biology	Natural, Behavioral & Health Sciences
Bachelor of Science	Business Administration	Business Intelligence	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Business Administration	Entrepreneurship	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Business Administration	Finance and Economics	Poorman College of Business, Info Syst & Human Svcs
Associate of Science	Business Administration	Healthcare Management	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Business Administration	International Business	Poorman College of Business, Info Syst & Human Svcs
Associate of Science	Business Administration	Management	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Business Administration	Management	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Business Administration	Marketing	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Chemistry	Biochemistry	Natural, Behavioral & Health Sciences
Bachelor of Science	Chemistry	Clinical Laboratory Science	Natural, Behavioral & Health Sciences
Bachelor of Science	Chemistry	Forensic	Natural, Behavioral & Health Sciences
Bachelor of Science	Chemistry	Nanoscience	Natural, Behavioral & Health Sciences
Bachelor of Science	Chemistry		Natural, Behavioral & Health Sciences
Bachelor of Arts	Communication	Advertising & Public Relations	Liberal Arts & Education
Bachelor of Arts	Communication	Electronic Media	Liberal Arts & Education
Bachelor of Arts	Communication	Journalism	Liberal Arts & Education
Bachelor of Arts	Communication	Organizational/Presentational Communication	Liberal Arts & Education
Associate of Arts	Criminal Justice		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Criminal Justice		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Criminal Justice	Conservation Law Enforcement	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Disability Community Service		Liberal Arts & Education
Bachelor of Arts	English	Literature	Liberal Arts & Education
Bachelor of Arts	English	Writing	Liberal Arts & Education
	Exploratory Studies		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Arts	Foreign Language	French	Liberal Arts & Education
Bachelor of Arts	Foreign Language	Spanish	Liberal Arts & Education
Bachelor of Science	Geology	Applied Geology	Natural, Behavioral & Health Sciences
Bachelor of Science	Geology	Engineering Geology	Natural, Behavioral & Health Sciences

Bachelor of Science	Geology	Geography-GIS	Natural, Behavioral & Health Sciences
Bachelor of Science	Geology	Water and Environment	Natural, Behavioral & Health Sciences
Bachelor of Science	Health & Physical Education	Aquatics	Liberal Arts & Education
Bachelor of Science	Health & Physical Education	Coaching	Liberal Arts & Education
Bachelor of Science	Health & Physical Education	Sport & PE in Correction	Liberal Arts & Education
Bachelor of Science Education	Health & Physical Education		Liberal Arts & Education
Bachelor of Science	Health Sciences	Applied Health Studies	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Community Public Health Educ	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Exercise Science (Pre-AT)	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Exercise Science 3+2	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Physician Assistant	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Pre Physician Assistant	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Pre-physical Therapy	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Pre-physical Therapy 3+3	Natural, Behavioral & Health Sciences
Bachelor of Science	Health Sciences	Pre-professional	Natural, Behavioral & Health Sciences
Associate of Applied Science	Healthcare Professions		Natural, Behavioral & Health Sciences
Associate of Applied Science	Healthcare Professions	Social Services	Natural, Behavioral & Health Sciences
Bachelor of Arts	History	Public History	Liberal Arts & Education
Bachelor of Arts	History		Liberal Arts & Education
Bachelor of Science	Interdisciplinary Studies	Option 1 ( <i>Specialized program that requires review and approval by a board</i> )	Liberal Arts & Education
Bachelor of Science	Interdisciplinary Studies	Option 2	Liberal Arts & Education
Bachelor of Arts	International Studies	Cultural Studies	Liberal Arts & Education
Bachelor of Arts	International Studies	Global Economy	Liberal Arts & Education
Bachelor of Arts	International Studies	Governance and Conflict	Liberal Arts & Education
Bachelor of Science	Mathematics	Actuarial Science	Natural, Behavioral & Health Sciences
Bachelor of Science	Mathematics	Actuarial Science 3+2	Natural, Behavioral & Health Sciences
Bachelor of Science	Mathematics		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Middle/Elementary Education 4-8	Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Language Arts	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Language Arts-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Language Arts-Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Math-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Mathematics	Liberal Arts & Education

Bachelor of Science in Education	Middle/Elementary Education 4-8	Math-Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Math-Language Arts	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Math-Social Studies	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Social Studies	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Social Studies-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle/Elementary Education 4-8	Social Studies-Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Language Arts	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Language Arts-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Language Arts-Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Math-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Mathematics	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Math-Geology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Math-Language Arts	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Math-Social Studies	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Social Studies	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Social Studies-Biology	Liberal Arts & Education
Bachelor of Science in Education	Middle Level/Special Education	Social Studies-Geology	Liberal Arts & Education
Bachelor of Arts	Music	Marketing	Liberal Arts & Education
Bachelor of Arts	Music	Popular Music/Jazz Studies	Liberal Arts & Education
Bachelor of Arts	Music		Liberal Arts & Education
Bachelor of Fine Arts	Music		Liberal Arts & Education
	Nanotechnology	The 4-year degree programs resulting in BS degrees in Physics (Applied Physics/Nanotechnology) and Chemistry (Nanoscience) have recently been revised. Opportunities exist to gain knowledge and skills in nanoscience and nanotechnology for students in any STEM major (including Biology, Geology, Health Science, and Computer Science). Other program revisions are underway that will continue to utilize our unique facilities that include characterization tools such as SEM, AFM and STM and our level 100,000 clean room facility.	Natural, Behavioral & Health Sciences
Associate of Science Nursing	Nursing		Natural, Behavioral & Health Sciences

Bachelor of Science in Nursing	Nursing		Natural, Behavioral & Health Sciences
Bachelor of Science	Physics	Applied Physics Nanotech	Natural, Behavioral & Health Sciences
Bachelor of Science	Physics	Pre-Engineering	Natural, Behavioral & Health Sciences
Bachelor of Science	Physics	Traditional	Natural, Behavioral & Health Sciences
Bachelor of Arts	Political Science	Pre-law	Liberal Arts & Education
Bachelor of Arts	Political Science		Liberal Arts & Education
Bachelor of Science in Education	PreK-Grade 4 / Special Education		Liberal Arts & Education
Bachelor of Science in Education	PreK-Grade 4/Early Childhood Education		Liberal Arts & Education
Bachelor of Applied Science	Professional Studies	Entrepreneurship	Liberal Arts & Education
Bachelor of Applied Science	Professional Studies	Management	Liberal Arts & Education
Bachelor of Applied Science	Professional Studies	Spanish	Liberal Arts & Education
Bachelor of Arts	Psychology		Natural, Behavioral & Health Sciences
Bachelor of Science	Psychology		Natural, Behavioral & Health Sciences
Bachelor of Science	Recreation Management	Community-Commercial	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Recreation Management	Fitness Management	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Recreation Management	Outdoor Management	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Recreation Management	Therapeutic	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science in Education	Secondary Education-Biology/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-Chemistry/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-English/Special Education		Liberal Arts & Education
Bachelor of Science in Education	Secondary Education-Earth Space Science/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-General Science/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-Math/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-Physics/Special Education		Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education-Social Studies/Special Education		Liberal Arts & Education
Bachelor of Science in Education	Secondary Education	Biology	Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education	Chemistry	Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education	Earth & Space Science	Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education	English	Liberal Arts & Education
Bachelor of Science in Education	Secondary Education	General Science	Natural, Behavioral & Health Sciences

Bachelor of Science in Education	Secondary Education	Mathematics	Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education	Physics	Natural, Behavioral & Health Sciences
Bachelor of Science in Education	Secondary Education	Social Studies	Liberal Arts & Education
Bachelor of Science	Social Work		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Sociology	Delinquent Youth Analysis	Liberal Arts & Education
Bachelor of Science	Sociology	Industry and Economics	Liberal Arts & Education
Bachelor of Science	Sociology		Liberal Arts & Education
Bachelor of Science	Sport Administration		Poorman College of Business, Info Syst & Human Svcs
Bachelor of Science	Sport Administration	Accelerated Program	Poorman College of Business, Info Syst & Human Svcs
Bachelor of Fine Arts	Studio Arts	Graph-Online Interactive Design	Liberal Arts & Education
Bachelor of Fine Arts	Studio Arts		Liberal Arts & Education
Associate of Arts	Sustainability Studies		Poorman College of Business, Info Syst & Human Svcs

### Minor Areas of Study

*Minors are not recorded on a student's academic record until the student's degree is earned.*

<b>Minor</b>	<b>College</b>	<b>Minor</b>	<b>College</b>
Applied Computer Science & Information Systems	Poorman College of Business, Info Syst & Human Svcs	Geoscience	Natural, Behavioral & Health Sciences
Alternative Education	Liberal Arts & Education	History	Liberal Arts & Education
Anthropology	Liberal Arts & Education	International Studies	Liberal Arts & Education
Aquatics	Liberal Arts & Education	Leadership Studies	Natural, Behavioral & Health Sciences
Art History	Liberal Arts & Education	Latin American Studies	Liberal Arts & Education
Biology	Natural, Behavioral & Health Sciences	Mathematics	Natural, Behavioral & Health Sciences
Business	Poorman College of Business, Info Syst & Human Svcs	Middle School Mathematics	Natural, Behavioral & Health Sciences
Chemistry	Natural, Behavioral & Health Sciences	Nanotechnology	Natural, Behavioral & Health Sciences
Coaching	Liberal Arts & Education	Philosophy	Liberal Arts & Education
Communication	Liberal Arts & Education	Physics	Natural, Behavioral & Health Sciences
Community Health	Natural, Behavioral & Health Sciences	Political Science	Liberal Arts & Education
Early Childhood Education	Liberal Arts & Education	Psychology	Natural, Behavioral & Health Sciences
Economics	Poorman College of Business, Info Syst & Human Svcs	Recreation Management	Poorman College of Business, Info Syst & Human Svcs
English	Liberal Arts & Education	Sociology	Liberal Arts & Education
Entrepreneurship and Innovation	Poorman College of Business, Info Syst & Human Svcs	Spanish	Liberal Arts & Education
Environmental Studies	Poorman College of Business, Info Syst & Human Svcs	Special Education	Liberal Arts & Education
Fine Arts/Music	Liberal Arts & Education	Sport & Exercise Psychology	Poorman College of Business, Info Syst & Human Svcs
French	Liberal Arts & Education	Studio Art	Liberal Arts & Education
Geography	Liberal Arts & Education	Theatre ( <i>Offered as a partnership through</i>	Liberal Arts & Education

		<i>another State System University)</i>	
		Women and Gender Studies	Liberal Arts & Education
<b>Poorman College of Business, Information Systems and Human Services</b> Dean – Dr. John Nauright Dean’s Assistant – Ms. Caitlyn Kovach Administrative Assistant – Ms. Ginny Snyder Akeley Hall 118 Phone: 570-484-2136	<b>College of Natural, Behavioral and Health Sciences</b> Dean – Dr. Jonathan Lindzey Dean’s Assistant – Ms. Danna Bressler Administrative Assistant – Ms. Cheri Dolan East Campus J108 Phone: 570-484-2204	<b>College of Liberal Arts and Education</b> Dean – Dr. Kyoko Amano Dean’s Assistant – Ms. Kelly Hibbler Administrative Assistant – Ms. Tammie Allen Sloan 105-106 Phone: 570-484-2137	

### **Repeat Policy**

<http://www.lockhaven.edu/about/policies.html>

For Undergraduate Students:

Undergraduate students will be limited to a maximum total of six repeats.

A single course can be repeated a maximum of two times (shows on transcript maximum of three times).

The most recent grade (regardless of whether it is higher or lower) will be the grade used for the GPA calculation.

For Graduate Students:

Graduate students can repeat a single course for grade improvement only once.

Graduate students will be limited to a maximum total of two repeats across the program.

The most recent grade (regardless of whether it is higher or lower) will be the grade used for the GPA calculation.

Note: For Post Baccalaureate students, the Course Repeat Policy will be the same as the one for Graduate Students. That is, Post Baccalaureate students can repeat a single course for grade improvement only once with a limit of a maximum total of two repeats during the Post Baccalaureate career.

### **Reserve Officers Training Corps (ROTC)**

See “Army Reserve Officers Training Corps (ROTC).”

### **Returning to Lock Haven University**

Students who have missed a semester (fall or spring) of LHU attendance and want to return will follow the [Request to Resume Studies process](#).

Students who have graduated from LHU and want to return to complete additional coursework or another undergraduate degree program will follow the [Request to Resume Studies process](#).

### **Student Responsibility for Academic Programs**

Ultimate responsibility for the successful completion of a degree program lies with the student; therefore, the student must know and observe the academic policies and regulations of the university and must meet the requirements for graduation. Students must work closely with an advisor in examining program and course requirements.

### **Study Abroad**

<http://www.lockhaven.edu/iis/>.

The Center for Global Engagement (CGE), located in Ulmer Hall 200, offers study abroad opportunities to students of any major. With over 30 partner university locations on six continents (North America, South America, Oceania, Europe, Asia, and Africa), students can work with their academic advisors and the CGE staff to choose the partner institution that best fits their academic

needs and interests. Semester and year-long programs are based on a bed for bed exchange agreement with LHU's partners. Students pay LHU tuition and fees and earn course credits as if they were on campus. Students pay room and board to the partner University. Other international opportunities include faculty-led programs during Winter Intersession, Spring Break and summer, and student-teaching placements (South Korea and Uganda) for education majors. Additional information is available from the Center for Global Engagement located in Ulmer Hall 200 or at the above web link.

## **Syllabus**

Prior to the end of the first week of the semester, the instructor will distribute to each student and/or disseminate through a course shell online, in each course and section a written and dated course syllabus/course outline, which must contain or link to the following information:

1. The instructor's name, department/program, course number and title, semester/days/time of class, office location, office hours, email address, and telephone number.
2. Course goals and learning outcomes.
3. Attendance and/or participation policies for the course.
4. A list of texts and/or additional resources such as software for the course, indicating which are required and which are optional.
5. A list of topics to be covered and the activities expected from the student, including course requirements, such as papers, projects, and examinations (with due dates if possible).
6. The method by which the student's final grade in the course will be determined.
7. Policy on work handed in late and makeup examinations.
8. A statement indicating each student is responsible for completing all course requirements and for keeping up with all activities of the course (whether the student is present or not).
9. Statements regarding Academic Dishonesty and Classroom Behavior.
10. Statement regarding Disability Services and accommodations.
11. Statement regarding Emergency contact information.

## **Transfer Credit**

Lock Haven University accepts credits from regionally accredited colleges and universities.

Regional accreditations include the following:

- [Middle States Association of Colleges and Schools](#)
- [Northwest Commission on Colleges and Universities](#)
- [North Central Association of Colleges and Schools](#)
- [New England Association of Schools and Colleges](#)
- [Southern Association of Colleges and Schools](#)
- [Western Association of Schools and Colleges](#)

Credits from either non-accredited institutions or institutions not accredited by the above will be reviewed for possible acceptance upon receipt of a course syllabus and through the Transfer Credit Appeal process (see Transfer Credit Appeal at the end of this document). Courses from non-accredited institutions or institutions not accredited by the above that are included in an approved articulation agreement will transfer without pursuing an appeal.

Courses from non-US institutions must be evaluated by [World Education Services](#) (WES; phone 212-966-6311) with a copy of the evaluation sent to LHU for a review of possible credit transfer. Other reputable foreign credential evaluations will be accepted. LHU complies with the [PASSHE Student Transfer Policy](#) and the [Pennsylvania statewide transfer and articulation requirements](#). Program-to-Program Articulation agreements can be found at [patrac.org](#).

### **Evaluation**

All courses presented for transfer will be reviewed by the Registrar's Office and posted to a student's academic record if they meet the criteria of being acceptable.

Credit for a specific course matching the goals, objectives, outcomes, and credit hours of an LHU course will be awarded. If there is no specific course at LHU but there is sufficient academic content in a course, elective credit will be awarded in either the discipline of the transfer course or for general education.

Only courses in which a grade of "D" (1.0) or higher is earned will be transferred. (See exception related to [PASSHE Student Transfer Policy](#) below.)

### **Exclusions**

- Courses which generally do not transfer include, but are not limited to, vocational courses, technical, and remedial/developmental courses.

- Courses graded on a pass/fail basis do not transfer (exception for courses that are part of an approved articulation agreement).
- Courses previously taken at LHU may not be repeated elsewhere and transferred back to LHU, unless student previously received a failing grade ("E").

### **Calculations**

Transfer grades are not included in the computation of LHU grade point averages. (See exception related to [PASSHE Visiting Student Policy](#) below.)

Transfer credits are used for total hours toward graduation requirements.

Credits for courses from institutions that operate on a quarter-hour system will be converted to semester hours by multiplying the quarter hours by .667.

### **Limitations**

There is no minimum or maximum number of credits which will transfer.

- For an undergraduate degree, at least 50% of a student's major credits must be taken from a State System university.
- For a graduate degree, at least 2/3 of the credits meeting program requirements must be taken from LHU.
- For an undergraduate degree, at least 30 semester hours of the student's last 60 semester hours must be taken from LHU.

There is no "age limit" on courses. However, if a department feels there has been significant content change, a student may be required to forfeit the transfer credit and complete the course.

### **Credit for Prior Learning**

LHU awards credit for CLEP, AP, IB, and DANTES based on the exam and the percentile/grade earned.

LHU awards credit for military experience using the American Council on Education (ACE) Guide to the Evaluation of Educational Experience in the Armed Services as a guide.

Other non-transcripted prior learning credit may be awarded at the discretion of the academic department which would normally offer the content of the learning. This is typically done through the Credit by Exam process.

### **Transfer Credit Appeal**

Lock Haven University provides students with the opportunity to appeal how courses have transferred (or were not evaluated for transfer entirely).

1. Complete the Transfer Credit Appeal Form
2. Submit the Appeal Form and supporting documentation to the academic department that normally offers the course.
3. The academic department will review and forward the recommendation to the Registrar's Office.
4. If there is still a question about a course's transferability after the department makes a recommendation, the student may request a review by the dean of the college in which the discipline of the course is housed.

**Exception to the exclusion of transfer grades from computation of LHU grade point averages** under the [PASSHE Visiting Student Policy](#):

1. This policy allows an undergraduate student to take advantage of courses available across the System, without loss of institutional residency, eligibility for honors or athletics, or credits toward graduation at the home institution.
2. Students participating under this arrangement will have both credits and grades accepted by LHU.
3. A *Visiting Student Approval Form* is available at the Registrar's Office and must be completed prior to participating under this arrangement.

### **Undergraduate Enrollment in Graduate Courses**

Undergraduate students meeting the following criteria may enroll in graduate courses for graduate credit.

The student must:

- Be in the last semester of the Bachelor's program and eligible for graduation at the completion of the semester.
- Be in Good Academic Standing with a minimum 3.0 GPA
- Apply to the graduate program and be provisionally accepted.
- Restrictions -- Registration is limited to a maximum of 6.0 graduate credits; the graduate credits will not be counted toward requirements needed for the Baccalaureate degree.

### **Veteran Preference in Course Scheduling Policy**

*Act 46 of 2014 requires public institutions of higher education in Pennsylvania to provide veteran students, as defined in the Act, with preference in course scheduling. Non-compliance may be reported to the Pennsylvania Department of Education by submitting the Higher Education Student Complaint form found at [www.education.state.pa.us](http://www.education.state.pa.us).*

**Definition:**



Veteran Student is an individual who:

- Has served (or is currently serving) in the United States Armed Forces, including a reserve component and National Guard;
- Was discharged or released from such service under conditions other than dishonorable; and
- Is considered an active student (enrolled in courses) at Lock Haven University.

Course Scheduling Preference is:

- Assignment to register with Lock Haven University's "priority" registration groups.
- The "priority" registration groups register one day prior to students with the same classification (SR-senior, JR-junior, SO-sophomore, FF/FR-freshman). See *sample schedule* for example of priority registration.
  - Veteran students must not have any financial or other university holds that prevent registration.
  - Veteran students must receive registration clearance from their academic advisor in order to access online registration.
  - Veteran students must meet all course requisites, if any, and all section requirements, if any, to register for a given course/section.

Student eligibility requirements:

- Must be enrolled at Lock Haven University
- Must meet the definition of veteran or active-duty serviceperson
- Must provide proof of veteran (other than dishonorable discharge) or active-duty status

Process for verifying eligibility:

- Self-identify as a veteran or active-duty serviceperson
- Provide appropriate documentation to support identification. This is likely a DD214 to show discharge status of anything other than dishonorable. However other documentation will be considered provided it clearly identifies the student and his/her United States Armed Forces service status.
- All students receive yearly email (early fall semester) regarding process to self-identify. Additional follow up is done for students who have identified through the admissions or financial aid process to ensure all veterans are contacted and given the opportunity to take advantage of the priority registration.

**Point of Contact for Course Scheduling Preference:**

Jill R. Mitchley, Registrar

[jmitchle@lockhaven.edu](mailto:jmitchle@lockhaven.edu)

570-484-2526

Ulmer Hall 224

**Visiting Student Program, Pennsylvania State System of Higher Education (PASSHE)**

A. Purpose

To facilitate undergraduate student enrollment at institutions of the Pennsylvania State System of Higher Education to take advantage of courses available across the System, without loss of institutional residency, eligibility for honors or athletics, or credits toward graduation at the home institution.

B. Standards

1. The student must be matriculated at the home university with a minimum of 12 college-level credits and be in good academic standing.
2. Students may take a maximum of 24 credits via the Visiting Student Policy.
3. The student who presents evidence of good standing at the home university will be allowed to register for courses at other PASSHE universities. The visiting student priority level for registration will be determined by each university.
4. All credits and grades accrued at other PASSHE universities shall be accepted in full by the home university and thereafter treated as home university credits, residency, and grades.
  - a. It is the responsibility of the student to work with the student's advisor at the home institution regarding applicability of credits towards graduation requirements at the home institution consistent with PASSHE procedures.
  - b. It is the responsibility of the student to complete the Visiting Student Notification Form and submit to the home institution prior to enrolling in courses at another PASSHE institution.

- c. Students cannot use the Visiting Student Program to repeat courses.
  - d. Students cannot use the Visiting Student Program for internship or practica that are required for licensure or certification without the express written permission of their appropriate university officials at the home university and placement availability at the requested institution.
5. The student shall register at, and pay tuition and fees to, the State System University visited. A student wishing to divide a course load between two institutions during the same term shall register and pay appropriate tuition and fees at both universities.

The Office of the Chancellor will work with universities to establish and publish procedures to identify visiting students such that financial aid, residency, eligibility for honors, eligibility for athletics and credits to graduation are assured.

<http://www.lockhaven.edu/about/policies.html>

### **Waivers, Course**

Course waivers will be recorded on the academic record. Students do not earn credit for a course that has been waived; however, the waiver will complete the requirement on a degree audit. Students are responsible for completing the minimum hours required for a degree. Waivers do not appear on official transcripts.

### **Warning/Probation/Suspension/Dismissal-Academic-Undergraduate**

Students who are on academic warning, probation, or suspension will be monitored and supported up to six semesters at LHU prior to dismissal.

**Warning:** First semester freshmen, or first semester transfer students, whose GPA is below a 2.2 but above 0.000 will receive a warning letter and a copy of the Academic Probation, Suspension, and Dismissal Policy at the conclusion of their first semester. Any student on warning status will be required to work with the AIP Coordinator and/or the student's academic advisor, to develop an appropriate Academic Improvement Plan (AIP), analogous to a fully developed AIP required of students on probation, including but not limited to workshops, use of tutoring center, and progress reports as deemed necessary.

**Probation:** After the completion of two semesters at LHU, the student whose GPA falls below a 2.0 will be placed on Academic Probation. While on probation, a student must work with the AIP Coordinator, in consultation with the academic advisor, to develop an Academic Improvement Plan (AIP). The student will meet with the AIP Coordinator to review and sign the AIP; the AIP Coordinator will also sign and will send a copy to the student's academic advisor. The student will be responsible for completing the AIP. The AIP Coordinator will monitor the student's progress in adhering to the plan. The plan should include the following:

1. Credit limit: Full-time students on probation will be restricted to a maximum of 12 credits unless they are repeating a course. Students who are repeating a course will be limited to 15 credits.
2. Courses to be completed: Students should repeat courses with E grades. Repeating courses with E grades is the most effective way of raising a GPA. Students receiving financial aid should contact the Financial Aid Office about the impact of repeating courses on their financial aid packages. \*Please note the PASSHE Repeat Policy limiting the number of times this option may be exercised.
3. Weekly class attendance monitoring sheet.
4. Participation in use of tutoring center, structured semester program, mandatory study sessions, and other support services

A student on probation must earn a minimum of a 2.0 semester GPA or face suspension. Students on probation may not enroll in condensed courses of less than five weeks in length. Students on probation may enroll in summer classes that are five weeks or longer in length; however, academic standing for the purposes of probation will only be determined at the conclusion of the fall and spring semesters. If after two consecutive semesters on probation the student does not have a 2.0 Cumulative GPA, s/he will face suspension from the University.

**Suspension:** If after four semesters of coursework (including two semesters of probation) the student does not have a cumulative GPA of a 2.0 or higher, s/he will be suspended from the University for one full semester (either fall or spring). A student may appeal the suspension if extenuating circumstances are considered to be impacting the student's performance. In consideration of the appeal, the University will determine if it is mathematically possible for the student to earn a Cumulative GPA of 2.0 if two additional semesters of probation are granted. In cases where it is determined that a student will not be able to earn a 2.0 GPA if given two more semester of coursework, the student's appeal will be denied. Any student who is readmitted will be placed back on probation for two additional semesters. The student must achieve a semester GPA of 2.0 at the completion of the first additional probation semester and a cumulative GPA of 2.0 at the completion of the second additional probation semester. Students who do not meet these conditions will be dismissed.

Students granted two additional semesters of probation must meet with the AIP Coordinator and complete an AIP. (See Probation)

**Dismissal:** Unless extenuating circumstances exist that warrant a retroactive withdrawal (see University Withdrawal Policy), any first year student earning a 0.00 GPA at the conclusion of the first semester at LHU, will be dismissed from the University. A student who has been suspended and then readmitted must earn a 2.0 GPA during the first semester upon return or face dismissal from the University. Any student who has been dismissed from the University must sit out for two academic years. A dismissed student may request readmission after two years (readmission form). Students must complete productive activities, such as college coursework at another campus, during the time away from Lock Haven to strengthen their readmission application. Any readmitted student will be placed on academic probation and must meet with the AIP Coordinator and complete an AIP. (See Probation)

### **Withdrawal End Dates**

Students will be permitted to withdraw from a course and receive a grade of “W” up to the end of the tenth week of the semester. After the tenth week of the semester and through the last day of classes, students who withdraw will receive a grade consistent with university policy which will be determined by the instructor. Withdrawal periods will be prorated for summer and intersession terms.

For the fall and spring semesters, beginning with the sixth week and through the tenth week, students must meet with the instructor of the class from which they want to withdraw to discuss the action. (In the event the instructor is not available, the student may meet with the academic advisor or major department chairperson.) The individual with whom the student meets will withdraw the student from the course using online registration.

Because of the nature of the course offerings for the summer sessions and winter intersession, students may withdraw from the courses themselves through the dates on the published academic calendar. However, it is highly recommended and encouraged that students discuss this with the instructor (or advisor or major department chairperson if the instructor is unavailable) prior to taking this action.

### **Withdrawal Policy (Leave of Absence)-Undergraduate, from the University**

A student who is registered in courses for any semester or summer session is considered an enrolled student to receive grades and to be assessed tuition, fees, and any other applicable charges.

A student who is unable to attend classes or complete the semester for any reason must request a withdrawal from the university by contacting The Center of Excellence and Inclusion at [Excellence@lockhaven.edu](mailto:Excellence@lockhaven.edu), 570-484-2598.

#### **Effective Date**

The effective date of the withdrawal is the date which is verified by The Center of Excellence and Inclusion as the last date of class attendance.

The effective date of the withdrawal will determine the grade to be recorded on the academic record and the amount of tuition, fees, and other charges to be refunded, if applicable. Refunds will be processed according to the university’s refund schedule.

#### **Deadline**

The deadline to withdraw from the university without academic penalty is on the academic calendar, for an academic semester usually the 10<sup>th</sup> week of classes. Withdrawing after this published date will be with academic penalty, “E” grades.

University withdrawals will not be processed retroactively. Therefore, it is important for the student to contact the university upon deciding to discontinue enrollment.

A student who does not officially withdraw will receive failing grades and be responsible for all financial obligations.

#### **Medical Withdrawals**

In the event of a serious medical condition, a medical withdrawal may be requested. Documentation from a medical professional will be required after the 10<sup>th</sup> week of enrollment in order to avoid failing grades. If a medical withdrawal is granted, “W” grades will be awarded. A medical withdrawal does not imply forgiveness of charges. A student who incurs charges will be subject to the published refund schedule.

Medical withdrawals must be requested immediately but no later than thirty (30) days after the close of the semester in which the student seeks medical attention.

A student who receives a Medical Withdrawal will be required to submit a medical Reinstatement Certification from a medical professional in order to return the semester immediately following the withdrawal (return the summer or fall semester after withdrawing from the spring semester or return the winter intersession or spring semester after withdrawing from the fall semester) or the student must sit out a semester (fall or spring).

A student may not receive approval for more than two consecutive medical withdrawal semesters.

#### Student Called to **Active** Military Duty

A student who is called to **active** duty (confirmed by official military orders from the President of United States or the Governor of the Commonwealth of Pennsylvania, reference BOG Policy 1983-19-A) should contact The Center of Excellence and Inclusion at [Excellence@lockhaven.edu](mailto:Excellence@lockhaven.edu), 570-484-2598.

In some cases, a student may have completed a sufficient part of his courses to be able to receive grades or incompletes rather than withdrawing. The student must decide whether he/she will attempt to complete the courses or withdraw completely from the semester/session. If the student chooses a complete withdrawal, the entire semester will be removed from his/her record. This decision is binding.

Military withdrawals are to be requested immediately upon receipt of orders but no later than thirty (30) days after the close of the semester in which the student receives orders.

#### Withdrawal from Web-Based Courses

The last date of attendance for a web-based course will be provided by the Office of Information Technology. All activity in a web-based course will be considered (i.e. reviewing the syllabus, participating in discussions/chats, submitting assignments, completing a quiz or exam, etc.)

#### Refund Schedule

No withdrawal, including a medical withdrawal, implies forgiveness of financial obligations. A student who has incurred charges will be subject to the published refund schedule.

The university's refund schedule is available at <http://www.lockhaven.edu/studentaccounts/>.

#### Withdrawal Appeals

Any appeal related to a withdrawal must be submitted in writing to the Registrar within ten days of notification of action. Appeals will be reviewed by a committee consisting of the Registrar, Director of Financial Aid, and the Vice President for Enrollment Management and Student Affairs. If the committee is unable to reach a decision, the issue will be forwarded to the Provost.

#### Returning from a Withdrawal

Upon a complete semester withdrawal, all current semester courses will be withdrawn and future semester courses will be cancelled. The student will be required to complete a request to resume studies through the Registrar's office in order to return and schedule courses for the semester of the return.

## CLEARFIELD CAMPUS

<http://www.lockhaven.edu/clearfield/>

Continue your story here at LHU Clearfield. Our classes are the right size and taught by highly skilled faculty who are committed to the success of our students, as they strive for academic excellence. The staff is also dedicated to helping our students prepare for their futures. Here you will get the individual attention and support that you need to excel in your chosen field of study. As the most affordable University in the region we will provide a significant return on your investment.

The LHU Clearfield Campus is located in the small, friendly, and supportive community of Clearfield, along the Susquehanna River, about 60 miles west of Lock Haven University. The campus includes comfortable classrooms with state of the art technology, an extensive library, computer labs, bookstore, and on-campus housing . . . everything you need for a quality educational experience. Lock Haven Clearfield has a fiber-optic network with wireless access points throughout the campus allowing for easy internet access, emailing, computer programs and on-line card catalog usage at the Lock Haven Campus. The campus staff attempts to assist all students to help craft a schedule that best works for their needs. With several evening and online courses, Clearfield hopes to accommodate both traditional and non-traditional students.

There is plenty to do outside the classroom and our students are encouraged to get involved! The Student Leadership Center facilitates many student activities, including pizza parties, bowling, bus trips to various cities, theme parties, ice cream socials, movie nights, and events to engage the community. Additionally, all of our students receive a membership to the Clearfield YMCA. We encourage you to visit our website at <http://www.lockhaven.edu/clearfield/>.

The LHU Clearfield Campus offers the following degree programs (<http://www.lockhaven.edu/clearfield/>):

### **Associate of Science/Business Administration**

Concentration in Management:

Students are able to attend either full-time or part-time while taking both day and evening courses. The program is made up of traditional and non-traditional students. All coursework can be applied towards the Bachelor's degree in Management offered at Clearfield campus or at the main campus of Lock Haven University. Students completing the A.S. in Business will be better prepared for entrepreneurial endeavors, office promotions in their current careers, or additional management opportunities.

### **Associate of Applied Science/Healthcare Professions**

The Associate of Applied Science in Healthcare Professions program is a flexible design, which can prepare students with a healthcare background to have a better understanding of the healthcare system in America, to be better prepared to meet changes in the healthcare system in American society and to gain a fundamental understanding of the process of setting and accomplishing goals through the use of appropriate resources.

### **Associate of Arts/Criminal Justice**

This two-year program will prepare students for careers in law enforcement, corrections and government. The program emphasizes critical thinking, creative problem solving, ethical decision-making and support for an understanding of constitutional protections for the people of the United States. Students will receive a comprehensive understanding based upon courses in law enforcement, corrections, social problems, juvenile delinquency, and racial and ethnic studies.

### **Associate Science/Nursing (RN)**

Students are instructed in the theory and clinical aspects of patient care and are prepared to sit for their RN licensure exam following successful completion of the program. Several hospitals and agencies are utilized in order to provide a variety of clinical experiences for our students. Advanced placement is also available for eligible L.P.N.s. This demanding program prepares students and a highly rewarding career in healthcare and provides a seamless transition to our RN to BSN program. The program is accredited by ACEN (Accreditation Commission for Education in Nursing, Inc.).

### **Bachelor of Science/Degree Completion Program - RN to BSN (*Offered completely online*)**

The BSN program provides upper division opportunities facilitating mobility of graduates from Associate Degree and diploma programs, allowing them the opportunity to enhance their education and career options. The primary goal is to function in a variety of settings: providing care of the sick in and across environments; participating in, planning, implementing and evaluating activities and programs to promote health; and facilitating population-based health care. The program is designed to build on the student's knowledge and experience as a registered nurse, enhancing skills in critical thinking, case management, and leadership roles. The program is accredited by ACEN (Accreditation Commission for Education in Nursing, Inc.).

### **Bachelor of Science/Applied Health Studies Track in Health Science**

The Applied Health Studies Track is a degree completion program for individuals who are certified, licensed or registered in a healthcare profession. These individuals will have graduated from an accredited healthcare program (i.e. medical radiology, occupational therapy assistant, surgical technology, etc.) and have earned an associate's degree. After graduation, many of these students have a desire to continue their education and earn a bachelor's degree. The purpose of the Applied Health Studies Track is to prepare the student to grow as a professional and assume a position in healthcare leadership.

### **Bachelor of Science/Business Administration**

Concentration in Management:

Managers are needed in every organization to plan, organize, lead and control human and other resources to achieve organizational goals. All organizations need people with strong communications skills who can lead a team, think logically, and be decisive. By studying management students will not only develop competencies in areas such as accounting, computers, economics, business law, management and marketing, but will also develop effective interpersonal skills, be exposed to diverse business environments, advance decision making skills, and cultivate entrepreneurial thinking. Management skills can be applied to such areas and industries as supervisor/management; human resources; production; marketing; organizational behavior; international; small business; government; healthcare; hospitality; retail; banking; education, and many more.

Concentration in Entrepreneurship:

In this concentration, you will learn the skills necessary to launch your own full or part-time business. You can even launch all or part of it while in school and utilize the free services of LHU's Nano-Incubator. Courses include Entrepreneurship, Small Business Management, Human Resources Management, International Business, and Behavioral Pricing.

### **Bachelor of Science / Criminal Justice**

Students pursuing a degree in Criminal Justice at Lock Haven University will develop knowledge of issues in the field of criminal justice through a balanced presentation of student learning and program objectives to include; 1) knowledge of the nature and causes of crime and deviance; 2) knowledge of the history and practices of the major organizational systems in criminal justice; and 3) the ability to analyze and critique emerging research and current trends in criminal justice. Students complete a core set of required courses covering all components of the criminal justice system. Learning opportunities are enhanced in the curriculum with topic specific elective courses and a variety of experiential learning opportunities. The Conservation Law track is available at LHU Clearfield.

### **Continuing Education**

The LHU Clearfield Campus provides some non-credit certificate courses through the LHU Workforce Development Office in cooperation with organizations outside of LHU and the Continuing Education Division. Some of these programs prepare students for national certifications that can then apply to our degree programs. Please contact the Clearfield Campus (814-768-3405) for additional information.

## CALENDARS

### FALL 2019 ACADEMIC, FINANCIAL, and HOUSING CALENDAR

Subject to change

For tuition/fee refund schedule, visit <a href="http://www.lockhaven.edu/cost/refundschedule.html">http://www.lockhaven.edu/cost/refundschedule.html</a> . Financial refund dates do not necessarily coincide with course drop and withdrawal dates.		
Wednesday	August 21	New Student Move-In Day #1
Thursday	August 22	New Student Move-In Day #2
Friday & Saturday	August 23 & 24	New Student Orientations
Friday	August 23	Returning Student Move-In Day
Sunday	August 25	Founder's Day Convocation at 1:00 pm.
Monday	August 26	Classes begin at 8:00 AM
Monday	August 26	Fall 2019 student bill payments due
Wednesday	August 28	Last day to add first half semester course
		Last day to drop a first half semester course (does not appear on academic record)

Monday	September 2	Labor Day - No Classes
Tuesday	September 3	Last day to add full semester course
		Last day to drop a full semester course (does not appear on academic record)
Monday	September 9	Last day to submit satisfactory academic progress appeals for fall 2019 aid reinstatement
Wednesday	September 11	Last day for <i>students</i> to withdraw from <i>first half semester course</i> with a "W" grade using myHaven; after this date and through 9/27 a first half semester course withdrawal is done by the instructor or advisor.
Monday	September 16	Constitution Day Observance (Classes meet on regular schedule) (for more information : <a href="http://usgovinfo.about.com/blconstday.htm">http://usgovinfo.about.com/blconstday.htm</a> - Contact: Dr. Stanley Berard)
Tuesday	September 17	Last day to exercise pass/fail option
Friday	September 20	Deadline to change Incompletes from the Spring 2019 semester and 2019 summer sessions
Friday	September 27	Last day for <i>students</i> to withdraw from a <i>full semester course</i> with a "W" grade using myHaven; after this date and through 11/1, a full semester course withdrawal is done by the instructor or advisor.
		Last day for <i>instructors or advisors</i> to withdraw a student from a <i>first half semester course</i> with a "W" grade using myHaven

Friday	October 4	Last day to apply for December 2019 Graduation
Monday	October 14	Fall Holiday – No Classes
Tuesday	October 15	Classes resume at 8:00 AM; follow Monday's schedule
Tuesday	October 15	End of first half semester courses
Wednesday	October 16	Start of second half semester courses
Friday	October 18	Last day to add a second half semester course
		Last day to drop a second half semester course
Monday	October 21	Mid-term grades due from faculty
Wednesday	October 30	Last day that Title IV eligibility will be recalculated due to withdrawal from the term

Friday	November 1	Last day for <i>students</i> to withdraw from a <u>second half semester course</u> with a “W” grade using myHaven; after this date and through 11/19 a second half semester course withdrawal is done by the instructor or advisor.
		Last day for <i>instructors or advisors</i> to withdraw a student from a <u>full semester course</u> with a “W” grade using myHaven
Saturday	November 16	Optional inclement weather make-up day ( <i>instructors determine use</i> )
Tuesday	November 19	Last day for <i>instructors or advisors</i> to withdraw a student from a <u>second half semester course</u> with a “W” grade using myHaven
Tuesday	November 26	Residence Halls close at 6 PM
Wednesday-Friday	November 27-29	Thanksgiving Holiday – No Classes

Sunday	December 1	Residence Hall reopen at 12 PM
Monday	December 2	Classes resume at 8:00 AM
Monday-Friday	December 9-13	Special class schedule/ exam period
Friday	December 13	Last day of classes
Friday	December 13	Residence Halls close at 6 PM
Saturday	December 14	Commencement Ceremony-2:00 PM
Tuesday	December 17	All grades due by 3:00 PM; Semester closes

**Color Key:**

Academic (Registrar’s Office Dates): <a href="mailto:registrar@lockhaven.edu">registrar@lockhaven.edu</a> ; <a href="https://myhaven.lhup.edu/ICS/Registrar/">https://myhaven.lhup.edu/ICS/Registrar/</a> ; 570-484-2006; Ulmer Hall 224
Financial Aid Office Dates: <a href="mailto:finaid@lockhaven.edu">finaid@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/financialaid/">http://www.lockhaven.edu/financialaid/</a> ; 570-484-2424; Ulmer Hall 224
Student & Residence Life Office Dates: <a href="mailto:housing@lockhaven.edu">housing@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/housing/">http://www.lockhaven.edu/housing/</a> ; 570-484-2317; Ulmer Hall 219
Student Accounts Office Dates: <a href="mailto:stuaccts@lockhaven.edu">stuaccts@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/studentaccounts/">http://www.lockhaven.edu/studentaccounts/</a> ; 570-484-2425; Ulmer Hall 224

**FINAL EXAMINATION SCHEDULE - Fall Semester**

Be sure to check the final night examination schedule to see if your exams have been given an alternate time.

Final examinations, if given, will follow the schedule below. Students should keep this schedule in mind when selecting courses. In multi-section courses (3 or more sections) instructors may choose to arrange a final examination during evening hours of final exam week. Students with more than three finals in one day may request makeup with instructor(s). If no examination is given, final classes must follow the schedule below.

Classes that normally begin anytime during the hour of:	Exam is scheduled:	
8:00 MWF	8:00-9:50	Tuesday, December 10
9:00 MWF (i.e. 9:05 AM)	10:00-11:50	Friday, December 13
10:00 MWF (i.e. 10:10 AM)	8:00-9:50	Wednesday, December 11
11:00 MWF (i.e. 11:15 AM)	10:00-11:50	Tuesday, December 10
12:00 MWF (i.e. 12:20 PM)	2:00-3:50	Thursday, December 12
1:00 MWF (i.e. 1:25 PM)	8:00-9:50	Monday, December 9
2:00 MWF (i.e. 2:30 PM)	2:00-3:50	Tuesday, December 10
3:00 MWF (i.e. 3:35 PM)	2:00-3:50	Friday, December 13
4:00 MWF (i.e. 4:40 PM)	4:00-5:50	Tuesday, December 10
5:00 MWF (i.e. 5:05 PM)	4:00-5:50	Wednesday, December 11



6:00 MWF (i.e. 6:30 PM)	4:00-5:50	Monday, December 9
7:00 MWF	12:00-1:50	Monday, December 9
8:00 TR	8:00-9:50	Thursday, December 12
9:00 TR (i.e. 9:30 AM)	10:00-11:50	Thursday, December 12
10:00 TR	12:00-1:50	Tuesday, December 10
11:00 TR	8:00-9:50	Friday, December 13
12:00 TR (i.e. 12:30 PM)	2:00-3:50	Wednesday, December 11
1:00 TR	12:00-1:50	Thursday, December 12
2:00 TR (i.e. 2:10 PM)	10:00-11:50	Wednesday, December 11
3:00 TR (i.e. 3:40 PM)	12:00-1:50	Wednesday, December 11
4:00 TR	10:00-11:50	Monday, December 9
5:00 TR	4:00-5:50	Thursday, December 12
6:00 TR	2:00-3:50	Monday, December 9
7:00 TR	12:00-1:50	Friday, December 13
8:00 PM TR	4:00 – 5:50	Friday, December 13

### WINTER INTERSESSION 2019 CALENDAR

December 29, 2019 – January 15, 2020

*Subject to Change*

For tuition/fee refund schedule, visit <http://www.lockhaven.edu/cost/refundschedule.html>.  
Financial refund dates do not necessarily coincide with course drop and withdrawal dates.

<b>Friday</b>	November 1	Registration Begins
<b>Monday</b>	December 16 (Noon)	Course Enrollments Reviewed
<b>Thursday</b>	December 19	First Day of Classes
<b>Thursday</b>	December 19	Payment for Class Must be Submitted by This Date
<b>Friday</b>	December 20	Last Day to Add Last Day to Drop (does not appear on academic record)
<b>Wednesday through Wednesday</b>	December 25, 2019 -January 1, 2020	University Closed
<b>Saturday</b>	January 4 (See Note Below)	Last Day to Withdraw with "W"
<b>Wednesday</b>	January 15	Last Day of Classes
<b>Sunday</b>	January 19 (3:00PM)	Final Grades are Due

Note: Students may withdraw from classes through the Last Day to Withdraw with “W” date.  
Instructor or Advisor approval is not required.

### SPRING 2020 ACADEMIC, FINANCIAL, and HOUSING CALENDAR

Subject to change

DAY	DATE	ACTIVITY
Sunday	January 19	Move-In Day (Residence Halls)
Tuesday	January 21	Classes begin at 8:00 AM
Tuesday	January 21	Spring 2020 student bill payments due
Thursday	January 23	Last day to add first half semester course Last day to drop first half semester course (does not appear on academic record)
Tuesday	January 28	Last day to add full semester course Last day to drop a full semester course (does not appear on academic record)
Tuesday	February 4	Last day to submit satisfactory academic progress appeals for spring 2020 aid reinstatement
Thursday	February 6	Last day for <u>students</u> to withdraw from a <u>first half semester course</u> with “W” grade using myHaven; after this date and through February 21, a first-half-semester course withdrawal is done by the instructor or advisor
Monday	February 10	Last day to apply for May 2020 and August 2020 Graduation
Tuesday	February 11	Last day to exercise pass/fail option
Friday	February 14	Incompletes from the Fall 2019 semester and Winter Intersession 2019 should be completed
Friday	February 21	Last day for <u>students</u> to withdraw from a <u>full semester course</u> with a “W” grade using myHaven; after this date and through April 3, a full semester course withdrawal is done by the instructor or advisor Last day for <u>instructors or advisors</u> to withdraw a student from a <u>first half semester course</u> with a “W” grade using myHaven
Saturday	March 2	Optional inclement weather make-up day ( <i>instructors determine use</i> )
Friday	March 6	Residence Halls close at 6 PM
Mon-Friday	March 9-13	Spring Break
Sunday	March 15	Residence Halls reopen at noon
Monday	March 16	Classes resume at 8:00 AM End of first half semester courses
Tuesday	March 17	Start of second half semester courses
Friday	March 20	Last day to add a second half semester course Last day to drop a second half semester
Friday	March 20	Mid-term grades due from faculty at end of day
Monday	March 23	Last day that Title IV eligibility will be recalculated due to withdrawal from the term
Monday	March 23	2020-21 FAFSA Priority Filing Deadline – ensures consideration for all available sources of Federal Student Aid
Thursday	April 2	Last day for <u>students</u> to withdraw from a <u>second half semester course</u> with a “W” grade using myHaven; after this date and through April 20, a second-half semester course withdrawal is done by the instructor or advisor
Friday	April 3	Last day for <u>instructors or advisors</u> to withdraw a student from a <u>full semester course</u> with a “W” grade using myHaven

Saturday	April 11	Optional inclement weather make-up day ( <i>instructors determine use</i> )
Wednesday	April 15	Celebration of Scholarship Day (follow Friday's class schedule up to 5pm)
Monday	April 20	Follow Wednesday's class schedule up to 5pm Last day for <i>instructors or advisors</i> to withdraw a student from a <i>second half semester course</i> with a "W" grade

Monday	May 4	Regular class day (final exams begin on Tuesday)
Tues-Friday	May 5-8	Special class schedule/ exam period
Friday	May 8	Last day of classes
Friday	May 8	Residence Halls close at 6 PM
Friday	May 8	Commencement – Graduate Program Students (Master's Degrees) at 7pm
Saturday	May 9	Commencement – Undergraduate Program Students (Associate and Bachelor Degrees) at 10 am
Tuesday	May 12	All grades due by 3:00 PM; Semester closes

<b>Color Key:</b>
Academic (Registrar's Office Dates): <a href="mailto:registrar@lockhaven.edu">registrar@lockhaven.edu</a> ; <a href="https://myhaven.lhup.edu/ICS/Registrar/">https://myhaven.lhup.edu/ICS/Registrar/</a> ; 570-484-2006; Ulmer Hall 224
Financial Aid Office Dates: <a href="mailto:finaid@lockhaven.edu">finaid@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/financialaid/">http://www.lockhaven.edu/financialaid/</a> ; 570-484-2424; Ulmer Hall 224
Student & Residence Life Office Dates: <a href="mailto:housing@lockhaven.edu">housing@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/housing/">http://www.lockhaven.edu/housing/</a> ; 570-484-2317; Ulmer Hall 219
Student Accounts Office Dates: <a href="mailto:stuacct@lockhaven.edu">stuacct@lockhaven.edu</a> ; <a href="http://www.lockhaven.edu/studentaccounts/">http://www.lockhaven.edu/studentaccounts/</a> ; 570-484-2425; Ulmer Hall 224

### FINAL EXAMINATION SCHEDULE - Spring Semester

Be sure to check the final night examination schedule to see if your exams have been given an alternate time.

Final examinations, if given, will follow the schedule below. Students should keep this schedule in mind when selecting courses. In multi-section courses (3 or more sections) instructors may choose to arrange a final examination during evening hours of final exam week. Students with more than three finals in one day may request makeup with instructor(s). If no examination is given, final classes must follow the schedule below.

Classes that normally begin anytime during the hour of:	Exam is scheduled:	
8:00 MWF	8:00 - 9:50	Friday, May 8
9:00 MWF (i.e. 9:05 AM)	8:00 – 9:50	Wednesday, May 6
10:00 MWF (i.e. 10:10 AM)	10:00 – 11:50	Friday, May 8
11:00 MWF (i.e. 11:15 AM)	10:00 - 11:50	Wednesday, May 6
12:00 MWF (i.e. 12:20 PM)	12:00 – 1:50	Friday, May 8
1:00 MWF (i.e. 1:25 PM)	12:00 – 1:50	Wednesday, May 6
2:00 MWF (i.e. 2:30 PM)	2:00 - 3:50	Friday, May 8
3:00 MWF (i.e. 3:35 PM)	2:00 - 3:50	Wednesday, May 6
4:00 MWF (i.e. 4:40 PM)	4:00 - 5:50	Friday, May 8
5:00 MWF (i.e. 5:05 PM)	4:00 - 5:50	Wednesday, May 6
6:00 MWF (i.e. 6:30 PM)	4:00 - 5:50	Thursday, May 7
7:00 MWF	4:00 – 5:50	Tuesday, May 5

8:00 TR	8:00 - 9:50	Thursday, May 7
9:00 TR (i.e. 9:30 AM)	8:00 – 9:50	Tuesday, May 5
10:00 TR	8:00 – 9:50	Tuesday, May 5
11:00 TR	10:00 – 11:50	Thursday, May 7
12:00 TR (i.e. 12:30 PM)	10:00 – 11:50	Tuesday, May 5
1:00 TR	10:00 – 11:50	Tuesday, May 5
2:00 TR (i.e. 2:10 PM)	12:00 – 1:50	Thursday, May 7
3:00 TR (i.e. 3:40 PM)	12:00 - 1:50	Tuesday, May 5
4:00 TR	12:00 – 1:50	Tuesday, May 5
5:00 TR	2:00 – 3:50	Thursday, May 7
6:00 TR	2:00 - 3:50	Tuesday, May 5
7:00 TR	2:00 – 3:50	Tuesday, May 5
8:00 PM TR	2:00 – 3:50	Tuesday, May 5

**SUMMER 1 2020**

May 18, 2020 – June 19, 2020

**SUMMER 2 2020**

June 22, 2020– July 24, 2020

**SUMMER EXTENDED 2020**

May 18, 2020 – July 24, 2020

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Pennsylvania State System of Higher Education (PASSHE)

<http://www.passhe.edu/Pages/default.aspx>

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As of July 1, 2019

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Dr. Stephen Lee (beginning August 12)	
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Dr. Jonathan Lindzey	Dean, College of Natural, Behavioral, and Health Sciences
Dr. Kyoko Amano	Dean, College of Liberal Arts & Education

**FACULTY LISTING (2019-2020)**

As of July 1, 2019

Name	Department
Allison , Kathleen G	Health Science
Ardan , Brian M.	Library Faculty
Ardary , Darlene A	Clearfield Nursing
Ascherl Peckek , Ashley	Social Work and Counseling
Aslam , Muhammad	Mathematics
Baker , Alyce Rachelle	English & Philosophy
Ballat , Paul C	Health/Phys Educ
Bandura , Jennifer L	Biological Sciences
Barkley , Matthew J	Health Science
Barney , Danielle	Sport Studies
Barney , Sandra L	Hist/Pol Sci/Int Stud/For Lang
Batty , Kimberly A	Recreation Mgmt
Baylor , Timothy J	Sociology, Anthropology & Geography
Bean , James R	Psychology
Beardsley , Ann M	Clearfield Nursing
Bechtold , Heather A	Biological Sciences
Becker , Melissa J	Visual & Performing Arts
Bell , Jennifer K	Physician Assistant Studies
Berard , Stanley P	Hist/Pol Sci/Int Stud/For Lang
Berrios , Ruben	Business & Computer Science
Betton , Jill A	Clearfield Nursing
Bhushan , Latha K	Special Education
Boland , Susan M	Psychology
Borst , Jacquelyn R	Physician Assistant Studies
Bowman , Edward L	Criminal Justice
Bronner , Jason A	Visual & Performing Arts
Broomer , Ramona	Visual & Performing Arts

Bruner , Lynn A	Psychology
Buckle , Bruce C	Hist/Pol Sci/Int Stud/For Lang
Burkett , Richard J	Mathematics
Calabrese , Joseph P	Biological Sciences
Campbell , Peter A	Sport Studies
Canatella , Holle M	Hist/Pol Sci/Int Stud/For Lang
Carnicom , Scott A	Psychology
Chase , Susan M	Clearfield Nursing
Chelladurai , Jeyaprakash	Business & Computer Science
Cloud , Mark D	Psychology
Cook , Fay L	Health Science
Corman , Brenda M	Library Faculty
Coval , Stephen J	Chemistry
Crane , Donald E	Communication
Cullin , Michael J	Geology/Physics
Cummings , Tracey A	English & Philosophy
Curtin , David T	Visual & Performing Arts
De Silva , Kumudini N	Biological Sciences
Deitloff , Jennifer M	Biological Sciences
Dellantonio , Jennifer Valerie	Clearfield Nursing
DePalma , Michael G	Physician Assistant Studies
Dermota , Troy E	Chemistry
Devi , Gayatri S	English & Philosophy
Dickson , Loretta D	Geology/Physics
Dixon , Curt B	Health Science
Dombroski , Phileshia A	Recreation Mgmt
Dugan , Joyce E	Clearfield Nursing
Dumm , Jacqueline W	Chemistry
Eaton , Michelle M	Health/Phys Educ
Eisenhauer , Walter A	Physician Assistant Studies
Ely , Katherine J	Criminal Justice
Entz , Joanna M	Health Science
Epstein , Rachel E	Social Work and Counseling
Erb , Heather M	English & Philosophy
Erlandson , Jason B	Health Science
Ernst , Craig A	Physician Assistant Studies
Everhart , Brett W	Health/Phys Educ
Everhart , Kimberly A	Health/Phys Educ
Fiegel , Katherine A	Recreation Mgmt
Foor , Jamie L	Psychology
Foster , Brian J	Sport Studies
Foster , Thomas W	Social Work and Counseling
Gales , Daniel J	Health Science
Gardner , Laura M	Social Work and Counseling
Garey , Regan W.	Business & Computer Science
Gessner , Catherine R	Library Faculty
Gioglio , Thomas M	Health/Phys Educ (A)
Girton , Matthew K	Communication
Gitonga , Stephen K	Social Work and Counseling
Goonewardene , Anura U	Geology/Physics
Goulet , Richard J	Hist/Pol Sci/Int Stud/For Lang
Granich , Steven M	Social Work and Counseling
Grass , Mahlon O	Visual & Performing Arts
Gregory , Maryjoy A	Special Education

Grenoble , Curtis M	Physician Assistant Studies
Gruber , Elizabeth D	English & Philosophy
Guerrero , Joseph P	Social Work and Counseling
Hanna , Dolores	Clearfield Nursing
Harlowe , Elizabeth B	Hist/Pol Sci/Int Stud/For Lang
Heffner , Raymond L	Visual & Performing Arts
Henry , Heidi L.	Social Work and Counseling
Hepler , Darlene L	Clearfield Nursing
Herrera , Enrique A	Hist/Pol Sci/Int Stud/For Lang
Hicks , Stephen J	English & Philosophy
Hosley , Jessica B	PreK-Grade 8 and Professional Studies
Hosley , Nathaniel S	PreK-Grade 8 and Professional Studies
Howell , Carina Y. E.	Biological Sciences
Hoy , Frederick R	Geology/Physics
Huber , Philip L	Visual & Performing Arts
Huegler , Peter A	Business & Computer Science
Hunter , Shonah A	Biological Sciences
Ingram , Yvette M.	Health Science
Irons , Janet C	Hist/Pol Sci/Int Stud/For Lang
Jensen , Marlene	Business & Computer Science
Johnson , Kimberly A	Sociology, Anthropology & Geography
Jones , Laird R	Hist/Pol Sci/Int Stud/For Lang
Jones , Mark A	Business & Computer Science
Karagoz , Turgay	Criminal Justice
Kendris , Theodore	Hist/Pol Sci/Int Stud/For Lang
Kennedy , Erin A	Psychology
Khalequzzaman , Md	Geology/Physics
Kline , Karen E	Communication
Koehle , Gregory M	Criminal Justice
Kugler , Kathryn E	Physician Assistant Studies
Kulas , Stephanie B	Library Faculty
Kurzynski , Marcia J	Business & Computer Science
Kutay , Amy L Y	Biological Sciences
Lally , Patricia S	Sport Studies
Lally , Richard A.	Sport Studies
Lammel , Julie A	Recreation Mgmt
Lee , Laura K	Chemistry
Leidholdt , David E	Visual & Performing Arts
Lesniak , Ashley Y	Health Science
Lilla , Rick R	Library Faculty
Lippincott , Eric L	Health Science
Lloyd , William H Jr	Business & Computer Science
Lopez , Damarys	Hist/Pol Sci/Int Stud/For Lang
Lovik-Powers , Marianne R	PreK-Grade 8 and Professional Studies
Maddox Hafer , Marjorie L	English & Philosophy
Manlove , Elizabeth E	PreK-Grade 8 and Professional Studies
Maresch , Martin J	Chemistry
Marshall , Dwayne	Criminal Justice
Martorell , Gerard	Business & Computer Science
Mattern , James E	Sport Studies
May , Brent D	Chemistry
Maynard , Jacinth A	Mathematics
McCoy , Vance K	Visual & Performing Arts
McKee , Stephanie M	Clearfield Nursing

McSkimming , Michael J	Criminal Justice
Mekis , Ashley A	Clearfield Nursing
Meky , Mohamed M	Business & Computer Science
Mikula , Richard	Mathematics
Mills , Deborah L	Social Work and Counseling
Mitchell , Tara L	Psychology
Mohney , Kayla Diane	Special Education
Moore , Erica R	Special Education
Morgan , Charles H Jr	Mathematics
Morozov , Boris	Business & Computer Science
Morrin , Kevin A	Psychology
Mosco , Nicole P	English & Philosophy
Musila , Andrew D	Hist/Pol Sci/Int Stud/For Lang
Myers , Cori J	Business & Computer Science
Myers , Robert M	English & Philosophy
Nesbitt , James T	Sociology, Anthropology & Geography
Newburg , Cheryl L	Psychology
Nuttall , Ted R	Biological Sciences
Obenreder , Paul J	Business & Computer Science
O'Brien , Amber C	Physician Assistant Studies
Offutt , Christine A	Psychology
Overton , Barrie E	Biological Sciences
Owens , Kimberly A	Clearfield Nursing
Page , Jeanine L	Health Science
Park , Tulare W	Special Education
Patton , Cheryl M	Health Science
Penman , Jane L	Special Education
Petokas , Peter J	Biological Sciences
Pillai , Krishnakumar B	Business & Computer Science
Poehner , Priya M	PreK-Grade 8 and Professional Studies
Porter , Michael S	Health Science
Posey , Douglas M	Social Work and Counseling
Postlethwaite , Sara S	English & Philosophy
Powell Hodges , Emily M	Social Work and Counseling
Pribble , Barbara J	Health/Phys Educ
Prien , Helen E	Communication
Range , Kevin M	Chemistry
Reece , Constance G	Communication
Reid , John D	Geology/Physics
Reitz , Lynette M	Social Work and Counseling
Remley , Christine M	PreK-Grade 8 and Professional Studies
Rinker , Cathy J	Health Science
Romero-Lucero , Leandra R	Social Work and Counseling
Root , Kyle T	Chemistry
Ross , Annjane	Social Work and Counseling
Roun , Virginia E	Sport Studies
Ruane , Pamela L	Physician Assistant Studies
Rublein , Edmund K	Chemistry
Rudella , Jennifer L	Health Science
Russell , David W.	English & Philosophy
Russell , Jody R	Health Science
Sandow , Robert M	Hist/Pol Sci/Int Stud/For Lang
Satya , Laxman D	Hist/Pol Sci/Int Stud/For Lang
Sayers , Therese M	Clearfield Nursing



Schillig , Lisette T	English & Philosophy
Schulze , Frederick W	Health Science
Seiler , Meredith B	Biological Sciences
Seiler , Steven M	Biological Sciences
Senevirathne , Indrajith	Geology/Physics
Severn , Edwin P	Visual & Performing Arts
Silverstine , Samuel M	Health Science
Simin , Denine C	Mathematics
Six , Tamson L	Criminal Justice
Smith , Anna Mae	Physician Assistant Studies
Smith , Margaret P	Visual & Performing Arts
Smyth , Christopher W	Biological Sciences
Spooner , Daniel E	Biological Sciences
Story , Julie A	Social Work and Counseling
Stout , Jonathan	Special Education
Streator , Stephen S	Health Science
Stretch , LoriAnn S	Social Work and Counseling
Stringer , Sharon B	Communication
Sturrock , Melissa S	Clearfield Nursing
Swartz , Suzanne E	PreK-Grade 8 and Professional Studies
Szarka , Robert C	Business & Computer Science
Talbot , Andrew P	Psychology
Taylor , Jennifer H	Psychology
TePoel , Dain H	Sport Studies
Tess , Daniel E	Social Work and Counseling
Twumasi-Ankrah , Joseph Ampofo	Social Work and Counseling
Tyson , Denise L	PreK-Grade 8 and Professional Studies
Tzolov , Marian B	Geology/Physics
Valerio , Eduardo M	Hist/Pol Sci/Int Stud/For Lang
Van Dyke , Richard K	English & Philosophy
Vincenzes , Kristin A	Social Work and Counseling
Walker , Gregory W	Sociology, Anthropology & Geography
Washington , Dana J. S.	English & Philosophy
Way , Amy L	Health Science
Weaver , Lisa D	Social Work and Counseling
Wheeler , Ann B	Business & Computer Science
Widmann , Louis S	Health Science
Williams , Steven T	Mathematics
Wilt , Brian J	Recreation Mgmt
Winch , Elsa E	Library Faculty
Wynn , Thomas C	Geology/Physics
Yakut , Cengiz	Health/Phys Educ
Young , Susan M	PreK-Grade 8 and Professional Studies
Zahran , Mohamad M	Mathematics
Zelonis , Kimberly L	PreK-Grade 8 and Professional Studies

## EMPLOYEE LISTING

Please see the employee directory at <http://www.lockhaven.edu/directory/directory2.html>.

## FACULTY EMERITI

Dr. Wadduwage Abeysinghe	Mathematics	Ms. Maribeth Hanna Long	Academic Dev & Counseling
Dr. Cindy Allen	Health Sciences	Ms. Lois Lynn	Nursing
Dr. A. Wayne Allison	Recreation Management	Dr. Cecilia Maciá	Foreign Language-Spanish

Dr. Charles Arrington	Psychology	Mr. Lewis Magent	Special Education
Dr. Susan Ashley	PreK-Grade 8/Prof. Studies	Dr. Sue Malin	Music
Dr. Peter Auringer	Health & Physical Education	Dr. Stephen Marvel	Biology
Dr. Allienne Becker	Foreign Language- German	Dr. Peter Matthews	Special Education
Dr. Isadore Becker	English	Dr. John McGowan	Music
Miss Paula Bell	Computer Info. Science	Dr. H. Faith McNitt	Music
Dr. Bradley Black	Health & Physical Education	Dr. Kathleen McQuaid	History, Poli Sci, Econ & Geography
Dr. David Bower	Health Sciences	Mr. Ronald Miller	Performing Arts
Dr. John Brendel	Psychology	Dr. James Miller	Education
Dr. Judy Brink	Anthropology	Dr. Samuel Nantogmah	Health & Physical Education
Mr. Terry Brink	PreK-Grade 8/Prof. Studies	Dr. Rose Ann Neff	Recreation
Mr. Charles Bromberg	Speech & Communication	Dr. Charles Newcomer	Psychology
Dr. Stephen Bugaj	Special Education	Dr. Gregory Nolan	Educational Foundations
Dr. Jeff Burnham	Political Science	Dr. Donald Oakley	Science
Dr. Florentino Caimi	Music	Dr. Ellen O'Hara	PreK-Grade 8/Prof. Studies
Dr. Douglas Campbell	Communications	Ms. Mary O'Neill	Academic Dev & Counseling
Dr. Blair Carbaugh	Biological Science	Mr. Richard Parker	English
Dr. Carl Carnein	Chemistry/Physics/Geoscience	Dr. Arunkant Patel	Computer Science
Dr. Richard Carroll	Economics	Mrs. Carolyn Perry	English
Mrs. Shirley Chang	Library	Dr. Peter Podol	Foreign Language - Spanish
Mr. Tien Lu "Bob" Chu	Library	Dr. Carol Pollard	English
Dr. Gerald Cierpilowski	Elementary & Secondary Education	Mr. John Potter	Comp Sci, Mgmt Sci & Accounting
Dr. Robert Coltrane	English	Dr. Joseph Priddy	Education
Dr. Howard Congdon	Philosophy	Mr. Rudy Radocaj	Computing Center
Dr. Kenneth M. Cox	Health & Physical Education	Ms. Carol Rehn	Mathematics
Dr. Alan Crosby	Chemistry	Mr. Gary Renzelman	Music
Ms. Mary Sue Diehl	Nursing	Mrs. Mary Renzelman	Music
Mr. James Dolan	Health Science	Dr. Mary Rose-Colley	Health Sciences
Dr. Lisa Donahue	PreK-Grade 8/Prof. Studies	Ms. Mary Ann Rudella	Nursing
Mr. Bernard Dornisch	Math	Mr. Carl Rumbalski	Art
Dr. Charles Eberle	Health & Physical Education	Dr. Cathy Rush	Pre-K/Grade 8 Prof. Studies
Ms. Judith Elliott	Recreation Management	Dr. Steven Rush	Pre-K/Grade 8 Prof. Studies
Dr. Chick Empfield	Education	Mr. John "Jack" Schmidt, Jr.	Visual & Performing Arts
Mrs. Elaine Filsinger	Library	Dr. Paul Schwalbe	Biological Science
Mr. Jack Fisher	Health Science	Mr. Mark Seeber	Mathematics
Mr. Ted Forbes	Psychology	Dr. Wade Seibert	Social Work
Dr. Donald Fostvedt	Education	Dr. Kenneth Settlemyer	Biological Science
Ms. Nancy Berry Galgoci	Accounting	Dr. Robert Seyfarth	Bus Admin, Comp Sci & Info Tech
Dr. Mohinder Gill	Art	Dr. Blanche Shamma	Speech & Theatre
Mr. John Gordon	Performing Arts	Dr. Daniel Shaw	Philosophy
Dr. Arthur Gray	Chemistry	Mr. Leonard Shepard	Elementary Education
Dr. Donald Green	Geography	Mr. Terry Shultz	Health Science
Mr. Harold Hacker	Health & Physical Education & Rec	Dr. Donald Simanek	Physics
Dr. Ralph Harnishfeger	Biology	Dr. William Smith-Hinds	Sociology
Dr. Karen Harvey	History, Poli Science & Economics	Mr. Leroy Straley	Education
Dr. Charles Hayes	Foreign Language- German	Dr. James Strayer	Mathematics
Mr. Karl Herrmann	Health Sciences	Ms. Maria Sweet	Academic Dev & Counseling
Dr. Joan Whitman Hoff	Communications & Philosophy	Dr. Lucille Tabler	Social Work
Dr. Patrizia Hoffman	Communications	Dr. Kenneth Thompson	Biological Sciences
Dr. Arden W. Holland	Education	Mr. Tu Hsun Tsai	Sociology
Dr. Zakir Hossain	Sociology & Anthropology	Dr. Dora Vandine	Health & Phys Educ & Recreation
Dr. Glenn Hosterman	Music	Mr. Dean Wagner	Mathematics
Dr. John Irwin	Philosophy	Dr. Patrick Wardell	Social Work
Dr. Charles Jenkins	English	Dr. David Warner	Performing Arts
Dr. Edward Jensen	Master of Education	Mr. John Weigel	English
Mr. Donald Keener	Health & Physical Education & Rec	Mr. Robert Weller	Health & Phys Educ & Recreation
Mr. Charles Kent	History/ University Archivist	Dr. James Wheeler	Geology/Physics
Dr. Carole Kidder	Education	Ms. Nina Williams	Elementary & Secondary Education
Dr. Clay Kleckley	Academic Dev & Counseling	Dr. Douglas Wion	History, Poli Sci, Econ & Geography
Dr. James Knauer	Political Science	Dr. Nan Wood	Health & Physical Education
Dr. Richard G. Kohlan	Psychology	Mr. James A. Woodward	Mathematics
Mr. John Leffert	Physician Assistant	Mr. Bruce Wooley	Business & Computer Science
Mr. Ralph Lehman	Education	Dr. Judith Yoho	Education
Ms. Carol Liddick	Special Education	Dr. Tim Yoho	Biological Science
Dr. Sally Lima	Education	Dr. John Zaharis	Biological Sci & VP Academic Affairs
Mr. Leonard Long	Recreation Management	Mr. George Zakem	Computer Center

## GENERAL EDUCATION, BACHELOR OF ARTS, AND UNIVERSITY REQUIREMENTS

A list of courses meeting each area is available online at <http://www.lockhaven.edu/generaleducation/>.

### General Education – Bachelors Degree

INTELLECTUAL FOUNDATION	
• Written Communication	3.0 sh
• Oral Communication	3.0 sh
• Mathematical and Computational Thinking	3.0 sh
KNOWLEDGE AND INQUIRY	
• Natural Sciences Inquiry (at least one course with lab)	6.0 sh
• Historical, Behavioral, and Social Sciences Inquiry	6.0 sh
• Philosophical, Literary, and Aesthetic Inquiry ○ One course must come from Visual or Performing Arts and one from Philosophy or Literature	9.0 sh
PERSONAL AND SOCIAL RESPONSIBILITY	
• Global Awareness and Citizenship ○ One Course must fulfill historical foundation component of the competency	9.0 sh
• Wellness	3.0 sh
TOTAL CREDITS	42.0 sh
OVERLAYS	
• 2 Writing Emphasis courses (beyond ENGL100)	
• 2 Critical Thinking courses	
• 2 Experiential Learning Units (each unit equals 14 hours)	
<p><b>Note:</b> A single course may be used to satisfy only one GE course requirement in “Knowledge and Inquiry” and “Global Awareness and Citizenship” (e.g., The English Department could submit ENGL220 World Literature to count <i>either</i> for the “Knowledge and Inquiry” category <i>or</i> the “Global Awareness and Citizenship,” category but not both. A single course may, however, be used to satisfy a course and an overlay requirement (e.g., The Mathematics Department could submit MATH107: Basic Statistics for Intellectual Foundations and a Critical Thinking overlay).</p>	

### General Education – Associate of Arts Degree

INTELLECTUAL FOUNDATION	
• Written Communication	3.0 sh
• Oral Communication	3.0 sh
• Mathematical and Computational Thinking	3.0 sh
KNOWLEDGE AND INQUIRY	
• Natural Sciences Inquiry (with lab)	3.0 sh
• Historical, Behavioral, and Social Sciences Inquiry	6.0 sh
• Philosophical, Literary, and Aesthetic Inquiry	3.0 sh
PERSONAL AND SOCIAL RESPONSIBILITY	
• Global Awareness and Citizenship ○ One Course must fulfill historical foundation component of the competency	6.0 sh
• Wellness	3.0 sh
TOTAL CREDITS	30.0 sh
OVERLAY	
• 1 Critical Thinking course	

### General Education – Associate of Science Degree

INTELLECTUAL FOUNDATION	
• Written Communication	3.0 sh
• Oral Communication	3.0 sh
• Mathematical and Computational Thinking	3.0 sh
KNOWLEDGE AND INQUIRY	
• Natural Sciences Inquiry (with lab)	3.0 sh
• Historical, Behavioral, and Social Sciences Inquiry	3.0 sh
• Philosophical, Literary, and Aesthetic Inquiry	3.0 sh
PERSONAL AND SOCIAL RESPONSIBILITY	
• Global Awareness and Citizenship	3.0 sh
• Wellness	3.0 sh
TOTAL CREDITS	24.0 sh
OVERLAY	
• 2 Critical Thinking courses	

### General Education – Associate of Applied Science and Associate of Science in Nursing Degrees

INTELLECTUAL FOUNDATION	
• Written Communication	3.0 sh
• Oral Communication	3.0 sh
• Mathematical and Computational Thinking	3.0 sh
KNOWLEDGE AND INQUIRY	
• Natural Sciences Inquiry (with lab)	3.0 sh
• Historical, Behavioral, and Social Sciences Inquiry	3.0 sh
• Philosophical, Literary, and Aesthetic Inquiry	3.0 sh
PERSONAL AND SOCIAL RESPONSIBILITY	
• Global Awareness and Citizenship	3.0 sh
TOTAL CREDITS	21.0 sh
OVERLAY	
• 1 Critical Thinking course	

### Bachelor of Arts Degree Requirements

In addition to the 42.0 semester hours of general education coursework, Bachelor of Arts degree candidates must meet the following requirements.

SEMINARS	9.0 sh
• Two of the three seminars must be in two different areas	
FOREIGN LANGUAGE	3.0 sh to 12.0 sh
• Proficiency at level four of a foreign language ( <i>a student who has experience in a language may not need to complete all four levels</i> )	

## GENERAL EDUCATION APPROVED COURSE LIST, INCLUDING COMPETENCIES

(Updated 05/15/2019)

NOTE: If a course has been approved to meet more than one general education course requirement, the course may be used to satisfy only one requirement.

If a course has been approved to meet both a general education course requirement and a competency, the course may be used to satisfy both.

Course	Title	GENERAL EDUCATION AREAS							COMPETENCIES		
		Written Communication (3.0 sh required)	Oral Communication (3.0 sh required)	Mathematical and Computational Thinking (3.0 sh required)	Natural Sciences Inquiry (6.0 sh total/at least 3.0 sh must be lab)	Historical, Behavioral, and Social Sciences Inquiry (6.0 sh required)	Philosophical, Literary, and Aesthetic Inquiry (9.0 sh total/must meet both areas)	Global Awareness and Citizenship (9.0 sh total/at least 3.0 sh must be historical)	Wellness (3.0 sh required)	Written Communication (2 courses required)	Critical Thinking (2 courses required)
	Independent Study										2 units
	Internship										2 units
	Foreign Language Courses							Non-Histor			
	Study Abroad (semester long exp - satisfies 6.0 sh)							Non-Histor			
ANTH101	Introduction to Anthropology					X		Non-Histor			
ANTH102	Cultural Anthropology					X		Non-Histor			
ANTH223	Cultures North American Indians					X					
ANTH328	Social Sci Seminar: Anthropology of Women ( <i>only this ANTH328 seminar title has been approved for GAC-NH</i> )							Non-Histor			
ART100	Understanding Art							Vis & Perf Art Non-Histor			
ART103	Introduction to Art							Vis & Perf Art			
ART105	Introduction Three-Dimensional Art							Vis & Perf Art			
ART112	Drawing 1							Vis & Perf Art			
ART217	Introduction to Digital Art							Vis & Perf Art			
ATTR230	Evidence-Based Medicine								X		
ATTR453	Clinical Experience 1									X	2 units
ATTR456	Clinical Experience 4									X	2 units
BIOL101	Basic Biology				Lab						
BIOL102	Environmental Science				Lab						
BIOL103	Inquiry into Biology				Lab						
BIOL106	Principles of Biology 1				Lab						

BIOL107	Principles of Biology 2				Lab					X		
BIOL108	Field Natural History				Lab							
BIOL125	Topics in Biology				Non-Lab							
CHEM101	Chemistry in the Environment				Lab							
CHEM103	Chemistry of Art				Lab							
CHEM105	Forensic Chemistry				Lab							
CHEM110	Basic Chemistry				Non-Lab							
CHEM120	Principles of Chemistry 1				Lab							
CHEM121	Principles of Chemistry 2				Lab							
CHEM301	Inorganic Chemistry									X		
CHEM317	Instrumental Analysis (effective SP19, no longer WC competency)										X	
CHEM321	Quantum Chemistry and Spectroscopy										X	
CHEM328	Science Seminar							Non-Histor				
CHEM410	Biochemistry									X		
CHEM415	Biochemistry 2										X	
COMM100	Introduction to Communication		X									
COMM102	Fundamentals of Public Speaking		X								X	
COMM103	Small Group Communication		X									
COMM104	Interpersonal Communication		X									
COMM201	Communication Practicum 1											1 unit
COMM202	Communication Practicum 2											1 unit
COMM203	Communication Practicum 3											2 units
COMM210	Gender and the Mass Media										X	
COMM220	Oral Interpretation ( <i>restricted to SCED/ENG majors</i> )		X									
COMM290	Multimedia Journalism									X		1 unit
COMM295	Radio Journalism									X		
COMM300	Organizational Communication									X		1 unit
COMM303	Argumentation and Debate										X	
COMM315	Corporate Video Production											2 units
COMM330	Cultural Studies in Mass Communication									X	X	
COMM360	Communication Analysis									X	X	
COMM400	Communication Capstone Seminar											1 unit
COMM493	Online Journalism									X		
COMM494	Communication Law and Ethics										X	
COMM495	Public Relations Writing									X		
COMP160	Programming 1			X							X	
COMP220	Contemporary Issues in Computing									X	X	
COMP304	Data and Computer Communications									X		
COMP335	Advanced Networking									X		
COMP340	Data Mining									X		
COMP405	Software Engineering									X		
CRJS217	Women and Crime									X		
CRJS301	Juvenile Justice										X	
CRJS490	Criminal Justice Research										X	
ECED150	Diversity in Early Childhood Education							Non-Histor		X		
ECED415	Integrating Curriculum and Instruction		X									
ECED493	Student Teaching & Practicum 1-PreK-4/EC										X	2 units
ECED494	Student Teaching & Practicum 2-PreK-4/EC										X	2 units
ECON101	Principles of Economics						X					



GEOS135	Geology of National Parks				Non-Lab								
GEOS140	Sustainability Science				Non-Lab			Non-Histor					
HIST101	World History 1					X		Histor					
HIST102	World History 2					X		Histor					
HIST201	History of the United States 1					X							
HIST202	History of the United States 2					X							
HIST301	Medieval Europe									X	X		
HIST305	Renaissance and Reformation									X	X		
HIST316	Early Christianity									X	X		
HIST328	Seminar: Social Science									X	X		
HIST337	Cold War American: US History 1945-1989									X	X		
HIST347	The Ancient Mediterranean									X	X		
HLTH105	Introduction to Health								X				
HLTH122	Essentials of Human Anatomy and Physiology <i>(restricted to HPED majors)</i>				Lab								
HLTH225	Comparative Healthcare							Non-Histor					
HLTH235	Community Health Education Methods & Strategies	X											
HLTH401	Current Issues in Health										X		
HLTH410	Applied Community and Public Health										X		
HLTH414	Current Issues in Exercise Science									X	X		
HLTH440	Research in Health Sciences									X	X		
HLTH485	Professional Field Experience in Health Sciences									X			2 units
HONR101	Ethics: Historical and Global Perspectives						Lit & Phil	Non-Histor			X		
HONR102	Global Honors: World History 2					X		Histor					
HONR107	Global Politics					X		Non-Histor					
HONR110	Honors: Concepts in Biological Science				Lab								
HONR111	Composition: Global Honors	X											
HONR112	Global Honors: Introduction to Literature						Lit & Phil	Non-Histor		X			
HONR115	Honors: Earth Resources and Environment				Lab								
HONR180	Honors: Introduction to Psychological Science					X							
HONR200	Global Honors: Nutrition for Wellness								X				
HONR303	Honors: Argumentation and Debate	X									X		
HONR328	Liberal Arts Seminar							Non-Histor					
HPED115	Teaching Invasion Sports 1	X											
HPED140	Wellness for Life								X				
HPED145	Globalization and Cultural Differences in Sports							Non-Histor					
HPED245	Health/Physical Education in Elem School								X				
HPED252	Physical Activity, Movement & Sport for Indiv w/ Disabil							Non-Histor			X		
HPED255	Teaching Fitness in K-12 Schools								X				
HPED493	Health & Physical Educ Student Teaching and Prof Practicum: Elementary									X	X		2 units



HPED494	Health & Physical Educ Student Teaching and Prof Practicum: Secondary									X	X	2 units
MANG307	Budgeting Theory and Practice											2 units
MANG400	Business, Society and Government									No longer meets this, effective FA16		
MANG475	Capstone Seminar in Strategic Management									X	X	
MATH101	Topics in Math			X								
MATH102	Number Systems			X								
MATH107	Basic Statistics 1			X								
MATH112	Intermediate Algebra			X								
MATH113	Precalculus			X								
MATH115	Statistics and Geometry			X								
MATH141	Calculus 1			X								
MATH180	Mathematics for Management			X								
MATH205	Foundations of Mathematics										X	
MATH225	History of Mathematics									X	X	
MATH493	Student Teaching and Professional Practicum 1									X		2 units
MATH494	Student Teaching and Professional Practicum 2									X		2 units
MUSI100	World Music							Vis & Perf Art	Non-Histor			
MUSI101	Introduction to Music							Vis & Perf Art				
MUSI103	Basic Musicianship							Vis & Perf Art				
MUSI105	Explor Contemp Trends Jazz/Rock/Musical Theatre							Vis & Perf Art				
MUSI111	University Choir											2 units
MUSI112	University Band											2 units
MUSI113	Percussion Ensemble											2 units
MUSI114	Jazz/Rock Ensemble											2 units
MUSI115	Ensemble Small Choral											2 units
MUSI116	Ensemble Small Instrument											2 units
MUSI125	Introduction to Musical Theater							Vis & Perf Art				2 units
NURS201	Nursing III										X	2 units
NURS202	Nursing IV										X	2 units
NURS310	Foundations for Professional Practice									X		
NURS490	Nursing Research									X	X	

PHIL101	Problems in Philosophy						Lit & Phil				X	
PHIL102	Ethics						Lit & Phil				X	
PHIL105	Philosophy of Religion						Lit & Phil	Non-Histor			X	
PHIL106	Social and Political Philosophy						Lit & Phil				X	
PHIL220	Existentialism						Lit & Phil				X	
PHIL400	Ethics and the Environment							Non-Histor			X	
PHIL415	Ethical Issues in the Health Care Professions							Non-Histor			X	
PHIL425	Ethics in Business and Industry							Non-Histor			X	
PHYS101	Matter and Energy				Lab							
PHYS108	Galileo: The Father of Experimental Science				Non-Lab			does not meet GAC-NH				2 units
PHYS110	How Things Work				Non-Lab							
PHYS125	Physics of Sports				Non-Lab							
PHYS130	Physics 1				Lab							
PHYS131	Physics 2				Lab							
PHYS135	Meteorology				Lab							
PHYS140	Astronomy of the Solar System				Lab							
PHYS145	Stars, Galaxies, and Cosmology				Non-Lab							
PHYS171	Intermediate General Physics 2				Lab					X		
PHYS315	Modern Physics				Lab					X		
PHYS431	Advanced Physics Laboratory										X	
POLI105	American National Government					X						
POLI107	World Politics					X		Non-Histor				
POLI210	State and Local Government					X						
POLI230	Political Parties and Elections									X	X	
POLI325	Labor-Management Relations										X	
POLI330	Public Policy										X	
POLI335	Politics of Global Health							Non-Histor			X	
PSYC100	Intro to Psychological Science					X						
PSYC102	Child Development					X						
PSYC103	Adolescent Development					X						
PSYC111	Psychology of Early Childhood					X						
PSYC202	Research Methods in Psychology										X	
PSYC204	Writing for Psychology									X		
PSYC235	Interpersonal and Leadership Skills									X		2 units
PSYC409	Applying Research Methods in Psychology									X	X	
RECR105	Leisure, Wellness, and Personal Lifestyle								X			
RECR205	Nutrition for Wellness								X			
RECR210	Field Participation in Recreation											2 units
RECR215	Travel and Tourism									X		



SPRT465	Organization and Admin of Sport and Athl Prog									X		
THEA110	Theatre: An Orientation						Vis & Perf Art					
WMST101	Introduction to Women's Studies							Non-Histor			X	
WMST110	Introduction to LGBTQ Studies							Non-Histor				

## University Requirement

### FIRST YEAR STUDENT SEMINAR

Each discipline will offer either a discipline oriented First Year Student Seminar course (typically XXXX119) with the following objectives or have the objectives included in an existing required course within the department.

#### Objectives of the First Year Student Seminar

- a. Identify student support resources and services on campus
- b. Define short and long-term academic and professional goals as they relate to an academic discipline
- c. Identify learning strategies and demonstrate effective study skills and time management
- d. Demonstrate active engagement with faculty and service or civic opportunities within the context of the university community

The First Year Seminar Course shall be a requirement of all new students. Department Chairs shall be given the option to waive this requirement for specific students including transfer students, students returning to the university, etc. In the event that the course is waived, the 1 sh associated with this course shall be placed into the student's Elective Category for the major.

## REQUIREMENTS FOR MAJORS

<http://www.lockhaven.edu/academics/programs.html>

Start on next page

## Accounting – Bachelor of Science

Effective Fall 2016

GENERAL EDUCATION REQUIREMENTS (42 sh)		MAJOR CORE -- REQUIRED FOR ALL		(36)
<b>INTELLECTUAL FOUNDATION</b>		<b>9 sh</b>	<i>Note: A minimum GPA of 2.0 is required in the major</i>	
<b>Written Communication</b>	3 sh	<b>Recommended before Junior Year</b>	<b>24 sh</b>	
ENGL100: Composition		MANG105: Introduction to Business	3 sh	
WC Competency 1: ENGL345		<i>Upper-level transfer students may substitute a major elective</i>		
WC Competency 2: MANG475		<i>Meets FYS requirement</i>		
<b>Oral Communication</b>	3 sh	ACCT110: Financial Accounting	3 sh	
<b>Mathematical and Computational Thinking</b>	3 sh	ACCT115: Management Accounting #	3 sh	
MATH107: Basic Statistics I		<i>Prerequisite: ACCT110</i>		
<b>Critical Thinking</b>		COMP150: Introduction to Computers	3 sh	
CT Competency 1: PHIL425		ECON103: Principles of Microeconomics	3 sh	
CT Competency 2: MANG475		MRKT200: Introduction to Marketing	3 sh	
<b>KNOWLEDGE &amp; INQUIRY</b>	<b>21 sh</b>	COMP250: Advanced Microcomputer Apps #	3 sh	
<b>Natural Science Inquiry (at least 1 lab science)</b>	6 sh	<i>Prerequisite: COMP150, &amp; grade "C" or better in MATH107</i>		
		MATH180: Math for Management# OR MATH141: Calculus 1	3 sh	
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh	<i>Prerequisites: MATH107. Also MATH 112 or placement score of 9+ in Categories 1-3</i>		
ECON102: Principles of Macroeconomics				
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh			
(at least 1 Visual or Performing Arts)		<b>Recommended for Juniors &amp; Seniors</b>	<b>9 sh</b>	
PHIL102: Ethics (or PHIL425 as GAC)		MANG315: Management: Concepts & Strategies #	3 sh	
		<i>Prerequisite: 45 semester hours when course begins</i>		
		MANG325: Financial Management #	3 sh	
<b>PERSONAL &amp; SOCIAL RESPONSIBILITY</b>	<b>12 sh</b>	<i>Prerequisite: ECON102, ECON103, &amp; ACCT110</i>		
<b>Global Awareness &amp; Citizenship (at least 1 GAC-H)</b>	9 sh	MANG302: Business Law I #	3 sh	
ENGL345: Business Writing #				
HIST101/HIST102: World History I or II		<b>For Seniors Only</b>	<b>3 sh</b>	
<b>Wellness</b>	3 sh	MANG475: Capstone/Strategic Mgmt #	3 sh	
		<i>Prerequisites: MANG325</i>		
<b>Experiential Learning</b>		<i>Must have 75 sh to register and 90 when course begins.</i>		
EL Competency 1 (1 unit)				
EL Competency 2 (1 unit)		<b>ACCOUNTING REQUIREMENTS</b>	<b>(18 sh)</b>	
OR Internship (1 credit = 2 units)		ACCT210: Intro. To Federal Income Tax #	3 sh	
<b>ELECTIVES (Internships strongly advised!)</b>	<b>(18 sh)</b>	ACCT215: Acct. Info. Systems #	3 sh	
<i>Electives can be used for internships, study abroad, or other student interests.</i>		ACCT300: Cost Accounting #	3 sh	
		ACCT335: Intermediate Accounting I #	3 sh	
		ACCT340: Intermediate Accounting II #	3 sh	
<b>WARNING: MATH COURSES MAY BE REQUIRED</b>		ACCT420: Auditing #	3 sh	
<u>IF math placement score is BELOW 9 in:</u>				
Cat. 1, MATH 009 is required as a 0 credit course		<b>ACCOUNTING ELECTIVES</b>	<b>(6 sh)</b>	
Cat. 2, MATH100 is required as a gen ed elective		#		
Cat. 3, MATH112 is required as a gen ed elective		#		
		Accounting electives include 300-level or higher ACCT courses, COMP160, COMP255, COMP260, COMP305, ECON340, MANG220, MANG326, MANG303, MANG305, MANG430. Internships (ACCT369) can count for up to 3 credits in the major.		
		# Designates advanced coursework		



<b>Mobile and Game Application Development Track (30 credits)#</b>		<i>Hrs</i>	<i>When</i>	<i>Taken</i>	<i>Grade</i>
COMP161	Programming II # ( <i>Prerequisite: COMP160</i> )	3	F	_____	_____
COMP225	Mobile Device Programming # ( <i>Prerequisite: COMP161</i> )	3	F	_____	_____
COMP240	Game Programming # ( <i>Prerequisite: COMP161</i> )	3	S	_____	_____
COMP300	Data Structures and Algorithms # ( <i>Prerequisite: COMP161</i> )	3	S	_____	_____
COMP302	C/C++ for Systems Programming # ( <i>Prerequisite: COMP161</i> )	3	F	_____	_____
COMP405	Software Engineering# ( <i>WC, Prerequisite: COMP300</i> )	3	F	_____	_____
COMP430	Computer Graphics # ( <i>Prerequisite: COMP300</i> )	3	F	_____	_____
MATH141	Calculus I # ( <i>Prerequisite: Appropriate Math Placement/MATH113</i> )	3	F&S	_____	_____
_____	Major Elective	3		_____	_____
_____	Major Elective	3		_____	_____

<b>Data Science Track (30 credits)#</b>		<i>Hrs</i>	<i>When</i>	<i>Taken</i>	<i>Grade</i>
COMP235	Intro to Data Science	3	F	_____	_____
COMP305	Database Application Development # ( <i>Prerequisite: COMP255</i> )	3	S	_____	_____
MANG342	Fund of Mang Science	3	S	_____	_____
COMP325	Advanced SQL # ( <i>Prerequisite: COMP255</i> )	3	F	_____	_____
COMP340	Data Mining ( <i>Prerequisite: COMP235 and COMP255</i> )	3	S	_____	_____
COMP345	Advanced Programming for Data Analysis ( <i>Prerequisite: COMP255, COMP160 or COMP245 -Intro Prog for DS, and Math 180/141</i> )	3	F	_____	_____
COMP425	Advanced DB Architectures ( <i>Prerequisite: COMP255</i> )	3	F	_____	_____
MATH180	Math for Management # ( <i>Prerequisite: MATH107 and Appropriate Math Placement/MATH112</i> )	3	F&S	_____	_____
_____	Major Elective	3		_____	_____
_____	Major Elective	3		_____	_____

<b>Networking and Cybersecurity Track (30 credits)#</b>		<i>Hrs</i>	<i>When</i>	<i>Taken</i>	<i>Grade</i>
COMP212	Data and Computer Communications # ( <i>Prerequisite: MATH112</i> )	3	S	_____	_____
COMP308	Wireless Networking ( <i>Prerequisite: COMP200 and COMP212</i> )	3	S	_____	_____
COMP335	Advanced Networks ( <i>Prerequisite: COMP200 and COMP212</i> )	3	F	_____	_____
COMP312	Intro to Cybersecurity ( <i>WC, Prerequisite: COMP200</i> )	3	S	_____	_____
COMP435	Next Generation Networks and Services ( <i>Prerequisite: COMP200, COMP212</i> )	3	F	_____	_____
COMP407	Network Systems and Security Administration # ( <i>Prerequisite: COMP335, COMP312, COMP308</i> )	3	S	_____	_____
COMP412	Advanced Network Security # ( <i>Prerequisite: COMP335, COMP312, COMP308</i> )	3	F	_____	_____
MATH113	PreCalculus ( <i>Prerequisite: Appropriate Math Placement/MATH112</i> ) or substitute major elective based on math placement score	3	F&S	_____	_____
_____	Major Elective	3		_____	_____
_____	Major Elective	3		_____	_____

**Interdisciplinary Computing Track (30 credits)#**

Note: The Interdisciplinary Computing track requires the student, with guidance from the advisor, to develop a detailed study plan prior to declaring this track. This plan must be approved by the Departmental Interdisciplinary Committee and two consulting faculty members from a second discipline prior to the final three semesters of study. It is suggested that courses in the track consist of at least 4 COMP classes and an additional MATH or COMP class. Please refer to the Interdisciplinary Track approval form for course tracking.

**Major Elective Requirements**

Major electives include courses in other tracks as well as COMP369 (Internship), COMP499 (Independent Study), and any 200, 300 or 400-level COMP course not in the core such as those listed above and COMP402 Algorithm Design and Analysis, COMP415 Structures of Programming Languages, COMP480 Special Topics, etc .

The following courses can also count towards the major elective requirement: ART217, ART308, MANG101, MRKT305, BIOL106, BIOL107, CHEM120, CHEM121, PHYS170, PHYS171, PHYS290, MATH142, MATH205, MATH211, MATH243, MATH244 or any 300 or 400 level MATH course aside from 316, 359, 415, 416, 493, 494.

Classes that satisfy a general education requirement cannot be used as a major elective.

**Art - Bachelor of Art**

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (1 lab required)</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART103: Introduction to Art (3 sh)	
Choose Two Additional Courses from PLA	
One must be from Philosophy or Literature	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
One must be a Historical Foundations course	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	
<b>Total Gen Ed Requirements</b>	<b>42 sh</b>

<b>Seminars (two of three required from the following)</b>	<b>6 sh</b>
Humanities (328), Social Sciences (328) Science /Math (328)	
<b>Foreign Language Requirement</b>	<b>12 sh</b>

<b>Electives</b>	<b>18 sh</b>
<b>Total University Requirements</b>	<b>78 sh</b>

	<b>Major Area and Cognate Courses</b>	<b>42 sh</b>
	VAPA119: First Year Student Seminar	1 sh

	<b>Core Requirements</b>	<b>18 sh</b>
	ART105: Introduction to 3-D Design	3 sh
	ART110: Color and 2-Dimensional Design	3 sh
	ART112: Drawing 1	3 sh
	#ART210: Materials & Techniques	3 sh
	#ART217: Electronic (Digital) Art	3 sh
	#ART312: Drawing 2	3 sh
	<b>#Art History</b>	<b>6 sh</b>
	Select Two Courses from the following:	
	ART301: Renaissance & Baroque Art	
	ART304: Ancient and Medieval Art	
	ART307: Asian Art	
	ART401: Modern Art	
	ART420: Art Since 1950	
	ART430: American Art	
	<b>Studio Art</b>	<b>12 sh</b>
	Select from the following:	
	#ART325: Printmaking	
	#ART330: Painting	
	#ART335: Sculpture	
	#ART318: Digital Photography OR ART350: Photography as Art	
	#ART355: Life Studies	
	Note: At least 1 of the above courses must be taken as an ART425: Special Problems Studio	
	#ART499: Independent Study#	
	<b>Art Electives</b>	<b>5 sh</b>
	<b>Junior Portfolio</b>	
	Students must pass a portfolio review	
	<b>Senior Exhibition (final semester)</b>	
	<b>Total Required Courses</b>	<b>120 sh</b>



**Biology - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
(at least one from Philosophy or Literature)	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(28 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM220: Organic Chemistry I#	4
CHEM221: Organic Chemistry II#	4
CHEM410: Biochemistry I#	4
PHYS130: Physics I#	4
PHYS131: Physics II#	4
<b>Core Biology Requirements</b>	<b>(12 sh)</b>
BIOL202: Genetics#	3
BIOL206: Botany#	3
BIOL240: Zoology#	3
BIOL410: Organismal Physiology#	3
<b>Biology Electives</b>	<b>(24 sh)</b>
Take 24 credits of 200-400 level# BIOL courses*	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**BIOLOGY: GENERAL BIOLOGY**  
**Suggested Course Sequence**

SEMESTER	SH	SEMESTER	SH
<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	General Education	3
General Education- MATH xxx (depends on Math Placement test)	3	General Education	3
General Education	3	General Education	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
BIOL206 Botany I	3	BIOL202 Genetics	3
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
PHYS130 Physics I (MATH 113 Prerequisite)	4	PHYS131 Physics II	4
General Education	3	General Education	3
	-	General Education	3
	<b>14</b>		<b>17</b>
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOLxxx Biology course	3	BIOL240 Zoology	3
BIOLxxx Biology course	3	BIOLxxx Biology course	3
General Education	3	BIOLxxx Biology course	3
General Education	3	General Education	3
Elective	3	Elective	3
	-		-
	<b>15</b>		<b>15</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOLxxx Biology course	3	BIOL410 Organismal Physiology	3
BIOLxxx Biology course	3	BIOLxxx Biology courses	3
General Education	3	BIOLxxx Biology course	3
Elective	3	Elective	3
Elective	3	Elective	2
	-		-
	<b>15</b>		<b>14</b>

**Biology: Biomedical Sciences – Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1 (BIOL107)	
WC Competency 2 (CHEM410)	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
SOCI101: recommended	3
PSYC100: recommended	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
PHIL102: recommended	3
ENGL110: recommended	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
PHIL415: recommended	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(36 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM220: Organic Chemistry I#	4
CHEM221: Organic Chemistry II#	4
CHEM410: Biochemistry I#	4
PHYS130: Physics I#	4
PHYS131: Physics II#	4
HLTH115: Human Anatomy & Physiology I	4
HLTH120: Human Anatomy & Physiology II	4
<b>Biology Requirements</b>	<b>(24 sh)</b>
<b>Required Courses</b>	<b>[17 sh]</b>
BIOL202: Genetics#	3
BIOL310: Immunology#	3
BIOL330: Cell & Molecular Biology#	4
BIOL410: Organismal Physiology#	3
BIOL340: Microbiology#	4
<b>Biology Electives</b>	<b>[7 sh]</b>
Take 7 credits of 200-400 level# BIOL courses*	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**BIOLOGY: BIOMEDICAL SCIENCES**  
**Suggested Course Sequence**

<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	General Education	3
General Education- MATHxxx (depends on Math Placement test)	3	General Education	3
General Education	3	General Education	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
CHEM220 Organic Chemistry I	3	BIOL310 Immunology	3
HLTH115 Human Anatomy & Physiology I	4	CHEM221 Organic Chemistry II	4
BIOL202 Genetics	3	HLTH120 Human Anatomy & Physiology II	4
General Education	3	General Education	3
General Education	3		-
	-		-
	<b>16</b>		<b>14</b>
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOL330 Cell & Molecular Biology	4	BIOLxxx Biology course	3
BIOLxxx Biology course	3	CHEM410 Biochemistry	4
PHYS130 Physics I (MATH 113 Prerequisite)	4	PHYS131 Physics II	4
General Education	3	General Education	3
	-	General Education	3
	-		-
	<b>14</b>		<b>17</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOL340 Microbiology	4	BIOL410 Organismal Physiology	3
BIOLxxx Biology course	1	General Education	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	2
	-		-
	<b>14</b>		<b>14</b>

**Biology: Cellular and Organismal Biology - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
(at least one from Philosophy or Literature)	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(28 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM220: Organic Chemistry I#	4
CHEM221: Organic Chemistry II#	4
CHEM410: Biochemistry I#	4
PHYS130: Physics I#	4
PHYS131: Physics II#	4
<b>Core Biology Requirements</b>	<b>(12 sh)</b>
BIOL202: Genetics#	3
BIOL206: Botany#	3
BIOL240: Zoology#	3
BIOL410: Organismal Physiology#	3
<b>Other Biology Requirements</b>	<b>(8 sh)</b>
BIOL330: Cell & Molecular Biology#	4
BIOL340: Microbiology#	4
<b>Biology Electives</b>	<b>(12 sh)</b>
Take 12 credits of 200-400 level# BIOL courses*	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**BIOLOGY: CELLULAR AND ORGANISMAL BIOLOGY**  
Suggested Course Sequence

<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	General Education	3
General Education- MATHxxx (depends on Math Placement test)	3	General Education	3
General Education	3	General Education	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
BIOL206 Botany I	3	BIOL202 Genetics	3
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
PHYS130 Physics I (MATH 113 Prerequisite)	4	PHYS131 Physics II	4
General Education	3	General Education	3
	-	General Education	3
	<b>14</b>		<b>17</b>
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOL340 Microbiology	4	BIOL240 Zoology	3
BIOL330 Cell & Molecular Biology	4	BIOLxxx Biology course	3
BIOLxxx Biology course	3	CHEM410 Biochemistry	4
General Education	3	General Education	3
	-	Electives	3
	<b>14</b>		<b>16</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOLxxx Biology course	3	BIOL410 Organismal Physiology	3
General Education	3	BIOLxxx Biology course	3
Elective	3	General Education	3
Elective	3	Elective	3
Elective	3	Elective	2
	-		-
	<b>15</b>		<b>14</b>

## Biology: Ecology and Environmental - Bachelor of Science

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
(at least one from Philosophy or Literature)	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(23 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM205: Introduction to Organic Chemistry#	4
GEOS130: Principles of Geology I	3
PHYS130: Physics I#	4
PHYS131: Physics II#	4
<b>Core Biology Requirements</b>	<b>(12 sh)</b>
BIOL202: Genetics#	3
BIOL206: Botany#	3
BIOL240: Zoology#	3
BIOL410: Organismal Physiology#	3
<b>Biology Requirements</b>	<b>(25 sh)</b>
BIOL309: Ecology	3
<b>Field Course Requirements</b>	<b>9</b>
At least 9 credits must be taken that are designated as field courses. Field courses are listed below.	
BIOL305: Ichthyology#	
BIOL317: Mycology#	
BIOL405: Field Ecology#	
BIOL409: Ornithology#	
BIOL411: Aquatic Biology#	
BIOL413: Entomology#	
BIOL430: Herpetology#	
BIOL432: Ecosystems#	
BIOL440: Environmental Microbiology# (BIOL340 prereq)	
Chincoteague Bay Field Station BIOL Field Courses#	
<b>Biology Electives</b>	<b>13</b>
Take 13 credits of 200-400 level# courses in Biology.* This category can also include field courses not taken in the category above.	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**BIOLOGY: ECOLOGY AND ENVIRONMENTAL BIOLOGY**  
**Suggested Course Sequence**

SEMESTER	SH	SEMESTER	SH
<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	General Education	3
General Education- MATH xxx (depends on Math Placement test)	3	General Education	3
General Education	3		
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
BIOL206 Botany I	3	BIOL202 Genetics	3
CHEM205 Intro. to Organic Chemistry	4	PHYS131 Physics II	4
PHYS130 Physics I (MATH 113 Prerequisite)	4	General Education	3
General Education	3	General Education	3
	-	General Education	3
	<b>14</b>		<b>16</b>
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOL309 Ecology	3	BIOL240 Zoology	3
BIOLxxx Biology course	3	BIOLxxx Biology course	3
GEOS130 Principles of Geology	3	BIOLxxx Biology course	3
General Education	3	General Education	3
Electives	3	Electives	3
	-		-
	<b>15</b>		<b>15</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOLxxx Biology course	3	BIOL410 Organismal Physiology	3
BIOLxxx Biology course	3	BIOLxxx Biology course	3
Elective	3	BIOLxxx Biology course	3
Elective	3	BIOLxxx Biology course	1
Elective	3	General Education	3
	-	Elective	2
	<b>15</b>		<b>15</b>



**Biology: Marine Biology - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
(at least one from Philosophy or Literature)	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(23 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM205: Introduction to Organic Chemistry#	4
GEOS120: Oceanography at Lock Haven University or MS110: Intro. to Oceanography at Chincoteague Bay Field Station	3
PHYS130: Physics I#	4
PHYS131: Physics II#	4
<b>Core Biology Requirements</b>	<b>(12 sh)</b>
BIOL202: Genetics#	3
BIOL206: Botany#	3
BIOL240: Zoology#	3
BIOL410: Organismal Physiology#	3
<b>Marine Biology Requirements</b>	<b>(9 sh)</b>
Minimum of 9 SH of Biology courses offered at Chincoteague Bay Field Station or other marine station#	
<b>Biology Electives</b>	<b>(16 sh)</b>
Take 16 credits of 200-400 level# BIOL courses*	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**BIOLOGY: MARINE BIOLOGY**  
**Suggested Course Sequence**

<b>SEMESTER</b>	<b>SH</b>	<b>SEMESTER</b>	<b>SH</b>
<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	GEOS120 Oceanography	3
General Education- MATH xxx (depends on Math Placement test)	3	General Education	3
General Education	3	General Education	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
BIOL206 Botany I	3	BIOL202 Genetics	3
CHEM205 Intro. to Organic Chemistry	4	PHYS131 Physics II	4
PHYS130 Physics I (MATH 113 Prerequisite)	4	General Education	3
General Education	3	General Education	3
	-	General Education	3
	<b>14</b>		<b>16</b>
<b>At least one summer of Biology classes offered at Chincoteague Bay Field Station (CBFS) or other marine station (Minimum total of 9 SH for the degree)</b>			
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOLxxx Biology course	3	BIOL240 Zoology	3
BIOLxxx Biology course	3	BIOLxxx Biology course	3
General Education	3	BIOLxxx Biology course	3
General Education	3	General Education	3
Elective	2		-
	-		-
	<b>14</b>		<b>12</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOLxxx Biology course	3	BIOL410 Organismal Physiology	3
BIOLxxx Biology course	1	General Education	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3		-
	-		-
	<b>13</b>		<b>12</b>

**Business Administration – Associate of Science**  
Effective Fall 2017

GENERAL EDUCATION REQUIREMENTS		27 sh
<b>INTELLECTUAL FOUNDATION</b> 9 sh Taken		
Written Communication	3 sh	
ENGL100		
Oral Communication	3 sh	
Mathematical and Computational Thinking	3 sh	
MATH107		
Critical Thinking		
CT Competency 1: PHIL102		
CT Competency 2:		
<b>KNOWLEDGE &amp; INQUIRY</b>		9 sh
Natural Science Inquiry ( <i>with lab</i> )	3 sh	
Historical, Behavioral, & Social Science Inquiry	3 sh	
ECON102 or ECON103		
Philosophical, Literary, & Aesthetic Inquiry	3 sh	
PHIL102		
<b>PERSONAL &amp; SOCIAL RESPONSIBILITY</b>		6 sh
Global Awareness and Citizenship	3 sh	
HIST101 or HIST102		
Wellness	3 sh	
<b>ELECTIVES</b>		3 sh

**WARNING: MATH COURSES MAY BE REQUIRED**

IF math placement score is BELOW 9 in:

Cat. 1, MATH 009 is required as a 0 credit course

Cat. 2, MATH100 is required as a gen ed elective

Cat. 3, MATH112 is required as a gen ed elective

MAJOR REQUIREMENTS		36 sh
<i>An overall minimum 2.00 grade point average is required in major</i>		
<b>CORE REQUIREMENTS</b>		24 sh Taken
MANG105: Introduction to Business	3 sh	
<i>Upper-level transfer students may substitute major elective</i>		
<i>Meets FYS requirement</i>		
ACCT110: Financial Accounting	3 sh	
ACCT115: Management Accounting	3 sh	
<i>Prerequisite: ACCT110</i>		
COMP150: Introduction to Computers	3 sh	
COMP250: Advanced Microcomputer Apps	3 sh	
<i>Prerequisite: COMP150, &amp; grade "C" or better in MATH107</i>		
ENGL345: Business Writing	3 sh	
MANG315: Management: Concepts & Strategies	3 sh	
<i>Prerequisite: 45 semester hours</i>		
MRKT200: Introduction to Marketing	3 sh	
<b>MANAGEMENT TRACK</b>		12 sh
PSYC235: Interpersonal & Leadership Skills	3 sh	
MANG317: Entrepreneurship	3 sh	
<i>Prerequisite: MANG315 &amp; MRKT200</i>		
MANG320: Human Resources Management	3 sh	
<i>Prerequisite: MANG315</i>		
TRACK ELECTIVE: _____	3 sh	
<i>Management track electives include any ACCT, COMP, ECON, MANG, or MRKT Course. Management track electives may also come from any major/major elective course listed on the B.S. in Business Administration Checklist if approved by advisor.</i>		
<b>HEALTHCARE MANAGEMENT TRACK</b>		12 sh
HLTH108: Med. Terminology for Hlth Professions	3 sh	
HLTH225: Comparative Healthcare	3 sh	
PHIL415: Ethical Issues in Healthcare Professions	3 sh	
TRACK ELECTIVE: _____	3 sh	
<i>Healthcare Management track electives include HLTH102, HLTH140, HLTH204, HLTH307, HLTH315, HLTH320, HLTH401, HLTH402, HLTH430, HLTH498, POLI335, SOCW110 or another health related course if approved by advisor.</i>		



**ECONOMICS AND FINANCE (15) #****REQUIRED CORE:**

ECON310	Intermediate Macroeconomics	3 sh	S	_____
	<i>Prerequisites: ECON101 or ECON102</i>			
ECON315	Intermediate Microeconomics	3 sh	F	_____
	<i>Prerequisites: ECON101 or ECON103</i>			
MANG430	International Financial Management	3 sh	S	_____
	<i>Prerequisites: MANG325</i>			

**CONCENTRATION ELECTIVES (Select 2):**

MANG326	Fundamentals of Investment Mgmt	3 sh	*	_____
MANG360	Small Business Finance	3 sh	*	_____
	<i>Prerequisite: MANG325</i>			
MANG480	Topics in Business (Finance)	3 sh	*	_____
ECON301	Economics of the Environment	3 sh	*	_____
ECON328	Social Seminar	3 sh	*	_____
ECON330	Economic Development	3 sh	*	_____
ECON350	Comparative Economic Systems	3 sh	*	_____
ECON355	International Trade and Finance	3 sh	S	_____
ECON360	Current Economic Problems	3 sh	*	_____
ECON410	Econometrics	3 sh	*	_____

**ENTREPRENEURSHIP & INNOVATION (15) #****REQUIRED CORE:**

MANG317	Entrepreneurship	3 sh	F	_____
	<i>Prerequisites: MANG315 &amp; either MRKT200 or RECR330</i>			
MANG350	Small Business Management	3 sh	S	_____
	<i>Prerequisite: MANG317</i>			
MRKT310	Entrepreneurial & Small Biz Marketing	3 sh	F	_____
	<i>Prerequisite: MRKT200</i>			

**CONCENTRATION ELECTIVES (Select 2)\*\*:**

MANG320	Human Resource Management	3 sh	F	_____
MANG345	Strategic Sustainability	3 sh	*	_____
MANG355	Social Entrepreneurship	3 sh	*	_____
MANG360	Small Business Finance	3 sh	*	_____
	<i>Prerequisite: MANG325</i>			
MANG425	International Business	3 sh	B	_____
MRKT305	Internet Marketing & eCommerce	3 sh	*	_____
MRKT410	Marketing Research	3 sh	*	_____
MRKT405	Behavioral Pricing	3 sh	*	_____
MANG480	Topics in Business (Entrepreneurship)	3 sh	*	_____

\*\* Electives for the Entrepreneurship and Innovation Concentration can include any course approved for the Entrepreneurship Minor

**INTERNATIONAL BUSINESS (15) #****REQUIRED CORE:**

ECON355	International Trade & Finance	3 sh	S	_____
MANG425	International Business	3 sh	B	_____
MANG430	International Financial Management	3 sh	S	_____

*Students in Int'l. Business are strongly encouraged to study at least 1 semester abroad and to become proficient in another language.*

**CONCENTRATION ELECTIVES (Select 2):**

ECON330	Economic Development	3 sh	*	_____
GEOG440	Economic Geography	3 sh	*	_____
HIST390	Contemporary World Problems	3 sh	*	_____
POLI315	Politics in Developing Nations	3 sh	*	_____
POLI322	International Political Economy	3 sh	*	_____
POLI350	International Relations	3 sh	*	_____
MANG480	Topics in Business (International)	3 sh	*	_____

**MANAGEMENT (15) #****REQUIRED CORE:**

MANG320	Human Resource Management	3 sh	B	_____
	<i>Prerequisite: MANG315</i>			
MANG425	International Business	3 sh	B	_____
	<i>Prerequisites: MANG315 &amp; MANG325</i>			
MANG400	Business, Society & Govt.	3 sh	B	_____
	<i>Prerequisites: MANG315 &amp; either PHIL102 or PHIL425</i>			

**CONCENTRATION ELECTIVES (Select 2):**

MANG317	Entrepreneurship	3 sh	F	_____
MANG350	Small Business Management	3 sh	S	_____
MANG480	Topics in Business (Management)	3 sh	*	_____
POLI260	Intro to Public Administration	3 sh	F	_____
POLI325	Labor Management Relations	3 sh	*	_____
POLI330	Public Policy	3 sh	S	_____
PSYC235	Interpersonal & Leadership Skills (EL)	3 sh	B	_____

**BUSINESS INTELLIGENCE (15) #**

These courses are all required

COMP235	Intro to Data Science	3 sh	F	_____
COMP245	Intro to Programming for Data Sci	3 sh	F	_____
COMP255	Database Design	3 sh	F	_____
	<i>Prerequisite: COMP250</i>			
COMP340	Data Mining	3 sh	S	_____
MANG342	Fund. of Management Science	3 sh	S	_____

**MARKETING (15) #****REQUIRED CORE:**

	<i>Prerequisite for all 3 required courses is MRKT200</i>			
MRKT300	Consumer Behavior	3 sh	S	_____
MRKT305	Internet Marketing	3 sh	*	_____
MRKT410	Marketing Research	3 sh	*	_____
	<i>Prerequisite for MRKT410 is also MATH107</i>			

**CONCENTRATION ELECTIVES (Select 2):**

MRKT310	Entrepreneurial & Small Bus. Mktg.	3 sh	F	_____
MRKT405	Behavioral Pricing	3 sh	*	_____
MRKT480	Topics in Marketing	3 sh	*	_____
MANG317	Entrepreneurship	3 sh	F	_____
COMM292	Principles of Advertising	3 sh	_____	_____
COMP255	Database Design	3 sh	F	_____
	<i>Prerequisite: Grade "C" or better in MATH 107</i>			
MUSI308	Music Marketing	3 sh	_____	_____
SPRT233	Sport Sales, Sponsorship & Fundraising	3 sh	_____	_____

**Warning:** \* All courses on this page marked with an asterisk are taught less frequently than once a year.



**Chemistry, B.S. Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
 SCI119: First Year Student Seminar (1)  
 CHEM120: Principles of Chemistry I (4)  
 MATH141: Calculus I (3)  
 HBSS1 (Historical, Behavioral, and Social Science Inquiry) (3)

Credit Total: \_\_\_\_\_14

**Spring Freshman (example)**

CHEM121: Principles of Chemistry II (4)  
 MATH142: Calculus II (3)  
 PHYS170: Intermediate General Physics I (4)  
 GAC1(Global Awareness and Citizenship) (3)  
 PLA1 (Philosophical, Literary, and Aesthetic Inquiry)(3)

Credit Total: \_\_\_\_\_17

**Fall Sophomore (example)**

CHEM220: Organic Chemistry I (4)  
 CHEM316: Quantitative Analysis (4)  
 PHYS171: Intermediate General Physics II (4)  
 Elective (3)

Credit Total: \_\_\_\_\_15

**Spring Sophomore(example)**

CHEM221: Organic Chemistry II (4)  
 CHEM410: Biochemistry I (4) or  
 CHEM In-depth (4)  
 HBSS2 (3)  
 Oral Communication (3)  
 PLA2 (3)

Credit Total: \_\_\_\_\_17

**Fall Junior (example)**

CHEM320: Physical Chemistry I (4), CHEM301: Inorganic  
 Chemistry (3),  
 CHEM Elective (3-4), and/or  
 CHEM In-depth (4)  
 GAC2 (3)  
 Elective (3)

Credit Total: \_\_\_\_\_12-16

**Spring Junior (example)**

CHEM321: Quantum Chemistry (4), CHEM440: Advanced  
 Inorganic Chemistry (4),  
 CHEM410 Biochemistry I (4),  
 CHEM In-depth (4), and/or  
 CHEM Elective (3-4)  
 Elective (3)

Credit Total: \_\_\_\_\_14-15

**Fall Senior (example)**

CHEM301: Inorganic Chemistry (3), CHEM320: Physical  
 Chemistry I (4),  
 In-depth (4), and/or  
 CHEM Elective (3-4)  
 GAC3 (3)  
 Wellness (3)  
 Elective (3)

Credit Total: \_\_\_\_\_15-17

**Spring Senior (example)**

CHEM440 Advanced Inorganic Chemistry (4), CHEM 321:  
 Quantum Chemistry (4),  
 In-depth (4), and/or  
 CHEM Elective (3-4)  
 CHEM499 (1)  
 PLA3 (3)  
 Electives (5)

Credit Total: \_\_\_\_\_12-17







**Lock Haven University**  
**B.S. Chemistry – Clinical Laboratory Science Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
 SCI119: First Year Student Seminar (1)  
 CHEM120: Principles of Chemistry I (4)  
 BIOL106: Principles of Biology I (3)  
 MATH141: Calculus (3)

Credit Total: \_\_\_\_ 14

**Spring Freshman (example)**

CHEM121: Principles of Chemistry II (4)  
 BIOL107: Principles of Biology II (3)  
 GAC1(Global Awareness and Citizenship) (3)  
 PLA1 (Philosophical, Literary, and Aesthetic Inquiry) (3)  
 HBS1 (Historical, Behavioral, & Social Science Inquiry) (3)

Credit Total: \_\_\_\_ 16

**Fall Sophomore (example)**

CHEM220: Organic Chemistry I (4)  
 CHEM316: Quantitative Analysis (4)  
 PHYS130: Physics I (4)  
 PLA2 (3)

Credit Total: \_\_\_\_ 15

**Spring Sophomore (example)**

CHEM221: Organic Chemistry II (4)  
 BIOL202: Genetics (3)  
 PHYS131: Physics II (4)  
 HBS2 (3)  
 PLA3 (3)

Credit Total: \_\_\_\_ 17

**Fall Junior (example)**

BIOL340: Microbiology (4)  
 Wellness (3)  
 GAC2 (3)  
 Gen Ed Electives (4)

Credit Total: \_\_\_\_ 14

**Spring Junior (example)**

CHEM410: Biochemistry I (4)  
 BIOL310: Immunology (3)  
 Oral Communication (3)  
 GAC3 (3)  
 Gen Ed Electives (3)

Credit Total: \_\_\_\_ 16

**Fall Senior (example)**

MTEC (14)\*

Credit Total: \_\_\_\_ 14

**Spring Senior (example)**

MTEC (14)\*

Credit Total: \_\_\_\_ 14

\*A minimum of 28 credits are completed at a nationally accredited program in Clinical Laboratory Science.



**Chemistry - Forensic Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SCI119: First Year Student Seminar (1)  
MATH141: Calculus I (3)  
CHEM120: Principles of Chemistry I (4)  
BIOL106: Principles of Biology I (3)

---

Credit Total: \_\_\_\_\_14

**Spring Freshman (example)**

MATH142: Calculus II (3)  
CHEM121: Principles of Chemistry II (4)  
BIOL107: Principles of Biology II (3)  
SOC1101: Intro Sociology (3)  
Wellness (3)

---

Credit Total: \_\_\_\_\_16

**Fall Sophomore (example)**

CHEM220: Organic Chemistry I (4)  
BIOL202: Genetics (3)  
Historical, Behavioral, and Social Science (3)  
PLA1 (Philosophical, Literary, and Aesthetic Inquiry) (3)  
GAC1 (Global Awareness and Citizenship) (3)

---

Credit Total: \_\_\_\_\_16

**Spring Sophomore(example)**

CHEM221: Organic Chemistry II (4)  
PHYS170: Intermediate General Physics I (4)  
PLA2 (3)  
Elective (3)

---

Credit Total: \_\_\_\_\_14

**Fall Junior (example)**

PHYS171: Intermediate General Physics II (4)  
CHEM316: Quantitative Analysis (4)  
CHEM320: Physical Chemistry I (4)\*  
CRJS102: Intro Criminal Justice (3)

---

Credit Total: \_\_\_\_\_15\*

**Spring Junior (example)**

CHEM317: Instrumental Analysis (4)  
CRJS240: Law Enforcement (3)  
GAC2 (3)  
Electives (6)

---

Credit Total: \_\_\_\_\_16

**Fall Senior (example)**

CHEM3xx/4xx: Upper level CHEM elective (3)\*  
CRJS310: Criminal Investigation (3)  
Oral Communication (3)  
GAC3 (3)  
Electives (3)

---

Credit Total: \_\_\_\_\_15\*

**Spring Senior (example)**

CHEM410: Biochemistry I (4)  
CRJS360: Criminal Procedure (3)  
PLA3 (3)  
Electives (4)

---

Credit Total: \_\_\_\_\_14

\* When the Fall semester of the junior year occurs in an even year (e.g., 2016) as written. When the Fall semester of the junior year occurs in an odd year (e.g., 2017), CHEM320 and CHEM3xx/4xx switch places and the credit totals become 14 and 16 for the junior and senior Fall semesters respectively. Also, the distribution of free electives allows for considerable flexibility for taking CHEM3xx/4xx as they become available and strike the interest of particular students in a given semester in the last two years of study.



**Nanoscience Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SCI119: First Year Student Seminar (1)  
MATH141: Calculus I (3)  
CHEM120: Principles of Chemistry I (4)  
NANO105: Intro to Nanoscale Science (3)

Credit Total: \_\_\_\_\_14

**Spring Freshman (example)**

MATH142: Calculus II (3)  
CHEM121: Principles of Chemistry II (4)  
PHYS170: Intermediate General Physics I (4)  
HBS1 (Historical, Behavioral, and Social Science) (3)

Credit Total: \_\_\_\_\_14

**Fall Sophomore (example)**

CHEM220: Organic Chemistry I (4)  
CHEM316: Quantitative Analysis (4)  
PHYS171: Intermediate General Physics II (4)  
PLA1 (Philosophy, Literature, Aesthetics) (3)

Credit Total: \_\_\_\_\_15

**Spring Sophomore (example)**

CHEM221: Organic Chemistry II (4)  
NANO210: Nano Tools and Techniques (3)  
GAC1 (Global Awareness and Citizenship) (3)  
PLA2 (3)  
Elective (3)

Credit Total: \_\_\_\_\_16

**Fall Junior (example)**

CHEM301 or Chemistry In-depth (3/4)  
CHEM499 (Nano research) (2)  
NANO306: Characterization of Nano-structures (3)  
  
HBSII (3)  
Wellness (3)

Credit Total: \_\_\_\_\_15\*

**Spring Junior (example)**

CHEM321 Quantum Chemistry or  
Chemistry In-depth (4)  
CHEM499 (Nano research) (2)  
GAC2 (3)  
NANO304: Generation & Modification, of  
Nanostructures (3)  
Electives (3)

Credit Total: \_\_\_\_\_15

**Fall Senior (example)**

CHEM301 or Chemistry In-depth (3/4)  
Oral Communication (3)  
GAC (3)  
Electives (7)

Credit Total: \_\_\_\_\_16\*

**Spring Senior (example)**

CHEM321 Quantum Chemistry or  
Chemistry In-depth (4)  
Chemistry In-depth (4)  
PLA3 (3)  
Electives (4)

Credit Total: \_\_\_\_\_15

\* When the Fall semester of the junior year occurs in an odd year (e.g., 2015) as written. When the Fall semester of the junior year occurs in an even year (e.g., 2016), CHEM301 and Chemistry In-depth switch places and the credit totals become 14 and 17 for the junior and senior Fall semesters respectively. Also, the distribution of free electives allows for considerable flexibility for taking CHEM3--/4-- as they become available and strike the interest of particular students in a given semester in the last two years of study.

## Communication Studies – Bachelor of Arts

For students entering Fall 2019

### INTELLECTUAL FOUNDATION (9 cr.)

- ENGL100: Composition
- COMM102, COMM103, or COMM104
- Math and Computational course (101 or higher)

### KNOWLEDGE AND INQUIRY (21 cr.)

#### Natural Science (6 cr.)

- Natural Science w/lab
- Natural Science w/o lab (or w/lab)

#### Historical, Behavioral, & Soc. Sci. Inquiry (6 cr.)

- Course 1
- Course 2

#### Philosophical, Literary, and Aesthetic Inquiry (9 cr.)

- Visual and Performing Arts
- Philosophy or Literature
- Philosophy, Literature or Visual and Performing Arts

### PERSONAL AND SOCIAL RESPONSIBILITY (12 cr.)

#### Global Awareness and Citizenship (9 cr.)

- GAC-H (e.g. HIST101 or HIST102)
- GAC or Lower Level Foreign Language
- GAC or Lower Level Foreign Language

#### WELLNESS (3 cr.)

- Course 1

### UNIVERSITY AND B.A. REQUIREMENTS (7 cr.)

- COMM119: First Year Seminar\*

#### Seminars (need 2 of 3 categories)

- #328Sem: Humanities, Social Sci., or Natural Sci./Math
- #328Sem: Humanities, Social Sci., or Natural Sci./Math

#### Language (12 cr. or achieving Level 4 proficiency)

- Level 1
- #Level 2
- #Level 3
- #Level 4

### GENERAL EDUCATION ELECTIVES (17 cr.)

#### Competencies (overlays) – 2 of each needed

Writing Competency, Critical Thinking, Experiential Learning

**78 Total Credits Gen Ed and Univ. Requirements**

### MAJOR AREA AND COGNATE (42 cr.)

#### Core Courses (required of all tracks) (12 cr.)

- COMM100: Introduction to Communication
- COMM150: Introduction to Mass Communication
- #COMM330: Cultural Studies in Mass Communication
- #COMM400: Communication Capstone Seminar

#### COMMUNICATION TRACKS (18 cr.) – must complete one Journalism

- COMM190: Writing for the Mass Media
- #COMM201/202/203: Practicum I\*, II\*, and III\* **or** #COMM369: Internship
- #COMM290: Multimedia Journalism
- #COMM393: News Editing
- #COMM493: Online Journalism
- #COMM494: Communication Law and Ethics

#### Electronic Media

- COMM190: Writing for the Mass Media
- #COMM201/202/203: Practicum I\*, II\*, and III\* **or** #COMM369: Internship
- #COMM295: Radio Journalism
- #COMM310: Television Journalism
- #COMM315: Corporate Video Production **or** #COMM317: Radio Workshop **or** #COMM 370: Digital Video Editing
- #COMM494: Communication Law and Ethics

#### Advertising and Public Relations

- COMM190: Writing for the Mass Media
- #COMM201/202/203: Practicum I\*, II\*, and III\* **or** #COMM369: Internship
- #COMM292: Principles of Advertising
- #COMM333: Public Relations
- #COMM495: Public Relations Writing
- #COMM494: Communication Law and Ethics

#### Organizational and Presentational Communication

- COMM103: Small Group Communication **or** COMM104: Interpersonal Communication
- #COMM208: Communication Theory
- #COMM300: Organizational Communication **or** #COMM320: Business Communication
- #COMM303: Argumentation and Debate **or** #COMM345: Advanced Public Speaking
- #COMM360: Communication Analysis **or** #COMM405: Communication and Responsibility
- #COMM369: Internship

### COMMUNICATION ELECTIVES (12 cr.)

*(at least six credits must be advanced level indicated by #)*

**42 Credits of Major Requirements**





**AA in Criminal Justice  
Suggested Course Sequence**

**Abbreviations:** PLA (Philosophical, Literary and Aesthetic); HBSS (Historical, Behavioral and Social Sciences); NS (Natural Sciences); GAC (Global Awareness and Citizenship); GAC-H (Global Awareness and Citizenship Historical Foundation); MCT (Mathematical and Computational Thinking); WEL (Wellness)

**Fall Freshman (example)**

ENGL100: Composition  
CRJS102: Introduction to Criminal Justice  
General Education: NS  
SOC1101: Intro to Sociology Gen Ed: HBSS  
MATH Gen Ed: MCT  
CRJS119: Freshmen Seminar

Credit Total: 16

**Spring Freshman (example)**

CRJS240: Law Enforcement  
PSYC100: Intro to Psychology Gen Ed: HBSS  
CRJS302: Criminology  
Elective  
General Education: GAC

Credit Total: 15

**Fall Sophomore (example)**

CRJS260 Criminal Law  
General Education: GAC-H  
General Education: OC  
CRJS305: Corrections  
Elective

Credit Total: 15

**Spring Sophomore (example)**

CRJS301: Juvenile Justice  
CRJS304: Criminal Justice Ethics  
General Education PLA  
Elective  
General Education WEL

Credit Total: 15

**PLEASE NOTE**

- This check sheet of suggested course progression is a guide. Students must meet with their advisors each semester prior to registration for guidance on academic progress and course offerings. This is a hypothetical 4 semester map. It is not expected or likely that any student would take the courses required for the AA in exactly the above listed sequence.
- Graduation in two years requires that students enroll in and pass 15 new credits with the guidance of their academic advisor each semester.
- General education requirements dictate that students must take a MATH course above MATH100 or MATH009 to satisfy those requirements. Some students may be required to take a preparatory Math Course in order to be eligible for a MATH course that satisfies the general education requirement, which could cause them to graduate with more than the required 60 credits for the AA. MATH107 is strongly suggested as the selection.
- General education requirements dictate that students must take ENGL100. Some students may be required to take ENGL090 prior to ENGL100, which could cause them to graduate with more than the required 60 credits for the AA.
- Students select 9 credits (3 courses) of elective choice with guidance from their Academic Advisor. These credits may be taken in any semester and can include criminal justice and non-criminal justice courses. CRJS210: Diversity in Criminal Justice is strongly suggested as one of the electives.

## Criminal Justice - Bachelor of Science

Effective Fall 2018

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107: Basic Statistics	
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (at least one lab)</b>	<b>6 sh</b>
Natural Science with Lab	
Natural Science with or without Lab	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	
SOCI101: Introduction to Sociology	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Aesthetics:	
Philosophy/Literature:	
PLA:	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GAC:	
GAC:	
GAC-H:	
<b>Wellness</b>	<b>3 sh</b>
WELL:	
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
CRJS119: Freshman Seminar	

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Required Courses</b>	<b>36 sh</b>
CRJS102: Introduction to Criminal Justice (min. grade C)	
#CRJS205: Drug Abuse	
#CRJS210: Diversity in Criminal Justice	
#CRJS240: Law Enforcement	
#CRJS260: Criminal Law	
#CRJS290: World Criminal Justice Systems	
#CRJS301: Juvenile Justice	
#CRJS302: Criminology	
#CRJS305: Corrections	
#CRJS360: Criminal Procedure	
#CRJS425: Senior Seminar	
#CRJS490: Criminal Justice Research	

<b>Electives toward the major</b>	<b>24 sh</b>
At least 12 sh must be 300 or 400 level courses	
Elective	
Elective	
Elective	
Elective	
#Elective	
#Elective	
#Elective	
#Elective	

42 sh must be # advanced coursework

**Criminal Justice Department  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
 CRJS119: Freshman Seminar (1)  
 CRJS102: Introduction to Criminal Justice (3)  
 SOCI101: Introduction to Sociology (3)  
 PSYC100: Introduction to Psychological Science (3)  
 Wellness General Education (3)

Credit Total: 16

**Spring Freshman (example)**

CRJS240: Law Enforcement (3)  
 CRJS205: Drug Abuse (3)  
 General Education (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Fall Sophomore (example)**

CRJS260: Criminal Law (3)  
 CRJS302: Criminology (3)  
 General Education (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Spring Sophomore(example)**

CRJS301: Juvenile Justice (3)  
 CRJS210: Diversity in Criminal Justice (3)  
 MATH107: Basic Statistics (3)  
 General Education (3)  
 Elective toward major (3)

Credit Total: 15

**Fall Junior (example)**

CRJS290: World Criminal Justice Systems (3)  
 CRJS305: Corrections (3)  
 General Education (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Spring Junior (example)**

CRJS360: Criminal Procedure (3)  
 CRJS490: Criminal Justice Research (3)  
 General Education (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Fall Senior (example)**

CRJS425: Senior Seminar (3)  
 General Education (3)  
 General Education (2)  
 Elective toward major (3)  
 Elective toward major (3)

Credit Total: 14

**Spring Senior (example)**

Elective toward major (3)  
 Elective toward major (3)  
 Elective toward major (3)  
 Elective toward major (3)  
 Elective toward major (3)

Credit Total: 15



**Conservation Law Enforcement Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
 CRJS119: Freshman Seminar (1)  
 CRJS102: Introduction to Criminal Justice (3)  
 SOCI101: Introduction to Sociology (3)  
 PSYC100: Introduction to Psychological Science (3)  
 Wellness General Education (3)

Credit Total: 16

**Spring Freshman (example)**

CRJS240: Law Enforcement (3)  
 CRJS205: Drug Abuse (3)  
 General Education (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Fall Sophomore (example)**

CRJS302: Criminology (3)  
 CRJS260: Criminal Law (3)  
 CRJS220: Conservation Law Enforcement (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Spring Sophomore(example)**

CRJS360: Criminal Procedure (3)  
 CRJS210: Diversity in Criminal Justice (3)  
 MATH107: Basic Statistics (3)  
 ENVT101: Intro to Environmental Studies (3)  
 General Education (3)

Credit Total: 15

**Fall Junior (example)**

CRJS290: World Criminal Justice Systems (3)  
 CRJS305: Corrections (3)  
 CRJS304: Ethics or  
 CRJS 310: Criminal Investigation (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Spring Junior (example)**

CRJS490: Criminal Justice Research (3)  
 CRJS301: Juvenile Justice (3)  
 CRJS309: Environmental Justice (3)  
 General Education (3)  
 General Education (3)

Credit Total: 15

**Fall Senior (example)**

CRJS425: Senior Seminar (3)  
 General Education (3)  
 General Education (3)  
 General Education (2)  
 Elective toward major (3)

Credit Total: 14

**Spring Senior (example)**

General Education (3)  
 General Education (3)  
 Elective toward major (3)  
 Elective toward major (3)  
 Elective toward major (3)

Credit Total: 15

## Disability and Community Services - Bachelor of Science

Effective Fall 2018

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min. Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC: Assumed by major coursework		
WC: Assumed by major coursework		
<b>Oral Communication</b>		3 sh
COMM103 Recommended	C-	
<b>Mathematical and Computational Thinking</b>		3 sh.
<b>Critical Thinking</b>		
CT: Assumed by major coursework		
CT: Assumed by major coursework		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>		6 sh
<b>Historical, Beh., and Social Science Inquiry</b>		6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		9 sh

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major	C	
SOCW110 Recommended		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL: Assumed by major coursework		
EL: Assumed by major coursework		

Major Coursework Credit Total		61
<b>First Year Student Seminar</b>	Min. Grade	1 sh
SPEC119 First Year Seminar	CR	1

Major Area and Cognate Courses		60 sh
<b>Required Special Education Courses</b>		24
SPEC105 Foundations of Special Education	C	
SPEC202 Cultural and Linguistic Diversity	C	GAC
SPEC215 High Incidence Disabilities Support*	C	
SPEC212 Low Incidence Disabilities Support*	C	
SPEC300 Comm. Dis. and Assist. Technology*	C	
SPEC310 Manual Communication and Signing*	C	
SPEC325 Infant/Preschool Special Needs*	C	
SPEC330 Physical Ed. & Rec. for the Disabled*	C	
SPEC338 Positive Behavior Support*	C	
<b>Required Social Work Courses</b>		15
SOCW102 Introduction to Social Work	C	
SOCW201 Human Beh. in the Social Environ. 1*	C	
SOCW203 Human Beh. in the Social Environ. 2*	C	
SOCW4xx Social Work Elective*	C	
SOCW4xx Social Work Elective*	C	
<b>Required Professional Courses</b>		9
SPEC400 Professional Skills and Technology*	C	
SPEC432 Assessing Needs and Transition Planning		
COMM320 Bus. Comm. Or ENGL345 Bus. Writing		
<b>Community Service Agency Field Experience</b>		12
SPEC450 Comm. Ser. Agency Based Field Exp.*	B	
Advising Notes:		
1. In GE requirements: one PLA course must be in philosophy or literature course.		
2. In GE requirements: one GAC course must be in historical foundations		
3. * represents Advanced coursework		

<b>Electives</b>		<b>17 sh</b>


\*Denotes Advanced Coursework

**Disability and Community Services (BS)  
Suggested Course Sequence**

<b>Fall First Year</b>	<b>SH</b>	<b>Spring First Year</b>	<b>SH</b>
SPEC119 Freshman Seminar	1	SOCW102 Introduction to Social Work	3
ENGL100 Composition	3	SPEC212 Low Incidence Disabilities Support	3
SPEC105 Foundations of Special Education	3	2 General Education Courses	6
3 General Education Courses	9	1 Elective	3
	-		-
	<b>16</b>		<b>15</b>
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
SPEC215 High Incidence Disabilities Support	3	SPEC202 Cultural and Linguistic Diversity	3
SOCW201 Human Beh. in the Social Environ. 1	3	SPEC330 P.E. and Rec for the Disabled	3
2 General Education Courses	6	SOCW203 Human Beh. in the Social Environ. 2	3
1 Elective	2	1 General Education Course	3
	-	1 Elective	3
	<b>14</b>		<b>15</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
SPEC300 Comm. Disorders and Assistive Tech.	3	SPEC325 Infant Preschool Special Needs	3
SPEC310 Manual Communication and Signing	3	3 General Education Courses	6
SPEC338 Positive Behavior Support	3	1 Social Work Elective	3
1 Social Work Elective	3	1 Elective	3
1 General Education Course	3		-
	-		<b>18</b>
	<b>15</b>		
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
SPEC400 Professional Skills and Technology	3	SPEC450 Comm. Service Agency Based Field Exp	<b>12</b>
SPEC4xx Assessing Needs and Transition Planning	3		
COMM320 Bus. Comm. Or ENGL345 Bus. Writing	6		
2 Electives	-		
	<b>15</b>		

<b>Fall First Year</b>	<b>SH</b>	<b>Spring First Year</b>	<b>SH</b>
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SPEC119 Freshman Seminar	1	SOCW102 Introduction to Social Work	3
ENGL100 Composition	3	SPEC 212 Low Incidence Disabilities Support	3
SPE 105 Foundations of Special Education	3	2 General Education Courses	6
3 General Education Courses	9	1 Elective	3
-	-	-	-
<b>16</b>		<b>15</b>	
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
SPEC215 High Incidence Disabilities Support	3	SPEC202 Cultural and Linguistic Diversity	3
SOCW201 Human Beh. in the Social Environ. 1	3	SPEC330 P.E. and Rec for the Disabled	3
2 General Education Courses	6	SOCW203 Human Beh. in the Social Environ. 2	3
1 Elective	3	1 General Education Course	3
-	-	1 Elective	3
<b>15</b>		-	-
		<b>15</b>	
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
SPEC300 Comm. Disorders and Assistive Tech.	3	SPEC325 Infant Preschool Special Needs	3
SPEC310 Manual Communication and Signing	3	SPEC345 Literacy Skills for Students with Dis.	3
1 Social Work Elective	3	2 General Education Courses	6
SPEC338 Positive Behavior Support	3	1 Social Work Elective	3
1 General Education Course	3	1 Elective	3
-	-	-	-
<b>15</b>		<b>18</b>	
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
SPEC400 Professional Skills and Technology	3	SPEC450 Comm. Service Agency Based Field Exp	12
1 General Education Course	3		
COMM320 Business Communication	3		
2 Electives	6		
-	-		
<b>15</b>			



## Elementary Middle Level Education: Biology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL106: Principles of Biology I (3 sh)	C	
GEOS101: Earth Sci. or GEOS130: Prin. of Geology I (3sh)	C	
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
HIST150: American History, HIST201: Hist. of US 1, or HIST202: Hist. of US II (3 sh)	C	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
<b>Wellness</b>		<b>3 sh</b>
Wellness (3 sh)	C	

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML414: Science Methods III	C	3 sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML431: Mathematics Methods I	C	1 sh
#ELML441: Social Studies Methods I	C	1 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
ELML210: Learning Theory	C	3 sh
BIOL102: Environmental Science	C	3 sh
Choose 1 Introductory Level Biology Course: BIOL108, BIOL110, PHYS102, PHYS110, PHYS135, PHYS145, CHEM105, CHEM111, GEOS120, SCI111 or SCI201	C	3 sh
BIOL107: Principles of Biology II	C	3 sh
#Choose 2 Advanced Level Biology Courses: BIOL200, BIOL202, BIOL205, BIOL206, BIOL240, or BIOL306	C	6 sh
MATH112: Intermediate Algebra	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced Level Courses

<b>Experiential Learning</b>		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	3 sh

✓ Met in course requirements

**Lock Haven University**  
**Pre-K-Grade 8 & Professional Studies Department**  
**Elementary/Middle Level Education (Science-Biology)**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
BIOL Introductory Level Course Choice (see list)  
BIOL106 Principles of Biology I  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

HIST150 Am. Hist., HIST201 Hist. of US 1, or HIST201 Hist. of US II  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
Wellness  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOG101 World Regional Geography  
BIOL Advanced Level Course Choice (see list)  
Art/ Music/ Theater  
PLA Course

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML414 Science Methods for Elementary and Middle Level Grades III  
ELML420 Language Arts Methods for Elementary and Middle Level Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I (1 cr)  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL107 Principles of Biology II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Principles of Geology I  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
BIOL102 Environmental Science  
BIOL Advanced Level Course Choice (see list)  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_

## Elementary Middle Level Education: Biology with Special Education – Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency:	
WC Competency:	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Lit Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency:	
CT Competency:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology 1 (3 sh)	
GEOS101: Earth Sci. or GEOS/130: Prin of Geo (3 sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC103: Adolescent Psychology (3 sh)	
HIST202 Hist. of US II (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency:	
EL Competency:	

<b>*Certification Students Only:</b>	
<b>#SPEC338: Positive Behavior Support</b>	<b>3 sh</b>
*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.	

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem /Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML322: Math for the Elem/ Mid. Level Learn.	3 sh
#ELML431: Mathematics Methods I	1 sh
#ELML414: Science Methods III	3 sh
#ELML441: Social Studies Methods I	1sh
#ELML405: Interven./Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/mid. Level	1 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Dis. and Assistive Technology	3 sh
#SPEC345: Lit. Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incidence Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh

<b>Cognate Courses</b>	
BIOL102: Environmental Science	3 sh
<i>Choose 1 Introductory Level Biology Course:</i> BIOL108, BIOL110, PHYS 102, PHYS110, PHYS 135, PHYS145, CHEM105, CHEM 111, GEOS 110, GEOS 120, SCI 201, or SCI110	3 sh
BIOL107: Principles of Biology 2	3 sh
CHEM101: Chemistry in the Environment	3 sh
CHEM105: Forensic Chemistry	
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
<i>#Choose 2 Advanced Level Biology Courses:</i> BIOL200, BIOL202, BIOL205, BIOL206, BIOL240, BIOL306	6 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed	3 sh
SPEC215: High Incidence Disability Support	3 sh
ELML210: Learning Theory	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

**Elementary/Middle Level Education (Science-Biology) / Special Education  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
MATH102 Number Systems  
HIST101 or 102 World History 1 or 2  
BIOL106 Principles of Biology 1  
ELML119 Freshman Seminar for Elementary and Middle Level  
Education Students (1 cr)

Credit Total: \_\_\_ 13 \_\_\_

**Fall Sophomore (example)**

Biology- Introductory Level Course Choice  
HIST202 Hist. of US II  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
Wellness

Credit Total: \_\_\_ 18 \_\_\_

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_ 6 \_\_\_

**Fall Junior (example)**

POLI107 World Politics  
Biology-Advanced Level Course Choice  
GEOG101 World Regional Geography  
Art./Music/Theater/Dance (Gen Ed)  
SPEC212 Low Incidence Disability Support

Credit Total: \_\_\_ 15 \_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Total Credits: \_\_\_ 6 \_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level  
Grades I  
ELML414 Science Methods for Elementary and Middle Level Grades  
III  
ELML441 Social Studies Methods for Elementary and Middle Level  
Grades I  
ELML405 Intervention and Classroom Management Strategies for  
Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level  
Grades (1 cr)

Credit Total: \_\_\_ 15 \_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIO107 Principles of Biology 2  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades (2 cr)

Credit Total: \_\_\_ 17 \_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem  
BIO102 Environmental Science  
Biology: Advanced Level Course Choice  
SPEC204 Cognitive Development of Diverse Learners or SPEC105  
Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total: \_\_\_ 18 \_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learner  
ELML330 Language Acquisition Theory and Wtg. Instruction or  
SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices  
 Credit Total: \_\_\_ 18 \_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum:  
Elementary and Middle Level I  
SPEC494 Student Teaching and Professional Practicum:  
Elementary and Middle Level II

Credit Total: \_\_\_ 12 \_\_\_

## Elementary Middle Level Education: English, Language Arts, and Reading - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	C	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	C	
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
HIST150: Am. Hist., HIST201: Hist. of US I, or HIST202: Hist. of US II (3 sh)	C	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
<b>Wellness</b>		<b>3 sh</b>
Wellness (3 sh)	C	
<b>Experiential Learning</b>		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	<b>3 sh</b>

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML210: Learning Theory	C	3 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML321: LA Elem/Mid. Level Learn.	C	3 sh
#ELML322: Mathematics Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML410: Science Methods I	C	1 sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML422: Language Arts II	C	2 sh
#ELML431: Mathematics Methods I	C	1 sh
#ELML441: Social Studies Methods I	C	1 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
THEA110: Theatre: An Orientation	C	3 sh
#READ300: Intermediate Reading	C	3 sh
ENGL235: Lit. for Adolescent/Young Adults		3 sh
#ENGL315: Comp. Usage or ENGL357: Adv. Comp.	C	3 sh
#ENGL405: Grammars of English	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
MATH112: Intermediate Algebra	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced Level Courses

✓ Met in course requirements

**Lock Haven University**  
**Pre-K-Grade 8 & Professional Studies Department**  
**Elementary/Middle Level Education (English, Language Arts and Reading)**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
BIOL101 Basic Biology  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

THEA110: Theatre: An Orientation  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level  
Grades  
Wellness

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOG101 World Regional Geography  
ENGL405 Grammars of English  
PLA Course  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle  
Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management  
Strategies for Middle Level Learners  
ELML410 Science Methods for Elementary and Middle  
Level Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and  
Middle Level Grades (1 cr)  
ELML422 Language Arts for the Elementary and Middle  
Level Grades II (2 cr)  
ELML431 Mathematics Methods for Elementary and Middle  
Level Grades I (1 cr)  
ELML441 Social Studies Methods for Elementary and  
Middle Level Grades I (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
HIST 150 Am. Hist., HIST201 Hist. of US I, or HIST202 Hist. of US II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PSYC201 Educational Psychology

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

READ300 Intermediate Reading  
ELML321 Language Arts for the Elementary and Middle Level  
Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction  
SPEC309 Effective Instructional Strategies  
ENGL315 Composition Usage and Editing Techniques or  
ENGL357 Advanced Composition Rhetoric and Writing Instruction

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary  
and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary  
and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_

## Elementary Middle Level Education: English, Language Arts and Reading with Special Education –Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Inst. Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency: ELML493	
CT Competency: SPEC494	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS101: Earth Science or GEOS130: Prin. of Geo I (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC103: Adolescent Psychology (3 sh)	
HIST202: Hist. of US II (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Art/ Music/ Theatre (3 sh)	
ENGL110: Introduction to Literature (3 sh)	
THEA110: Theatre: An Orientation	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency: ELML493	
EL Competency: SPEC494	

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML210: Learning Theory	3 sh
ELML250: Assessment and Differentiation	3 sh
#ELML321: LA for the Elem/Mid. Level Learn.	3 sh
#ELML322: Math for the Elem/Mid. Level Learn.	3 sh
#ELML431: Math Methods I	1 sh
#ELML410: Science Methods I	1 sh
#ELML422: Language Arts II	2 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1 sh
SPEC215: High Incid. Disability Support	3 sh
SPEC212: Low Incid. Disability Support	3 sh
#SPEC300: Comm. Disorders/Assistive Tech.	3 sh
#SPEC338: Positive Behavior Support	3 sh
#SPEC345: Lit. Skills for Students w/ Dis.	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441:Strat.for High Incid. Dis.	3 sh
#SPEC440: Strat. for Low Incid. Dis.	3 sh
#SPEC425: Law /Collaborative Practices	3 sh
<b>Cognate Courses</b>	
#READ300: Intermediate Reading	3 sh
ENGL235: Lit. for Adolescent /Young Adults	3 sh
#ENGL315: Comp Usage or #ENGL357: Advanced Composition	3 sh
#ENGL405: Grammars of English	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
#ELML330: Language Acquisition	3 sh
SPEC204: Cog. Develop. of Div. Learners or SPEC105: Found. of Special Ed	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
<i>#Advanced Level Courses</i>	

**Elementary/Middle Level Education (English, Language Arts and Reading) / Special Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
MATH 102 Number Systems  
HIST101 World History 1 or HIST102 World History 2  
BIO 101 Basic Biology  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students  
Wellness  
 Credit Total:   16  

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
HIST202 Hist. of US II  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades  
 Credit Total:   17  

**Fall Sophomore (example)**

THEA 110 Theatre: An Orientation  
MATH 112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
Art/Music/Theater/Dance (World)

Credit Total:   15  

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
POLI 107 World Politics  
READ 300 Intermediate Reading

Credit Total:   18  

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total:   6  

**Fall Junior (example)**

GEOG 260 World Regional Geography  
SPEC212 Low Incidence Disability Support  
ENGL405 Grammars of English  
ENGL315 Composition Usage and Editing Techniques or  
ENGL357 Advanced Composition Rhetoric and Writing Instructions

Credit Total:   15  

**Spring Junior (example)**

ELML321 Language Arts for the Elementary and Middle Level  
ELML330 Language Acquisition Theory and Wtg. Instruction or  
SPEC202 Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total:   18  

**Summer**

SPEC338 Positive Behavior Support  
SPEC345 Literacy Skills for Students with Disabilities  
 Total Credits:   6  

**Fall Senior (example)**

ELML335 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML410 Science Methods for Elementary and Middle Level Grades I  
ELML422 Language Arts for Elementary and Middle Grades II  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 LA Methods for Elementary and Middle Level Grades (1 cr)  
 Credit Total:   15  

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
SPEC494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total:   12





**Elementary/Middle Level Education (Science-Biology/English, Language Arts and Reading)****Suggested Course Sequence****Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
BIOL106 Principles of Biology I  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

POLI107 World Politics  
HIST150 AM. Hist., HIST201 Hist. of US 1, or HIST201 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci. Tech Wellness  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
BIOL309 Ecology  
PSYC201 Educational Psychology  
PLA Course  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML412 Science Methods for Elementary and Middle Level Grades II (2 cr)  
ELML420 Language Arts Methods for Elementary and Middle Level Grades I (1 cr)  
ELML421 Language Arts Methods for Elementary and Middle Level Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I (1 cr)  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL107 Principles of Biology II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science of GEOS130 Principles of Geology I  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH112 Intermediate Algebra  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML321 Language Arts for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
READ300 Intermediate Reading  
SPEC309 Effective Instructional Strategies

Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_

## Elementary Middle Level Education: English, Language Arts and Reading/Biology with Special Education – Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency:	
WC Competency:	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effect. Instructional Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency:	
CT Competency:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology I (3 sh)	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
HIST202: Hist. of US II (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency:	
EL Competency:	

<b>*Certification Students Only:</b>	
#SPEC338: Positive Behavior Support	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem/ Mid. Level Learn.	3 sh
#ELML321: LA for the Elem/ Mid. Level Learn.	3 sh
#ELML322: Math for Elem/ Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML421: Language Arts for Elem/Mid. Grades I	2 sh
#ELML431: Mathematics Methods I	1 sh
#ELML412: Science Methods II	2 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incd. Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
BIOL107: Principles of Biology 2	3 sh
#BIOL309: Ecology	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry.	3 sh
#READ300: Intermediate Reading	3 sh
ENGL235: Lit. for Adolescent and Young Adults	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed	3 sh
SPEC215: High Incidence Disability Support	3 sh
ELML210: Learning Theory	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Science-Biology/ English, Language Arts and Reading) / Special Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST1101 World History 1 or HIST102 World History 2  
MATH102 Number Systems  
BIOL106 Principles of Biology I  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)  
Wellness

Credit Total:   16  

**Fall Sophomore (example)**

Art/ Music/ Theater/ Dance  
POLI107 World Politics  
HIST202 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total:   15  

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology

Credit Total:   6  

**Fall Junior (example)**

GEOG260 World Regional Geography  
BIOL309: Ecology  
SPEC212 Low Incidence Disability Support  
ELML320 Science for the Elementary and Middle level Learner  
ELML321 Language Arts for the Elementary and Middle Level Learner

Credit Total:   15  

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities

Total Credits:   6  

**Fall Senior Year (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML421 Language Arts Methods for the Elementary and Middle Grades I  
ELML441 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Total Credits:   15  

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
BIOL107 Principles of Biology 2  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total:   17  

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH112 Intermediate Algebra  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total:   18  

**Spring Junior (example)**

READ300 Intermediate Reading  
ELML330 Language Acquisition Theory and Wtg. Instruction or  
SPEC202 Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total:   18  

**Spring Senior Year (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Total Credits:   12

## Elementary Middle Level Education: English, Language Arts, Reading/Geology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>	<b>First Year Student Seminar</b>		<b>1 sh</b>
<b>Written Communication</b>		<b>3 sh</b>	ELML119: Freshman Seminar	C	1 sh
ENGL100: Composition (3 sh)	C				
WC Competency: ELML493		✓			
WC Competency: ELML494		✓			
<b>Oral Communication</b>		<b>3 sh</b>	<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C		ELML200: Introduction to LA Methods	C	2 sh
			ELML250: Assessment and Differentiation	C	3 sh
			#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
			#ELML321: Language Arts for Elem/Mid. Level Learn.	C	3 sh
			#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>	#ELML330: Language Acquisition	C	3 sh
MATH102: Number Systems (3 sh)	C		#ELML405: Interven. /Classroom Mgt.	C	3 sh
			#ELML412: Science Methods II	C	2 sh
<b>Critical Thinking</b>			#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
CT Competency: ELML493		✓	#ELML421: Language Arts I	C	1 sh
CT Competency: ELML494		✓	#ELML431: Mathematics Methods I	C	1 sh
			#ELML441: Social Studies Methods I	C	1 sh
<b>Knowledge and Inquiry</b>		<b>21 sh</b>	#ELML493: Student Teaching I	C	6 sh
<b>Natural Science Inquiry</b>		<b>6 sh</b>	#ELML494: Student Teaching II	C	6 sh
BIOL101: Basic Biology (3 sh)	C				
GEOS130: Principles of Geology I (3sh)	C		<b>Cognate Courses</b>		
			ELML210: Learning Theory	C	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>	#Choose 1 Advanced Level Geology Course: GEOS131, GEOS213, GEOS230, GEOS301, GEOS305, or GEOS315	C	3 sh
PSYC103: Adolescent Development (3 sh)	C		GEOS215: Environmental Geology	C	3 sh
HIST150: American History (3 sh)	C		#READ300: Intermediate Reading	C	3 sh
			ENGL235: Lit. for Adolescent/Young Adults	C	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>	MATH112: Intermediate Algebra	C	3 sh
ENGL110: Introduction to Literature (3 sh)	C		MATH115: Statistics and Geometry	C	3 sh
Art/Music/Theater (3 sh)	C		PSYC201: Educational Psychology	C	3 sh
PLA Course (3 sh)	C		SPEC204: Cognitive Development of Diverse Learners	C	3 sh
			#SPEC309: Effective Instructional Strategies	C	3 sh
<b>Personal and Social Responsibility</b>		<b>12 sh</b>	CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>	PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh
HIST101: World History I or HIST102: World History II (3 sh)	C				
POLI107: World Politics (3 sh)	C				
GEOG101: World Regional Geography (3 sh)	C				
<b>Wellness</b>		<b>3 sh</b>			
Wellness (3 sh)	C				
<b>Experiential Learning</b>					
EL Competency: ELML493		✓			
EL Competency: ELML494		✓			
<b>Elective</b>	C	<b>3 sh</b>			

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Track**  
**English, Language Arts, and Reading/Geology Concentration**

**Fall Freshman (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_|6\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL101 Basic Biology  
MATH115 Statistics and Geometry  
PSYC103 Adolescent Psychology  
Wellness  
ELML200 Introduction to Language Arts Methods for  
Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_|17\_\_\_\_\_

**Fall Sophomore (example)**

Art/Music/Theater  
POLI107 World Politics  
GEOS215 Environmental Geology  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135  
Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Spring Sophomore (example)**

MATH112 Intermediate Algebra  
HIST150 American History  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_|15\_\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
GEOS Advanced Level Course Choice (see list)  
PSYC201 Educational Psychology  
PLA Course  
Elective

Credit Total: \_\_\_\_\_|15\_\_\_\_\_

**Spring Junior (example)**

READ300 Intermediate Reading  
ELML320 Science for the Elementary and Middle Level  
Learners  
ELML321 Language Arts for the Elementary and Middle Level  
Learners  
ELML330 Language Acquisition Theory and Writing  
Instruction  
SPEC309 Effective Instructional Strategies

Credit Total: \_\_\_\_\_|15\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level  
Learners  
ELML412 Science Methods for Elementary and Middle Level Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and Middle Level Grades I (1  
cr)  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I (1  
cr)  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1  
cr)

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum:  
Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum:  
Elementary and Middle Level II

Credit Total: \_\_\_\_|12\_\_\_\_\_

**Elementary Middle Level Education: English/Language Arts and Reading/Geology with Special Education –  
Bachelor of Science in Education**

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Literary Strategies	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	
<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS130: Principles of Geology I (3 sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC103: Adolescent Psychology (3 sh)	
HIST202: Hist. of the US II (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EL Competency	
<b>*Certification Students Only:</b>	
#SPEC338: Positive Behavior Support	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh
<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem/Mid. Level Learn.	3 sh
#ELML321: LA for the Elem/Mid. Level Learn.	3 sh
#ELML322: Math for the Elem/Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML421: Language Arts for Elem and Middle Grades I	2 sh
#ELML431: Math Methods I	1 sh
#ELML412: Science Methods II	2 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strategies for Teaching High Incidence Disabilities	3 sh
#SPEC440: Strategies for Teaching Low Incidence Disabilities	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
GEOS215: Environmental Geology	3 sh
ELML210: Learning Theory	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
#Choose 1 Advanced Level Geology Course: GEOS131, GEOS213, GEOS215, GEOS230, GEOS301, GEOS305, or GEOS315	3 sh
#READ300: Intermediate Reading	3 sh
ENGL235: Lit. for Adolescent and Young Adults	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed.	3 sh
SPEC215: High Incidence Disability Support	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Science-Geology/ English/Language Arts and Reading) / Special Education  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History 1 or HIST102 World History 2  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
Wellness  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)  
Art/ Music/ Theater/ Dance

Credit Total: \_\_\_\_\_ 13 \_\_\_\_\_

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Fall Sophomore (example)**

POLI 107 World Politics  
GEOS215 Environmental Geology  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
PLA Elective

**Spring Sophomore (example)**

ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
READ 300 Intermediate Reading  
ELML320 Science for the Elementary and Middle level Learner  
MATH112 Intermediate Algebra  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
Geology: Advanced Course Choice  
SPEC212 Low Incidence Disability Support  
CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
BIOL101 Basic Biology

**Spring Junior (example)**

ELML321 Language Arts for the Elementary and Middle Level Learner  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML421 Language Arts Methods for the Elementary and Middle Grades I  
ELML441 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_





**Elementary Middle Level Education: Track  
Geology Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
HIST150 Am. Hist., HIST201 Hist. of US 1, or HIST201 Hist. of US II  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_16\_\_\_\_\_

**Fall Sophomore (example)**

GEOS Advanced Level Course Choice (see list)  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135  
 Meteorology, or SCI110 Sci Tech  
Wellness  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Junior (example)**

Art/ Music/ Theater  
GEOG101 World Regional Geography  
GEOS Advanced Level Course Choice (see list)  
POLI107 World Politics  
PLA Course

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for  
 Middle Level Learners  
ELML414 Science Methods for Elementary and Middle Level Grades  
 III  
ELML420 Language Arts Methods for Elementary and Middle Level  
 Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and Middle Level  
 Grades I (1 cr)  
ELML441 Social Studies Methods for Elementary and Middle Level  
 Grades I (1 cr)

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL101 Basic Biology  
MATH115 Statistics and Geometry  
GEOS Introductory Level Course Choice (see list)  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for  
 Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic  
 Chem.  
BIOL102 Environmental Science  
GEOS Advanced Level Course Choice (see list)  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level  
 Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology  
Elective

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum:  
 Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum:  
 Elementary and Middle Level II

Credit Total: \_\_\_\_\_12\_\_\_\_\_



**Elementary/Middle Level Education (Science-Geology) / Special Education**  
**Suggested Course Sequence**

<b>Fall Freshman (example)</b>	<b>Spring Freshman (example)</b>
<u>ENGL100 Composition</u>	<u>ENGL110 Introduction to Literature</u>
<u>MATH102 Number Systems</u>	<u>BIO102 Environmental Science</u>
<u>HIST101 World History 1 or HIST102 World History 2</u>	<u>MATH115 Statistics and Geometry</u>
<u>GEOS130 Principles of Geology 1</u>	<u>GEOS Introductory Level course choice</u>
<u>ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)</u>	<u>PSYC103 Adolescent Psychology</u>
	<u>ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)</u>

Credit Total: \_\_\_\_ 13 \_\_\_\_

Credit Total: \_\_\_\_ 17 \_\_\_\_

**Fall Sophomore (example)**

GEOS-Advanced Level Course Choice  
HIST202 Hist. of US II.  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
Wellness

Credit Total: \_\_\_\_ 18 \_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chemistry in the Environment or CHEM105 Forensic Chem  
GEOS- Advanced Level Course Choice  
BIO102 Environmental Science  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total: \_\_\_\_ 18 \_\_\_\_

**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_ 6 \_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOS-Advanced Level Course Choice  
GEOG101 World Regional Geography  
Art./Music/Theater/Dance  
SPEC212 Low Incidence Disability Support

Credit Total: \_\_\_\_ 15 \_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learner  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_ 18 \_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_ 6 \_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner I  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML414 Science Methods for Elementary and Middle Level Grades III  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Credit Total: \_\_\_\_ 15 \_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: \_\_\_\_ 12 \_\_\_\_

## Elementary Middle Level Education: Mathematics - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>	<b>First Year Student Seminar</b>		<b>1 sh</b>
<b>Written Communication</b>		<b>3 sh</b>	ELML119: Freshman Seminar	C	1 sh
ENGL100: Composition (3 sh)	C				
WC Competency: ELML493		✓			
WC Competency: ELML494		✓			
<b>Oral Communication</b>		<b>3 sh</b>	<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C		ELML200: Introduction to LA Methods	C	2 sh
			ELML250: Assessment and Differentiation	C	3 sh
			#ELML322: Mathematics Elem/Mid. Level Learn.	C	3 sh
			#ELML330: Language Acquisition	C	3 sh
			#ELML405: Interven. /Classroom Mgt.	C	3 sh
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>	#ELML410: Science Methods I	C	1 sh
MATH102: Number Systems (3 sh)	C		#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
			#ELML433: Mathematics Methods III	C	3 sh
			#ELML441: Social Studies Methods I	C	1 sh
<b>Critical Thinking</b>			#ELML493: Student Teaching I	C	6 sh
CT Competency: ELML493		✓	#ELML494: Student Teaching II	C	6 sh
CT Competency: ELML494		✓			
<b>Knowledge and Inquiry</b>		<b>21 sh</b>	<b>Cognate Courses</b>		
<b>Natural Science Inquiry</b>		<b>6 sh</b>	ELML210: Learning Theory	C	3 sh
BIOL101: Basic Biology (3 sh)	C		MATH107: Basic Statistics I	C	3 sh
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	C		MATH112: Intermediate Algebra	C	3 sh
			MATH113: Pre-Calculus	C	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>	MATH115: Statistics and Geometry	C	3 sh
PSYC103: Adolescent Development (3 sh)	C				
HIST150: Am. Hist., HIST201: Hist. of US I, or HIST202: Hist. of US II (3 sh)	C		MATH141: Calculus I	C	3 sh
			#MATH205: Foundations of Mathematics	C	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>	#MATH302: Number Theory	C	3 sh
ENGL110: Introduction to Literature (3 sh)	C		#MATH307: Foundations of Geometry	C	3 sh
Art/Music/Theater (3 sh)	C		PSYC201: Educational Psychology	C	3 sh
PLA Course (3 sh)	C		SPEC204: Cognitive Development of Diverse Learners	C	3 sh
			#SPEC309: Effective Instructional Strategies	C	3 sh
			CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
<b>Personal and Social Responsibility</b>		<b>12 sh</b>	PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>			
HIST101: World History I or HIST102: World History II (3 sh)	C				
POLI107: World Politics (3 sh)	C				
GEOG101: World Regional Geography (3 sh)	C				
<b>Wellness</b>		<b>3 sh</b>			
Wellness (3 sh)	C				
<b>Experiential Learning</b>					
EL Competency: ELML493		✓			
EL Competency: ELML494		✓			
<b>Elective</b>	C	<b>3 sh</b>			

# Advanced Level Courses  
✓ Met in course requirements

**Elementary Middle Level Education Major  
Mathematics Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH112 Intermediate Algebra  
BIOL101 Basic Biology  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_16\_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH141 Calculus  
HIST150 Am. Hist., HIST201 Hist. of US 1, or HIST202 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOG101 World Regional Geography  
MATH302 Number Theory  
PSYC201 Educational Psychology  
PLA Course

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML410 Science Methods for Elementary and Middle Level Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and Middle Level Grades I (1 cr)  
ELML433 Mathematics Methods for Elementary and Middle Level Grades III  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1 cr)

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH113 Pre-Calculus  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH102 Number Systems  
MATH205 Foundations of Mathematics  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Junior (example)**

MATH307 Foundations of Geometry  
ELML330 Language Acquisition Theory and Wtg. Instruction  
SPEC309 Effective Instructional Strategies  
Wellness  
Elective

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_\_12\_\_\_\_\_

## Elementary Middle Level Education: Math with Special Education: Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Inst. Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
HIST202 Hist. of US II (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History 1 or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EL Competency	

<b>*Certification Students Only:</b>	
<b>#SPEC338: Positive Behavior Support</b>	<b>3 sh</b>
*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.	

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML322: Math for Elem/Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML433: Mathematics Methods III	3 sh
#ELML410: Science Methods I	1 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven./ Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Dis.	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incid. Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incid. Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
MATH107: Basic Statistics	3 sh
MATH112: Intermediate Algebra	3 sh
MATH113: Pre-calculus	3 sh
MATH115: Statistics and Geometry	3 sh
#MATH141: Calculus I	3 sh
#MATH205: Foundations of Mathematics	3 sh
#MATH302: Number Theory	3 sh
#MATH307: Foundations of Geometry	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC204: Cognitive Dev of Diverse Learners or SPEC105: Foundations of Special Ed	3 sh
SPEC215: High Incidence Dis Support	3 sh
ELML210: Learning Theory	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, /PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
# Advanced Level Courses	

**Elementary/Middle Level Education (Math) / Special Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
MATH112 Intermediate Algebra  
HIST101 or 102 World History 1 or 2  
BIOL101 Basic Biology  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)

Credit Total: \_\_\_\_13\_\_\_\_

**Fall Sophomore (example)**

MATH141 Calculus  
HIST202 Hist. of US I  
MATH107 Basic Statistics  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
Wellness

Credit Total: \_\_\_\_18\_\_\_\_

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology

Credit Total: \_\_\_\_6\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
MATH302 Number Theory  
GEOG101 World Regional Geography  
SPEC212 Low Incidence Disability Support Art/ Music/ Theater/ Dance (Gen. Ed.)

Credit Total: \_\_\_\_15\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities

Credit Total: \_\_\_\_6\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML433 Mathematics Methods for Elementary and Middle Level Grades III  
ELML410 Science Methods for Elementary and Middle Level Grades I  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Credit Total: \_\_\_\_15\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH113 Precalculus  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_17\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chemistry in the Environment or CHEM105 Forensic Chem.  
MATH102 Number Systems  
MATH205 Foundations of Mathematics  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total: \_\_18\_\_\_\_

**Spring Junior (example)**

MATH307 Foundations of Geometry  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_18\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
SPEC494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_12\_\_\_\_



## Elementary Middle Level Education: Math/Biology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL106: Principles of Biology I (3 sh)	C	
GEOS101: Earth Sci. or GEOS130: Prin. of Geology I (3sh)	C	
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
HIST150: Am. Hist., HIST201: Hist. of US I, or HIST201: Hist. of US II (3 sh)	C	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
<b>Wellness</b>		<b>3 sh</b>
Wellness (3 sh)	C	
<b>Experiential Learning</b>		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	<b>3 sh</b>

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML412: Science Methods II	C	2sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML432: Mathematics Methods II	C	2 sh
#ELML441: Social Studies Methods II	C	1 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
ELML210: Learning Theory	C	3 sh
BIOL107: Principles of Biology II	C	3 sh
#BIOL309: Ecology	C	3 sh
MATH107: Basic Statistics	C	3 sh
MATH113: Pre-Calculus	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
MATH141: Calculus I	C	3 sh
#MATH205: Foundations of Mathematics	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced  
Level Courses  
✓ Met in course  
requirements

**Elementary Middle Level Education Track  
Math/Biology Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
BIOL106 Principles of Biology I  
Wellness  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL107 Principles of Biology II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Principles of Geology I  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Pre-Calculus  
HIST150 AM. Hist., HIST201 Hist. of US 1, or HIST201 Hist. of  
US II  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level  
Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH141 Calculus  
Art/Music/ Theater  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

POL107 World Politics  
GEOG101 World Regional Geography  
MATH205 Foundations of Mathematics  
BIOL309 Ecology  
PLA Course

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level  
Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management  
Strategies for Middle Level Learners  
ELML412 Science Methods for Elementary and Middle Level  
Grades II (2 cr)  
ELML420 Language Arts Methods for Elementary and Middle  
Level Grades I (1 cr)  
ELML432 Mathematics Methods for Elementary and Middle  
Level Grades I (2 cr)  
ELML441 Social Studies Methods for Elementary and Middle  
Level Grades I (1cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary  
and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary  
and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_

## Elementary Middle Level Education: Math/Biology with Special Education – Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology 1 (3 sh)	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
HIST202: Hist. of US II (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EL Competency	
<b>*Certification Students Only:</b>	
<b>#SPEC338: Positive Behavior Support</b>	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem/Mid. Level Learn.	3 sh
#ELML322: Math for the Elem /Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML432: Mathematics Methods II	2 sh
#ELML412: Science Methods II	2 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Start. for Teaching High Incidence Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
BIOL107: Principles of Biology 2	3 sh
#BIOL309: Ecology	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
MATH113: Pre-calculus	3 sh
#MATH141: Calculus	3 sh
#MATH205: Foundations of Mathematics)	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC215: High Incidence Disability Support	3 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed.	3 sh
ELML210: Learning Theory	3 sh
MATH107: Basic Statics	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Science-Biology/ Math) / Special Education****Suggested Course Sequence****Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History 1 or HIST102 World History 2  
MATH102 Number Systems  
BIOL106 Principles of Biology 1  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)  
Wellness

Credit Total: 16**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Precalculus  
HIST202 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: 15**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology

Credit Total: 6**Fall Junior (example)**

GEOG101 World Regional Geography  
BIOL309 Ecology  
POLI 107 World Politics  
SPEC212 Low Incidence Disability Support  
MATH205 Foundations of Math

Credit Total: 15**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities

Credit Total: 6**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML432 Mathematics Methods for Elementary and Middle Level Grades II  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML441 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Credit Total: 15**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL107 Principles of Biology 2  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: 17**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH141 Calculus  
Art/ Music/ Theater/ Dance  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total: 18**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: 18**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: 12

## Elementary Middle Level Education: Math/English, Language Arts, Reading - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL101: Basic Biology (3 sh)		
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)		
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
HIST150: American Hist., HIST201: Hist. of US I, or HIST202: Hist. of US II (3 sh)	C	
Philosophical, Literary, and Aesthetic Inquiry		9 sh
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
Personal and Social Responsibility		12 sh
Global Awareness and Citizenship		9 sh
HIST101: World History I or HIST102: World History II (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
Wellness		3 sh
Wellness (3 sh)	C	
Experiential Learning		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	<b>3 sh</b>

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML322: Mathematics Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML410: Science Methods I	C	1 sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML421: Language Arts 1	C	1 sh
#ELML432: Mathematics Methods II	C	2 sh
#ELML441: Social Studies Methods I	C	1 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
ELML210: Learning Theory	C	3 sh
#ELML321: LA for the Elem/Mid. Level Learn	C	3 sh
#READ300: Intermediate Reading	C	3 sh
ENGL235: Lit. for Adolescent/Young Adults	C	3 sh
MATH107: Basic Statistics I	C	3 sh
MATH113: Pre-Calculus	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
MATH141: Calculus I	C	3 sh
#MATH205: Foundations of Mathematics	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Track**  
**Math/English, Language Arts, and Reading Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
BIOL101 Basic Biology  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Pre- Calculus  
HIST150 Am. Hist., HIST201 Hist. of US 1, or HIST202 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOG101 World Regional Geography  
MATH205 Foundations of Math  
PLA Course  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML410 Science Methods for Elementary and Middle Level Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)  
ELML421 Language Arts Methods for Elementary and Middle Level Grades (1 cr)  
ELML432 Mathematics Methods for Elementary and Middle Level Grades II (2 cr)  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
Wellness  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH141 Calculus  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

READ300 intermediate Reading  
ELML321 Language Arts for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_

**Elementary Middle Level Education: Math/English, Language Arts and Reading with Special Education –  
Bachelor of Science in Education**

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instr. Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
HIST202: Hist. of US II (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Art/ Music/ Theatre (3 sh)	
ENGL110: Introduction to Literature (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EI Competency	

<b>*Certification Students Only:</b>	
<b>#SPEC338: Positive Behavior Support</b>	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML322: Math for the Elem/Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML421: Language Arts Methods I	2 sh
#ELML432: Mathematics Methods II	2 sh
#ELML410: Science Methods I	1 sh
#ELML441: Social Studies Methods I	1 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Literacy Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incid. Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
#ELML321 LA for the Elem./ Mid. Level Learn.	3 sh
MATH107: Basic Statistics	3 sh
MATH113: Pre-calculus	3 sh
#MATH115: Statistics and Geometry	3 sh
MATH141: Calculus I	3 sh
#MATH205: Foundations of Mathematics	3 sh
#READ300: Intermediate Reading	3 sh
ENGL235: Lit for Adolescents and Young Adults	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC204: Cognitive Dev of Diverse Learners or SPEC105: Foundations of Special Ed.	3 sh
SPEC215: High Incidence Disability Support	3 sh
ELML210: Learning Theory	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry.	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Math) / Language Arts/Special Education  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST1101 or HIST102 World History 1 or 2  
MATH102 Number Systems  
BIOL101 Basic Biology  
Art/ Music/ Theater/ Dance (Gen. Ed.)  
ELML119 Freshman Seminar for Elementary and Middle Level  
Education Students  
 Credit Total: \_\_\_\_16\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades  
Wellness  
 Credit Total: \_\_\_\_17\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Precalculus  
HIST202 Hist. of US II  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135  
Meteorology, or/ SCI 110: Sci. Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
 Credit Total: \_\_15\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem, in the Environment or CHEM105 Forensic Chem.  
MATH141 Calculus  
ENGL235 Literature for Adolescent and Young Adults  
SPEC204 Cognitive Development of Diverse Learners or SPEC105  
Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
READ300 Intermediate Reading  
 Credit Total: \_18\_\_\_\_

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_6\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
MATH205 Foundations of Math  
SPEC212 Low Incidence Disability Support  
POLI107 World Politics  
PLA Elective  
 Credit Total: \_\_\_\_15\_\_\_\_

**Spring Junior (example)**

ELML321 Language Arts for the Elementary and Middle Level  
Learner  
ELML330 Language Acquisition Theory and Wtg. Instruction or  
SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices  
 Credit Total: \_\_\_\_18\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Total Credits: \_\_\_\_6\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level  
Learner  
ELML432 Mathematics Methods for Elementary and Middle Level  
Grades II  
ELML410 Science Methods for Elementary and Middle Level  
Grades I  
ELML421 Language Arts Methods for the Elementary and Middle  
Grades II  
ELML441 Social Studies Methods for Elementary and Middle Level  
Grades I  
ELML405 Intervention and Classroom Management Strategies for  
Middle Level Learners  
 Credit Total: \_\_\_\_15\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum:  
Elementary and Middle Level I  
SPEC494 Student Teaching and Professional Practicum: Elementary  
and Middle Level II  
 Credit Total: \_\_\_\_12\_\_\_\_



## Elementary Middle Level Education: Math/Geology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>	<b>First Year Student Seminar</b>		<b>1 sh</b>
<b>Written Communication</b>		<b>3 sh</b>	ELML119: Freshman Seminar	C	1 sh
ENGL100: Composition (3 sh)	C				
WC Competency: ELML493		✓			
WC Competency: ELML494		✓			
<b>Oral Communication</b>		<b>3 sh</b>	<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C		ELML200: Introduction to LA Methods	C	2 sh
			ELML250: Assessment and Differentiation	C	3 sh
			#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
			#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
			#ELML330: Language Acquisition	C	3 sh
			#ELML405: Interven. /Classroom Mgt.	C	3 sh
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>	#ELML412: Science Methods II	C	2 sh
MATH102: Number Systems (3 sh)	C		#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
			#ELML432: Mathematics Methods II	C	2 sh
			#ELML441: Social Studies Methods I	C	1 sh
<b>Critical Thinking</b>			#ELML493: Student Teaching I	C	6 sh
CT Competency: ELML493		✓	#ELML494: Student Teaching II	C	6 sh
CT Competency: ELML494		✓			
<b>Knowledge and Inquiry</b>		<b>21 sh</b>	<b>Cognate Courses</b>		
<b>Natural Science Inquiry</b>		<b>6 sh</b>	ELML210: Learning Theory	C	3 sh
BIOL101: Basic Biology (3 sh)	C		#Choose 1 Advanced Level Geology Course: GEOS131, GEOS213, GEOS230, GEOS301, GEOS305, or GEOS315	C	3 sh
GEOS130: Principles of Geology I (3sh)	C		GEOS215: Environmental Geology	C	3 sh
			MATH107: Basic Statistics I	C	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>	MATH113: Pre-Calculus	C	3 sh
PSYC103: Adolescent Development (3 sh)	C				
HIST150: American History, HIST201: Hist. of US 1, or HIST202: History of US II (3 sh)	C		MATH115: Statistics and Geometry	C	3 sh
			MATH141: Calculus I	C	3 sh
			#MATH205: Foundations of Mathematics	C	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>	PSYC201: Educational Psychology	C	3 sh
ENGL110: Introduction to Literature (3 sh)	C		SPEC204: Cognitive Development of Diverse Learners	C	3 sh
Art/Music/Theater (3 sh)	C		#SPEC309: Effective Instructional Strategies	C	3 sh
PLA Course (3 sh)	C		CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
<b>Personal and Social Responsibility</b>		<b>12 sh</b>	PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>			
HIST101: World History I or HIST102: World History II (3 sh)	C				
POLI107: World Politics (3 sh)	C				
GEOG101: World Regional Geography (3 sh)	C				
<b>Wellness</b>		<b>3 sh</b>			
Wellness (3 sh)	C				
<b>Experiential Learning</b>					
EL Competency: ELML493		✓			
EL Competency: ELML494		✓			
<b>Elective</b>	C	<b>3 sh</b>			

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Track  
Math/Geology Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
GEOS Advanced Level Course Choice (see list)  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Pre-Calculus  
GEOS215 Environmental Geology  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

POLI107 World Politics  
GEOG101 World Regional Geography  
MATH205 Foundations of Mathematics  
PLA Course  
Art/Music/ Theater

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML412 Science Methods for Elementary and Middle Level Grades II (2 cr)  
ELML420 Language Arts Methods for Elementary and Middle Level Grades I (1 cr)  
ELML432 Mathematics Methods for Elementary and Middle Level Grades II (2 cr)  
ELML441 Social Studies Methods for Elementary and Middle Level Grades I (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL101 Basic Biology  
MATH115 Statistics and Geometry  
PSYC103 Adolescent Psychology  
Wellness  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
MATH112 Intermediate Algebra  
HIST150 Am. History, HIST201 Hist. of US I or HIST202 Hist. of US II  
MATH141 Calculus  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_



**Elementary/Middle Level Education (Science-Geology and Math) / Special Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History 1 or HIST102 World History 2  
MATH102 Number Systems  
GEOS130 Principles of Geology  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)

Credit Total: \_\_\_\_\_13\_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
Geology- Advanced Level Course Choice  
GEOS215 Environmental Geology  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
MATH113 Precalculus

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_\_6\_\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
Art/ Music/ Theater/ Dance (Gen. Ed.)  
POLI 107 World Politics  
SPEC212 Low Incidence Disability Support  
MATH205 Foundations of Math

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_\_6\_\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML432 Mathematics Methods for Elementary and Middle Level Grades II  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML441 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL102 Environmental Science  
MATH115 Statistics and Geometry  
Wellness  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
HIST202 Hist. of US II  
MATH141 Calculus  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
PLA Elective

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: \_\_\_\_\_12\_\_\_\_\_

## Elementary Middle Level Education: Math/Social Studies - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>	<b>First Year Student Seminar</b>		<b>1 sh</b>
<b>Written Communication</b>		<b>3 sh</b>	ELML119: Freshman Seminar	C	1 sh
ENGL100: Composition (3 sh)	C				
WC Competency: ELML493		✓			
WC Competency: ELML494		✓			
<b>Oral Communication</b>		<b>3 sh</b>	<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C		ELML200: Introduction to LA Methods	C	2 sh
			ELML250: Assessment and Differentiation	C	3 sh
			#ELML322: Mathematics Elem/Mid. Level Learn.	C	3 sh
			#ELML323: SS for the Elem/Mid. Level Learn.	C	3 sh
			#ELML330: Language Acquisition	C	3 sh
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>	#ELML405: Interven. /Classroom Mgt.	C	3 sh
MATH102: Number Systems (3 sh)	C		#ELML410: Science Methods I	C	1 sh
			#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
			#ELML432: Mathematics Methods II	C	2 sh
<b>Critical Thinking</b>			#ELML442: Social Studies Methods II	C	2 sh
CT Competency: ELML493		✓	#ELML493: Student Teaching I	C	6 sh
CT Competency: ELML494		✓	#ELML494: Student Teaching II	C	6 sh
<b>Knowledge and Inquiry</b>		<b>21 sh</b>	<b>Cognate Courses</b>		
<b>Natural Science Inquiry</b>		<b>6 sh</b>	ELML210: Learning Theory	C	3 sh
BIOL101: Basic Biology (3 sh)	C				
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	C		MATH107: Basic Statistics I	C	3 sh
			MATH113: Pre-Calculus	C	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>	MATH115: Statistics and Geometry	C	3 sh
PSYC103: Adolescent Development (3 sh)	C		MATH141: Calculus	C	3 sh
ECON102: Macroeconomics or ECON103: Microeconomics	C				
			#MATH205: Foundations of Mathematics	C	3 sh
			#HIST300/400: Any 300/400 Level Am. Hist, Course	C	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>	#HIST300/400: Any 300/400 Level Non-Western Hist, Course	C	3 sh
ENGL110: Introduction to Literature (3 sh)	C		PSYC201: Educational Psychology	C	3 sh
Art/Music/Theater (3 sh)	C		SPEC204: Cognitive Development of Diverse Learners	C	3 sh
PLA Course (3 sh)	C		#SPEC309: Effective Instructional Strategies	C	3 sh
			CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
			PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh
<b>Personal and Social Responsibility</b>		<b>12 sh</b>			
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>	<i># Advanced Level Courses</i>		
HIST111: Global History I or HIST112: Global History II (3 sh)	C		✓ <i>Met in course requirements</i>		
POLI107: World Politics (3 sh)	C				
GEOG101: World Regional Geography (3 sh)	C				
<b>Wellness</b>		<b>3 sh</b>			
Wellness (3 sh)	C				
<b>Experiential Learning</b>					
EL Competency: ELML493		✓			
EL Competency: ELML494		✓			
<b>Elective</b>	C	<b>3 sh</b>			

**Elementary Middle Level Education Track  
Math/Social Studies Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST111 Global History I or HIST112 Global History II  
MATH102 Number Systems  
BIOL101 Basic Biology  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_16\_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Pre- Calculus  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level  
Grades  
Wellness

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Junior (example)**

GEOG101 World Regional Geography  
HIST300/400 American History  
HIST300/400 Non-Western History  
MATH205 Foundations of Math  
PLA Course

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level  
Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies  
for Middle Level Learners  
ELML410 Science Methods for Elementary and Middle Level  
Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and Middle  
Level Grades I (1 cr)  
ELML432 Mathematics Methods for Elementary and Middle  
Level Grades II (2 cr)  
ELML442 Social Studies Methods for Elementary and Middle  
Level Grades II (2 cr)

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
POLI107 World Politics  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem  
ECON102 Micro Economics or ECON103 Macro Economics.  
MATH141 Calculus  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level  
Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology  
Elective

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary  
and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary  
and Middle Level II

Credit Total: \_\_\_\_\_12\_\_\_\_\_

**Elementary Middle Level Education: Math/Social Studies with Special Education – Bachelor of Science in Education**

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	
<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS101/130: Earth Science/ Prin of Geo (3 sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
ECON102: Micro Economics or ECON103: Macro Economics (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101 World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EL Competency	

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML330: Language Acquisition	3 sh
#ELML322: Math for the Elem/Mid. Level Learn.	3 sh
#ELML323: SS. for the Elem/Mid. Level Learn.	3 sh
#ELML432: Mathematics Methods II	2 sh
#ELML410: Science Methods	1 sh
#ELML442: Social Studies Methods II	2 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Dis.	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incid. Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incid Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh

<b>Cognate Courses</b>	
MATH107: Basic Statistics	3 sh
MATH113: Pre-calculus	3 sh
MATH115: Statistics and Geometry	3 sh
#MATH141: Calculus	3 sh
#MATH205: Foundations of Mathematics	3 sh
HIST300/ 400: Any 300/ 400 level Am Hist Course	3 sh
#HIST300/ 400: Any 300/ 400 level on Western History	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
ELML210: Learning Theory	3 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed.	3 sh
SPEC215: High Incidence Disability Support	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry.	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh

<i># Advanced Level Courses</i>	

<b>*Certification Students Only:</b>	
#SPEC338: Positive Behavior Support	<b>3 sh</b>

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Math and Social Studies) / Special Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 Global History I or HIST102 Global History II  
MATH102 Number Systems  
BIO101 Basic Biology  
Art/ Music/ Theater/ Dance (Gen. Ed.)  
ELML119 Freshman Seminar for Elementary and Middle Level  
Education Students (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level  
Grades (2 cr)

Wellness (Gen Ed)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Fall Sophomore (example)**

MATH107 Basic Statistics  
MATH113 Precalculus  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level  
Grades  
PLA Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem, in the Environment or CHEM105 Forensic Chem.  
ECON102 Micro Economics or ECON103 Macro Economics  
MATH141 Calculus  
POLI 107 World Politics  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of  
Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Junior (example)**

GEO101 World Regional Geography  
300/400 American History  
300/400 Non-Western History  
SPEC212 Low Incidence Disability Support  
MATH205 Foundations of Math

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202  
Cultural...Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level  
Learner  
ELML432 Mathematics Methods for Elementary and Middle  
Level Grades II  
ELML410 Science Methods for Elementary and Middle Level  
Grades I  
ELML442 Social Studies Methods for Elementary and Middle  
Level Grades II  
ELML405 Intervention and Classroom Management Strategies  
for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle  
Level Grades (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle  
Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: 12



## Elementary Middle Level Education: Social Studies - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	C	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	C	
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
HIST150: Am. Hist., HIST201: Hist. of US I, or HIST202: Hist. of US II (3 sh)	C	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
HIST111: Global History I (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
<b>Wellness</b>		<b>3 sh</b>
Wellness (3 sh)	C	
<b>Experiential Learning</b>		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	<b>3 sh</b>

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML210: Learning Theory	C	3 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML322: Mathematics Elem/Mid. Level Learn.	C	3 sh
#ELML323: Mathematics Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML410: Science Methods I	C	1 sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML431: Mathematics Methods I	C	1 sh
#ELML443: Social Studies Methods III	C	3 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
ECON102: Principles of Macroeconomics or ECON 103: Principles of Microeconomics	C	3 sh
HIST112: Global History II	C	3 sh
#HIST245: History of Pennsylvania	C	3 sh
#HIST300/400: Any 300/400 level Am. Hist. course	C	3 sh
#HIST300/400: Any 300/400 level Non-Western course	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
MATH112: Intermediate Algebra	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Major  
Social Studies Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST111 Global History I  
MATH102 Number Systems  
BIOL101 Basic Biology  
POLI107 World Politics  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_ 16 \_\_\_\_\_

**Fall Sophomore (example)**

HIST150 Am. Hist., HIST201 Hist. of US 1, or HIST202  
 Hist. of US II  
PSYC201 Educational Psychology  
PHYS101 Matter and Energy, PHYS110 How Things  
 Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle  
 Level Grades  
Wellness

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Junior (example)**

ECON101 Economics  
HIST300/400 American History  
HIST300/400 Non-Western History  
PLA Course  
Art/Music/ Theater

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle  
 Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management  
 Strategies for Middle Level Learners  
ELML410 Science Methods for Elementary and Middle  
 Level Grades I (1 cr)  
ELML420 Language Arts Methods for Elementary and  
 Middle Level Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and  
 Middle Level Grades I (1 cr)  
ELML443 Social Studies Methods for Elementary and  
 Middle Level Grades III

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
HIST112 Global History II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
 and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
GEOG101 World Regional Geography  
MATH112 Intermediate Algebra  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level  
 Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction  
SPEC309 Effective Instructional Strategies  
HIST245 History of Pennsylvania  
Elective

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary  
 and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary  
 and Middle Level II

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_



**Elementary/Middle Level Education (Social Studies) / Special Education****Suggested Course Sequence****Fall Freshman (example)**

ENGL100 Composition  
HIST111 Global History 1  
MATH102 Number Systems  
BIOL101 Basic Biology  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)

Credit Total: \_\_\_\_\_13\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
HIST112 Global History 2  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Fall Sophomore (example)**

POLI107 World Politics  
HIST202 Hist. of US II Wellness  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
PLA Elective

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
HIST245 History of Pennsylvania  
GEOG101 World Regional Geography  
MATH112 Intermediate Algebra  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**Summer**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_\_6\_\_\_\_\_

**Fall Junior (example)**

ECON102 MicroEconomics or ECON103 MacroEconomics  
300/400 American History  
300/400 Non-Western History  
Art./Music/Theater/Dance  
SPEC212 Low Incidence Disability Support

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_\_18\_\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_\_6\_\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML410 Science Methods for Elementary and Middle Level Grades I  
ELML443 Social Studies Methods for Elementary and Middle Level Grades III  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)  
 Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: 12

## Elementary Middle Level Education: Social Studies/Biology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C	
WC Competency: ELML493		✓
WC Competency: ELML494		✓
<b>Oral Communication</b>		<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C	
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>
MATH102: Number Systems (3 sh)	C	
<b>Critical Thinking</b>		
CT Competency: ELML493		✓
CT Competency: ELML494		✓
<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		<b>6 sh</b>
BIOL106: Principles of Biology I (3 sh)	C	
GEOS101: Earth Sci. or GEOS130: Prin. of Geology I (3sh)	C	
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>
PSYC103: Adolescent Development (3 sh)	C	
ECON102: Macroeconomics or ECON103: Microeconomics	C	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	C	
Art/Music/Theater (3 sh)	C	
PLA Course (3 sh)	C	
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
HIST111: Global History I or HIST112: Global History II (3 sh)	C	
POLI107: World Politics (3 sh)	C	
GEOG101: World Regional Geography (3 sh)	C	
<b>Wellness</b>		<b>3 sh</b>
Wellness (3 sh)	C	
<b>Experiential Learning</b>		
EL Competency: ELML493		✓
EL Competency: ELML494		✓
<b>Elective</b>	C	<b>3 sh</b>

<b>First Year Student Seminar</b>		<b>1 sh</b>
ELML119: Freshman Seminar	C	1 sh
<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
ELML200: Introduction to LA Methods	C	2 sh
ELML250: Assessment and Differentiation	C	3 sh
#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
#ELML323: Social Studies for Elem/Mid. Level Learn.	C	3 sh
#ELML330: Language Acquisition	C	3 sh
#ELML405: Interven. /Classroom Mgt.	C	3 sh
#ELML412: Science Methods II	C	2sh
#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
#ELML431: Mathematics Methods I	C	1 sh
#ELML442: Social Studies Methods II	C	2 sh
#ELML493: Student Teaching I	C	6 sh
#ELML494: Student Teaching II	C	6 sh
<b>Cognate Courses</b>		
ELML210: Learning Theory	C	3 sh
BIOL107: Principles of Biology II	C	3 sh
#BIOL309: Ecology	C	3 sh
HIST300/400: Any 300/400 level American History course	C	3 sh
HIST300/400: Any 300/400 level Non-Western History course	C	3 sh
MATH112: Intermediate Algebra	C	3 sh
MATH115: Statistics and Geometry	C	3 sh
PSYC201: Educational Psychology	C	3 sh
SPEC204: Cognitive Development of Diverse Learners	C	3 sh
#SPEC309: Effective Instructional Strategies	C	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Track  
Social Studies/Biology Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST111 Global History I or HIST112 Global History II  
MATH102 Number Systems  
BIOL106 Principles of Biology I  
Art/Music/Theater  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_16\_\_\_\_\_

**Fall Sophomore (example)**

POLI107 World Politics  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
Wellness  
Elective  
ELML210 Learning Theory for Elementary And Middle  
Level Grades

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Junior (example)**

BIOL309 Ecology  
ECON102 Micro Economics or ECON103 Macro Economics  
HIST300/400 American History  
HIST300/400 Non-Western History  
PLA Course

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle  
Level Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management  
Strategies for Middle Level Learners  
ELML412 Science Methods for Elementary and Middle  
Level Grades II (2 cr)  
ELML420 Language Arts Methods for Elementary and  
Middle Level Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and  
Middle Level Grades I (1 cr)  
ELML442 Social Studies Methods for Elementary and  
Middle Level Grades II (2 cr)

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL107 Principles of Biology II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science of GEOS130 Principles of Geology I  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary  
and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_17\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
GEOG101 World Regional Geography  
MATH112 Intermediate Algebra  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Junior (example)**

ELML320 Science for the Elementary and Middle Level Learners  
ELML323 Social Studies for the Elementary and Middle Level  
Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
PSYC201 Educational Psychology

Credit Total: \_\_\_\_\_15\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary  
and Middle Level I  
ELML494 Student Teaching and Professional Practicum: Elementary  
and Middle Level II

Credit Total: \_\_\_\_\_12\_\_\_\_\_

## Elementary Middle Level Education: Social Studies/Biology with Special Education –Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principle of Biology 1 (3 sh)	
GEOS101: Earth Sci. or GEOS130: Prin. of Geo I (3sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
ECON102: Micro Economics or ECON103 Macro Economics (3 sh)	
PSYC103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101 World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	<b>12 sh</b>
EL Competency	
EL Competency	

<b>*Certification Students Only:</b>	
#SPEC338: Positive Behavior Support	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem/Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML323: S.S. for the Elem/Mid. Level Learn.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1 sh
#ELML322 Math for the Elem/Mid Level Learn.	3 sh
#ELML431: Mathematics Methods I	1 sh
#ELML412: Science Methods II	2 sh
#ELML442: Social Studies II	2 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Communication Disorders and Assistive Technology	3 sh
#SPEC345: Literacy Skills for Students with Disabilities	3 sh
SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incidence Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
BIOL107: Principles of Biology 2	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
HIST300/ 400: Any 300/400 level American History	3 sh
HIST300/ 400: Any 300/400 level Non Western	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
#BIOL309 Ecology	3 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed	3 sh
SPEC215: High Incidence Disability Support	3 sh
ELML210: Learning Theory	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

### **Elementary/Middle Level Education (Science-Biology/ Social Studies) / Special Education**

#### **Suggested Course Sequence**

#### **Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History 1 or HIST102 World History II  
MATH102 Number Systems  
Art/ Music/ Theater/ Dance  
POLI107 World Politics  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)  
 Credit Total: \_\_\_\_16\_\_\_\_

#### **Fall Sophomore (example)**

ECON102 Micro Economics or ECON103 Macro Economics Wellnes  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades  
PLA Elective

Credit Total: \_\_\_\_15\_\_\_\_

#### **SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology  
 Credit Total: \_\_\_\_6\_\_\_\_

#### **Fall Junior (example)**

300/400 American History  
300/400 Non-Western History  
SPEC212 Low Incidence Disability Support  
Biology: Advanced Course Choice  
BIOL309 Ecology

Credit Total: \_\_\_\_15\_\_\_\_

#### **Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities  
 Credit Total: \_\_\_\_6\_\_\_\_

#### **Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML442 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)  
 Credit Total: \_\_\_\_15\_\_\_\_

#### **Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIO107 Principles of Biology II  
MATH115 Statistics and Geometry  
GEOS101 Earth Science or GEOS130 Prin. of Geo  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)  
 Credit Total: \_\_\_\_17\_\_\_\_

#### **Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
ELML320 Science for the Elementary and Middle Level Learner  
GEOG101 World Regional Geography  
MATH112 Intermediate Algebra  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom  
 Credit Total: \_\_\_\_18\_\_\_\_

#### **Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices  
 Credit Total: \_\_\_\_18\_\_\_\_

#### **Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education  
 Credit Total: \_\_\_\_12\_\_\_\_



## Elementary Middle Level Education: Social Studies/Geology - Bachelor of Science in Education

Effective Fall 2017

<b>Intellectual Foundation</b>		<b>9 sh</b>	<b>First Year Student Seminar</b>		<b>1 sh</b>
<b>Written Communication</b>		<b>3 sh</b>	ELML119: Freshman Seminar	C	1 sh
ENGL100: Composition (3 sh)	C				
WC Competency: ELML493		✓			
WC Competency: ELML494		✓			
<b>Oral Communication</b>		<b>3 sh</b>	<b>Major Area and Cognate Courses</b>		<b>74 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	C		ELML200: Introduction to LA Methods	C	2 sh
			ELML250: Assessment and Differentiation	C	3 sh
			#ELML320: Science for Elem/Mid. Level Learn.	C	3 sh
			#ELML322: Mathematics for Elem/Mid. Level Learn.	C	3 sh
			#ELML323: Social Studies for Elem/Mid. Level Learn.	C	3 sh
<b>Mathematical and Computational Thinking</b>		<b>3 sh.</b>	#ELML330: Language Acquisition	C	3 sh
MATH102: Number Systems (3 sh)	C		#ELML405: Interven. /Classroom Mgt.	C	3 sh
			#ELML412: Science Methods II	C	2sh
<b>Critical Thinking</b>			#ELML420: LA Methods for Elem/Mid. Level	C	1 sh
CT Competency: ELML493		✓	#ELML431: Mathematics Methods I	C	1 sh
CT Competency: ELML494		✓	#ELML442: Social Studies Methods II	C	2 sh
			#ELML493: Student Teaching I	C	6 sh
			#ELML494: Student Teaching II	C	6 sh
<b>Knowledge and Inquiry</b>		<b>21 sh</b>	<b>Cognate Courses</b>		
<b>Natural Science Inquiry</b>		<b>6 sh</b>	ELML210: Learning Theory	C	3 sh
BIOL101: Basic Biology (3 sh)	C		Choose 1 Introductory Level Geology Course: GEOS131, GEOS213, GEOS230, GEOS301, GEOS305, or GEOS315	C	3 sh
GEOS130: Principles of Geology I (3sh)	C		GEOS215: Environmental Geology	C	3 sh
			HIST300/400: Any 300/400 level American History course	C	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		<b>6 sh</b>	HIST300/400: Any 300/400 level Non-Western History course	C	3 sh
PSYC103: Adolescent Development (3 sh)	C		MATH112: Intermediate Algebra	C	3 sh
ECON102: Macroeconomics or ECON103: Microeconomics	C				
			MATH115: Statistics and Geometry	C	3 sh
			PSYC201: Educational Psychology	C	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>	SPEC204: Cognitive Development of Diverse Learners	C	3 sh
ENGL110: Introduction to Literature (3 sh)	C		#SPEC309: Effective Instructional Strategies	C	3 sh
Art/Music/Theater (3 sh)	C		CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	C	3 sh
PLA Course (3 sh)	C		PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	C	3 sh
<b>Personal and Social Responsibility</b>		<b>12 sh</b>			
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>			
HIST101: World History I or HIST102: World History II (3 sh)	C				
POLI107: World Politics (3 sh)	C				
GEOG101: World Regional Geography (3 sh)	C				
<b>Wellness</b>		<b>3 sh</b>			
Wellness (3 sh)	C				
<b>Experiential Learning</b>					
EL Competency: ELML493		✓			
EL Competency: ELML494		✓			
<b>Elective</b>	C	<b>3 sh</b>			

# Advanced Level Courses  
 ✓ Met in course requirements

**Elementary Middle Level Education Track  
Social Studies/Geology Concentration**

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History I or HIST102 World History II  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
PLA Course  
ELML119 Freshman Seminar (1 cr)

Credit Total: \_\_\_\_\_|6\_\_\_\_\_

**Fall Sophomore (example)**

POLI107 World Politics  
MATH112 Intermediate Algebra  
PHYS101 Matter and Energy, PHYS110 How Things Work,  
PHYS135 Meteorology, or SCI110 Sci Tech  
Wellness  
ELML210 Learning Theory for Elementary And Middle Level  
Grades

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Fall Junior (example)**

ECON102 Micro Economics or ECON103 Macro Economics  
HIST300/400 American History  
HIST300/400 Non-Western History  
GEOS215 Environmental Geology  
PSYC201 Educational Psychology

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Fall Senior (example)**

ELML322 Mathematics for the Elementary and Middle Level  
Learner  
ELML402 Effective Instructional Literary Strategies  
ELML405 Intervention and Classroom Management Strategies for  
Middle Level Learners  
ELML412 Science Methods for Elementary and Middle Level  
Grades II (2 cr)  
ELML420 Language Arts Methods for Elementary and Middle  
Level Grades I (1 cr)  
ELML431 Mathematics Methods for Elementary and Middle Level  
Grades I (1 cr)  
ELML442 Social Studies Methods for Elementary and Middle  
Level Grades II (2 cr)

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature  
BIOL101 Basic Biology  
MATH115 Statistics and Geometry  
Art/Music/Theater  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for  
Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_|7\_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic  
Chem.  
GEOG101 World Regional Geography  
ELML320 Science for the Elementary and Middle Level  
Learners  
SPEC204 Cognitive Development of Diverse Learner  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level  
Learners  
ELML330 Language Acquisition Theory and Writing Instruction  
SPEC309 Effective Instructional Strategies  
GEOL Advanced Level Course Choice (see list)  
Elective

Credit Total: \_\_\_\_\_|5\_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum:  
Elementary and Middle Level I  
ELML494 Student Teaching and Professional Practicum:  
Elementary and Middle Level II

Credit Total: \_\_\_\_\_|2\_\_\_\_\_

## Elementary Middle Level Education: Social Studies/Geology with Special Education – Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency	
WC Competency	
<b>Oral Communication</b>	<b>3 sh</b>
#ELML402: Effective Instructional Lit. Strategies (3 sh)	
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH102: Number Systems (3 sh)	
<b>Critical Thinking</b>	
CT Competency	
CT Competency	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology (3 sh)	
GEOS130: Principles of Geology I (3 sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
ECON102: Micro Economics or ECON103: Macro Economics	
PSYC 103: Adolescent Psychology (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ENGL110: Introduction to Literature (3 sh)	
Art/Music/Theater (3 sh)	
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101: World History I or HIST102: World History II (3 sh)	
POLI107: World Politics (3 sh)	
GEOG101: World Regional Geography (3 sh)	
<b>Wellness</b>	<b>3 sh</b>
Wellness (3 sh)	
<b>Experiential Learning</b>	
EL Competency	
EL Competency	
<b>*Certification Students Only:</b>	
<b>#SPEC338: Positive Behavior Support</b>	<b>3 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
ELML119: Freshman Seminar	1 sh

<b>Major Area Courses</b>	<b>92 sh</b>
ELML200: Introduction to LA Methods	2 sh
ELML250: Assessment and Differentiation	3 sh
#ELML320: Science for the Elem/Mid. Level Learn.	3 sh
#ELML323: Social Sciences for the Elem/Mid. Level Learn.	3 sh
#ELML322: Math for the Elem/Mid. Level Learn.	3 sh
#ELML330: Language Acquisition	3 sh
#ELML431: Math Methods for the Elem/Mid. Level Learn.	1 sh
#ELML412: Science Methods II	2 sh
#ELML442: Social Studies Methods II	2 sh
#ELML405: Interven. /Classroom Mgt.	3 sh
#ELML420: LA Methods for Elem/Mid. Level	1sh
SPEC212: Low Incidence Disability Support	3 sh
#SPEC300: Comm. Disorders and Assistive Tech.	3 sh
#SPEC345: Lit. Skills for Students with Disabilities	3 sh
#SPEC430: Assessing Special Needs and Planning for Instruction	3 sh
#SPEC441: Strat. for Teaching High Incidence Dis.	3 sh
#SPEC440: Strat. for Teaching Low Incidence Dis.	3 sh
#SPEC425: Law and Collaborative Practices	3 sh
<b>Cognate Courses</b>	
#HIST300/400: Any 300/400 level Amer Hist Course	3 sh
#HIST300/400: Any 300/ 400 level Non West Hist Course	3 sh
GEOS215: Environmental Geology	3 sh
#Choose 1 Advanced Level Geology Course: GEOS131, GEOS213, GEOS215, GEOS230, GEOS301, GEOS305, or GEOS315	3 sh
CHEM101: Chemistry in the Environment or CHEM105: Forensic Chemistry	3 sh
PHYS101: Matter and Energy, PHYS110: How Things Work, PHYS135: Meteorology, or SCI110: Sci Tech	3 sh
ELML210: Learning Theory	3 sh
#ELML493: Student Teaching I	6 sh
#SPEC494: Student Teaching II	6 sh
SPEC215: High Incidence Disability Support	3 sh
SPEC204: Cognitive Development of Diverse Learners or SPEC105: Foundations of Special Ed.	3 sh
MATH112: Intermediate Algebra	3 sh
MATH115: Statistics and Geometry	3 sh
<i># Advanced Level Courses</i>	

\*All Pennsylvania Department of Education (PDE) Special Education PreK-8 and 7-12 teacher certification applicants are subject to dual certification requirements at the time of application. See PDE for details.

**Elementary/Middle Level Education (Science-Geology and Social Studies) / Special Education**  
Suggested Course Sequence

**Fall Freshman (example)**

ENGL100 Composition  
HIST101 World History 1 or HIST102 World History 2  
MATH102 Number Systems  
GEOS130 Principles of Geology I  
ELML119 Freshman Seminar for Elementary and Middle Level Education Students (1 cr)

Credit Total: \_\_\_\_\_ 13 \_\_\_\_\_

**Fall Sophomore (example)**

POLI107 World Politics  
MATH112 Intermediate Algebra Wellness  
PHYS101 Matter and Energy, PHYS110 How Things Work, PHYS135 Meteorology, or SCI110 Sci Tech  
ELML210 Learning Theory for Elementary And Middle Level Grades

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**SUMMER**

SPEC215 High Incidence Disability Support  
SPEC300 Communication Disorders and Assistive Technology

Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Junior (example)**

ECON101 Economics  
300/400 American History  
300/400 Non-Western History  
SPEC212 Low Incidence Disability Support  
GEOS215 Environmental Geology  
PLA Elective

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**Summer**

SPEC338 Positive Behavior Support (\*for certification only)  
SPEC345 Literacy Skills for Students with Disabilities

Credit Total: \_\_\_\_\_ 6 \_\_\_\_\_

**Fall Senior (example)**

ELML402 Effective Instructional Literary Strategies  
ELML322 Mathematics for the Elementary and Middle Level Learner  
ELML431 Mathematics Methods for Elementary and Middle Level Grades I  
ELML412 Science Methods for Elementary and Middle Level Grades II  
ELML442 Social Studies Methods for Elementary and Middle Level Grades II  
ELML405 Intervention and Classroom Management Strategies for Middle Level Learners  
ELML420 Language Arts Methods for Elementary and Middle Level Grades (1 cr)

Credit Total: \_\_\_\_\_ 15 \_\_\_\_\_

**Spring Freshman (example)**

ENGL110 Introduction to Literature Art./Music/Theater/Dance (World)  
MATH115 Statistics and Geometry  
BIOL102 Environmental Science  
PSYC103 Adolescent Psychology  
ELML200 Introduction to Language Arts Methods for Elementary and Middle Level Grades (2 cr)

Credit Total: \_\_\_\_\_ 17 \_\_\_\_\_

**Spring Sophomore (example)**

CHEM101 Chem. in the Environment or CHEM105 Forensic Chem.  
ELML320 Science for the Elementary and Middle Level Learner  
GEOG101 World Regional Geography  
GEOS Advanced Course Choice  
SPEC204 Cognitive Development of Diverse Learners or SPEC105 Foundations of Special Ed.  
ELML250 Assessment and Differentiation in the 4-8 Classroom

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**Spring Junior (example)**

ELML323 Social Studies for the Elementary and Middle Level Learners  
ELML330 Language Acquisition Theory and Wtg. Instruction or SPEC202 Cultural Diversity  
SPEC430 Assessing Special Needs and Planning for Instruction  
SPEC441 Strategies for Teaching High Incidence Disabilities  
SPEC440 Strategies for Teaching Low Incidence Disabilities  
SPEC425 Law and Collaborative Practices

Credit Total: \_\_\_\_\_ 18 \_\_\_\_\_

**Spring Senior (example)**

ELML493 Student Teaching and Professional Practicum: Elementary and Middle Level  
SPEC494 Student Teaching and Professional Practicum: Special Education

Credit Total: \_\_\_\_\_ 12 \_\_\_\_\_



**BA in English: Literature Concentration**  
**Suggested Course Sequence**

**Abbreviations:** PLA (Philosophical, Literary and Aesthetic); HBSS (Historical, Behavioral and Social Sciences); NS (Natural Sciences); GAC (Global Awareness and Citizenship)

*Italics indicate course is offered only in fall or spring semester, as noted*

**Fall Freshman (example)**

*HUM119* (1)  
 ENGL 100 (3)  
 ENGL100: Composition (3)  
 GAC-H (3)  
 PLA Inquiry (Performing Arts) (3)  
 HBSS Inquiry (3)  
 Language 101 (3)

Credit Total: 16

**Spring Freshman (example)**

PLA Inquiry (Literature/Philosophy) (3)  
 Natural Science Inquiry (3)  
  
 HBSS Inquiry (3)  
 Math/Computational Thinking (3)  
 Language 102 (3)

Credit Total: 15

**Fall Sophomore (example)**

*ENGL 205* (3)  
*ENGL 225* (3)  
*ENGL 230* (3)  
 PLA Inquiry (3)  
 Language 201 (3)

Credit Total: 15

**Spring Sophomore(example)**

*ENGL 220* (3)  
*ENGL 231* (3)  
 Natural Science (lab) (3)  
 Wellness (3)  
 Language 202 (3)

Credit Total: 15

**Fall Junior (example)**

*ENGL 240* (3)  
 328 Seminar (3)  
 ENGL writing (3)  
 Free elective (3)  
 Free elective (3)

Credit Total: 15

**Spring Junior (example)**

*ENGL 242* (3)  
*ENGL 336* (3)  
 328 Seminar (3)  
 Oral Communication (3)  
 Free elective (3)

Credit Total: 15

**Fall Senior (example)**

ENGL300-400 (3)  
 ENGL300-400 (3)  
 ENGL300-400 (3)  
 Free elective (3)  
 Free elective (3)

Credit Total: 15

**Spring Senior (example)**

ENGL300-400 (3)  
 ENGL300-400 (3)  
 Free elective (3)  
 Free elective (3)  
 Free elective (2)

Credit Total: 14



<b>Electives</b>	<b>17 sh</b>

<b>Foreign Language Requirement (Level-IV proficiency) #</b>	<b>up to 12 sh</b>
<b>Total credit hours</b>	<b>120</b>

# = BOG Advanced Coursework

**BA in English: Writing Concentration  
Suggested Course Sequence**

**Abbreviations:** PLA (Philosophical, Literary and Aesthetic); HBSS (Historical, Behavioral and Social Sciences); NS (Natural Sciences); GAC (Global Awareness and Citizenship)

*Italics indicate course is offered only in fall or spring semester, as noted*

**Fall Freshman (example)**

*HUM 119* (1)  
ENGL100: Composition (3)  
General Education (8)  
Language 101 (3)

Credit Total: 15

**Spring Freshman (example)**

PLA Inquiry (Literature or Philosophy) (3)  
HBSS (3)  
Math/Computational Thinking (3)  
Natural Science (3)  
Language 102 (3)

Credit Total: 15

**Fall Sophomore (example)**

*ENGL 205* (3)  
*ENGL225* (3)  
*ENGL230 or 240* (3)  
GAC-H (3)  
Language 201 (3)

Credit Total: 15

**Spring Sophomore (example)**

*ENGL 231* (3)  
*ENGL 242* (3)  
Natural Science (lab) (3)  
Language 202 (3)  
Free elective (3)

Credit Total: 15

**Fall Junior (example)**

ENGL 300-400 (3)  
ENGL 300-400 (3)  
*ENGL 230 or 240* (3)  
Wellness (3)  
Free elective (3)

Credit Total: 15

**Spring Junior (example)**

*ENGL315* (3)  
ENGL 300-400 (3)  
ENGL300-400 (3)  
328 Seminar (3)  
Oral Communication (3)

Credit Total: 15

**Fall Senior (example)**

ENGL 300-400 (3)  
ENGL writing (3)  
328 Seminar (3)  
Free elective (3)  
Free elective (3)

Credit Total: 15

**Spring Senior (example)**

*ENGL 357* (3)  
ENGL300-400 (3)  
ENGL elective (3)  
ENGL elective (3)  
Free elective (3)

Credit Total: 15



## Foreign Language: French – Bachelor of Arts

Effective Fall 2016

<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)		
WC competency 1		
WC competency 2		
<b>Oral Communication</b>		3 sh
<b>Mathematical and Computational Thinking</b>		3 sh.
<b>Critical Thinking</b>		
CT competency 1		
CT competency 2		

<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>		6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>		6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>		9 sh
Visual or Performing Arts course (3)		
Philosophy or Literature (3)		

<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		9 sh
3 sh must provide an historical foundation		
<b>Wellness</b>		3 sh
<b>Experiential Learning (2 units)</b>		
<b>Total General Education Credits</b>		<b>42sh</b>

<b>Electives</b>		<b>32sh</b>

<b>First Year Seminar</b>	<b>1 sh</b>
HIST119: First Year Seminar	

<b>Major Area and Cognate Courses</b>	<b>39 sh</b>
<b>Core Requirements</b>	9 sh
#FREN203: French Civilization I OR FREN204: French Civilization II	
#FREN303: French Literature I OR FREN304: French Literature II	
#FREN320: Francophone Identities	
<b>Study Abroad</b>	6-9 sh

Summer Immersion Program and/or regular semester program. Must be scheduled with advisor and completed after FREN202. Additional courses, up to 15 credits total, may be transferred provided they have LHU equivalent courses.

<b>French Electives</b>	6-9 sh
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Choose from list of approved French courses beyond Level IV

May include French courses taken abroad or through LHU distance education exchange agreements with other PASSHE universities.

#####Study abroad and French electives should total 15 sh of coursework taught in French


**Oral Proficiency Test (double majors exempt):** Students are required to take the OPI test administered by ACTFL (The American Council on the Teaching of Foreign Languages).

<b>Area requirements (double majors exempt)</b>	15 sh
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Four courses in a second foreign language as determined by placement test (12 sh)

#	
#	
#	

Foreign Language Core Seminar: (3 sh)

#LANG328: Francophone and Hispanic Cultures through Film	
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<b>Degree requirements:</b>	<b>6 sh</b>
Foreign language Degree Requirements are absorbed in the major	
<b>##Seminars (2 of 3)</b>	
Humanities 328	
Social Science 328	
Science/Math 328	
<b>Total credit hours</b>	<b>120</b>

# denotes advanced course work

Rev 10/14

## Foreign Language: Spanish – Bachelor of Arts

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	3 sh
ENGL100: Composition (3 sh)	
WC competency 1	
WC competency 2	
<b>Oral Communication</b>	3 sh
<b>Mathematical and Computational Thinking</b>	3 sh.
<b>Critical Thinking</b>	
CT competency 1	
CT competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh
Visual or Performing Arts course (3)	
Philosophy or Literature (3)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	9 sh
HIST101: World History 1 or HIST102: World History 2	
<b>Wellness</b>	3 sh
<b>Experiential Learning (2 units)</b>	
EL competency 1	
EL competency 2	
<b>Total General Education Credits</b>	<b>42sh</b>

<b>Electives</b>	<b>32sh</b>

<b>First Year Seminar</b>	<b>1 sh</b>
HIST119: First Year Seminar	

<b>Major Area and Cognate Courses</b>	<b>39 sh</b>
<b>Core Requirements</b>	9 sh
#SPAN203: Culture of Spain OR SPAN204: Hispanic American Culture	
#SPAN307: Intro. Spanish Literature	
#SPAN308: Intro. Spanish American Lit.	
<b>Study Abroad</b>	6-9 sh
Must be scheduled with foreign language advisor. An additional 6 credits of Spanish may be transferred to LHU provided they are equivalent to 300 level courses at LHU.	
<b>Spanish Electives</b>	6-9 sh
Choose from list of upper-level Spanish courses at LHU.	
##Study abroad and Spanish electives should total 15 sh of coursework taught in Spanish	
<b>Oral Proficiency Test (double majors exempt):</b> Students are required to take the OPI test administered by ACTFL (The American Council on the Teaching of Foreign Languages).	
<b>Area requirements (double majors exempt)</b>	15 sh
Four courses in a second foreign language as determined by placement test (12 sh)	
#	
#	
#	
Foreign Language Core Seminar: (3 sh)	
#LANG328: Francophone and Hispanic Cultures through Film	
<b>Degree requirements:</b>	<b>6 sh</b>
<b>Foreign Language degree requirements are absorbed in the major</b>	
<b>##Seminars (2 of 3)</b>	
Humanities 328	
Social Science 328	
Science/Math 328	
<b>Total credit hours</b>	<b>120</b>

**Geology: Applied Geology - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH141: Calculus 1	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
GEOS130: Principles of Geology 1	3
GEOS131: Principles of Geology 2	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GAC-H	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
BIOL106: Principles of Biology 1	3
BIOL107: Principles of Biology 2 #	3
CHEM120: Principles of Chemistry 1	4
CHEM121: Principles of Chemistry 2 #	4
PHYS130: Physics 1	4
PHYS131: Physics 2 #	4
GEOS213: Introduction to GIS	3
GEOS230: Geomorphology #	3
GEOS301: Invertebrate Paleontology #	3
GEOS305: Mineralogy and Petrology #	4
GEOS315: Sedimentology #	3
GEOS360: Hydrogeology #	4
GEOS415: Stratigraphy #	3
GEOS420: Geology of Energy and Mineral Resources #	4
GEOS430: Structural Geology #	4
GEOS490: Capstone Research Project #	2
Geology Field/Lab Experience	5
A combination of any of the courses below	
GEOS260: Geology Field Methods # (1-5 sh)	
GEOS369: Internship # (1-5 sh)	
GEOS499: Independent Study # (1-5 sh)	

# = Advanced Course Work

**Geology—Applied Geology Track  
Suggested Course Sequence**

<b>Fall Freshman (example)</b>	Credits
ENGL100: Composition	3
SCI119: First Year Student Seminar	1
GEOS130: Principles of Geology 1	3
BIOL106: Principles of Biology 1	3
MATH141: Calculus 1	3
General Education Course	3
Total Credits:	16

<b>Spring Freshman (example)</b>	Credits
GEOS131: Principles of Geology 2	3
BIOL107: Principles of Biology 2	3
General Education Course	3
General Education Course	3
General Education Course	3
Total Credits:	15

<b>Fall Sophomore (example)</b>	Credits
GEOS230: Geomorphology*	3
OR	
GEOS315: Sedimentology**	3
AND	
CHEM120: Principles of Chemistry 1	4
PHYS130: Physics 1	4
GEOS213: Introduction to GIS	3
Total Credits:	14

<b>Spring Sophomore (example)</b>	Credits
GEOS301: Invertebrate Paleontology**	3
OR	
GEOS415: Stratigraphy*	3
AND	
CHEM121: Principles of Chemistry 2	4
PHYS131: Physics 2	4
General Education Course	3
Total Credits:	14

<b>Fall Junior (example)</b>	Credits
GEOS230: Geomorphology*	3
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
OR	
GEOS315: Sedimentology**	3
General Education Courses	6
AND	
Electives	6
Total Credits:	15 or 17

<b>Spring Junior (example)</b>	Credits
GEOS301: Invertebrate Paleontology**	3
GEOS305: Mineralogy and Petrology**	4
OR	
GEOS420: Geology of Energy and Mineral Resources*	4
GEOS415: Stratigraphy*	3
AND	
General Education Courses	6
Geology Field/Lab Experience	2
Total Credits:	15

<b>Fall Senior (example)</b>	Credits
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
OR	
General Education Courses	6
AND	
GEOS490: Capstone Research Project	2
Geology Field/Lab Experience	1
Electives	5
Total Credits:	14 or 16

<b>Spring Senior (example)</b>	Credits
GEOS305: Mineralogy and Petrology**	4
OR	
GEOS420: Geology of Energy and Mineral Resources*	4
AND	
General Education Course	3
Electives	6
Geology Field/Lab Experience	2
Total Credits:	15

Upper Division Majors Courses are only offered every two years.

\* = Offered Only in Odd Ending Years

\*\* = Offered Only in Even Ending Years

**Geology: Engineering Geology - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH141: Calculus 1	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
GEOS130: Principles of Geology 1	3
GEOS131: Principles of Geology 2	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GAC-H	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
CHEM120: Principles of Chemistry 1	4
CHEM121: Principles of Chemistry 2 #	4
PHYS170: Intermediate Physics 1	4
PHYS171: Intermediate Physics 2 #	4
PHYS105: Engineering Graphics	3
MATH142: Calculus 2	3
GEOS213: Introduction to GIS	3
GEOS230: Geomorphology #	3
GEOS305: Mineralogy and Petrology #	4
GEOS313: Advanced GIS #	3
GEOS315: Sedimentology #	3
GEOS360: Hydrogeology #	4
GEOS420: Geology of Energy and Mineral Resources #	4
GEOS430: Structural Geology #	4
GEOS450: Geophysics and Tectonics #	4
GEOS490: Capstone Research Project #	2
Geology Field/Lab Experience	4
A combination of any of the courses below	
GEOS260: Geology Field Methods # (1-4 sh)	
GEOS369: Internship # (1-4 sh)	
GEOS499: Independent Study # (1-4 sh)	

# = Advanced Course Work

**Geology—Engineering Geology Track**  
**Suggested Course Sequence**

<b>Fall Freshman (example)</b>	Credits
ENGL100: Composition	3
SCI119: First Year Student Seminar	1
GEOS130: Principles of Geology 1	3
MATH141: Calculus 1	3
General Education Courses	6
Total Credits:	16

<b>Spring Freshman (example)</b>	Credits
GEOS131: Principles of Geology 2	3
MATH142: Calculus 2	3
General Education Course	3
General Education Course	3
General Education Course	3
Total Credits:	15

<b>Fall Sophomore (example)</b>	Credits
GEOS230: Geomorphology*	3
OR	
GEOS315: Sedimentology**	3
AND	
CHEM120: Principles of Chemistry 1	4
PHYS105: Engineering Graphics	3
GEOS213: Introduction to GIS	3
General Education Course	3
Total Credits:	16

<b>Spring Sophomore (example)</b>	Credits
GEOS313: Advanced GIS**	3
OR	
GEOS415: Stratigraphy*	3
AND	
CHEM121: Principles of Chemistry 2	4
PHYS170: Intermediate Physics 1	4
Geology Field/Lab Experience	1
General Education Course	3
Total Credits:	15

<b>Fall Junior (example)</b>	Credits
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
OR	
GEOS315: Sedimentology**	3
GEOS450: Geophysics and Tectonics**	4
AND	
PHYS171: Intermediate Physics 2	4
Electives	6
Total Credits:	17 or 18

<b>Spring Junior (example)</b>	Credits
GEOS313: Advanced GIS**	3
GEOS305: Mineralogy and Petrology**	4
OR	
GEOS420: Geology of Energy and Mineral Resources*	4
General Education Course	3
AND	
General Education Courses	6
Geology Field/Lab Experience	1
Total Credits:	14

<b>Fall Senior (example)</b>	Credits
GEOS230: Geomorphology*	3
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
OR	
GEOS450: Geophysics and Tectonics**	4
Geology Field/Lab Experience	1
AND	
GEOS490: Capstone Research Project	2
Electives	5
Total Credits:	12 or 18

<b>Spring Senior (example)</b>	Credits
GEOS305: Mineralogy and Petrology**	4
OR	
GEOS420: Geology of Energy and Mineral Resources*	4
General Education Course	3
AND	
Electives	6
Geology Field/Lab Experience	1
Total Credits:	12 or 14

Upper Division Majors Courses are only offered every two years.

\* = Offered Only in Odd Ending Years

\*\* = Offered Only in Even Ending Years

## Geology: Geography and GIS - Bachelor of Science

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH113: Pre-Calculus	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
GEOS130: Principles of Geology 1	3
GEOS131: Principles of Geology 2	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GAC-H	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
BIOL106: Principles of Biology 1	3
BIOL107: Principles of Biology 2 #	3
GEOG100: Physical Geography	3
PHYS135: Meteorology	3
GEOS120: Oceanography	3
GEOS213: Introduction to GIS	3
GEOS215: Environmental Geology #	3
GEOS230: Geomorphology #	3
GEOS313: Advanced GIS #	3
GEOS360: Hydrogeology #	4
GEOS451: Coastal and Environmental Oceanography # (Summer course at Wallops Island, VA)	3
GEOS490: Capstone Research Project #	2
Geography Course	
These can be any course above GEOG100 #	15
200+ Level Non-Science supporting courses #	6
Geology Field/Lab Experience	3
A combination of any of the courses below	
GEOS260: Geology Field Methods # (1-3 sh)	
GEOS369: Internship # (1-3 sh)	
GEOS499: Independent Study # (1-3 sh)	

# = Advanced Course Work

**Geology—Geography and GIS Track**  
**Suggested Course Sequence**

<b>Fall Freshman (example)</b>	Credits
ENGL100: Composition	3
SCI119: First Year Student Seminar	1
GEOS130: Principles of Geology 1	3
BIOL106: Principles of Biology 1	3
MATH113: Pre-Calculus	3
General Education Course	3
Total Credits:	16

<b>Fall Sophomore (example)</b>	Credits
GEOS230: Geomorphology*	3
OR	
GEOS215: Environmental Geology**	3
AND	
GEOG100: Physical Geography	3
General Education Courses	6
GEOS213: Introduction to GIS	3
Total Credits:	15

<b>Fall Junior (example)</b>	Credits
GEOS230: Geomorphology*	3
GEOS360: Hydrogeology*	4
OR	
Geography Course	3
GEOS215: Environmental Geology**	3
AND	
Electives	6
Total Credits:	12 or 13

<b>Fall Senior (example)</b>	Credits
GEOS360: Hydrogeology*	4
Geography Course	3
OR	
GEOS215: Environmental Geology**	3
Geography Course	3
AND	
GEOS490: Capstone Research Project	2
Geology Field/Lab Experience	1
Electives	5

Total Credits:	14 or 15
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<b>Spring Freshman (example)</b>	Credits
GEOS131: Principles of Geology 2	3
BIOL107: Principles of Biology 2	3
General Education Course	3
General Education Course	3
General Education Course	3
Total Credits:	15

<b>Spring Sophomore (example)</b>	Credits
GEOS313: Advanced GIS **	3
OR	
Geography Course	3
AND	
Geography Course	3
GEOS120: Oceanography	3
General Education Course	6
Total Credits:	15

<b>Summer II Sophomore</b>	Credits
GEOS451: Coastal and Environmental Oceanography	3

<b>Spring Junior (example)</b>	Credits
GEOS313: Advanced GIS**	3
OR	
Geography Course	3
AND	
Geography Courses	6
General Education Courses	6
Geology Field/Lab Experience	1
Total Credits:	16

<b>Spring Senior (example)</b>	Credits
200+ Level Non-Science	6
Electives	6
Geology Field/Lab Experience	1
Total Credits:	13

Upper Division Majors Courses are only offered every two years.

\* = Offered Only in Odd Ending Years

\*\* = Offered Only in Even Ending Years



**Geology: Water and Environment - Bachelor of Science**

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH113: Pre-Calculus	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
GEOS130: Principles of Geology 1	3
GEOS131: Principles of Geology 2	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GAC-H	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
BIOL106: Principles of Biology 1	3
BIOL107: Principles of Biology 2 #	3
CHEM120: Principles of Chemistry 1	4
CHEM121: Principles of Chemistry 2 #	4
GEOS120: Oceanography	3
GEOS213: Introduction to GIS	3
GEOS215: Environmental Geology #	3
GEOS230: Geomorphology #	3
GEOS301: Invertebrate Paleontology #	3
GEOS305: Mineralogy and Petrology #	4
GEOS313: Advanced GIS #	3
GEOS315: Sedimentology #	3
GEOS360: Hydrogeology #	4
GEOS361: Aqueous Environmental Geochemistry #	3
GEOS415: Stratigraphy #	3
GEOS430: Structural Geology #	4
GEOS451: Coastal and Environmental Oceanography # (Summer course at Wallops Island, VA)	3
GEOS490: Capstone Research Project #	2
Geology Field/Lab Experience	2
A combination of any of the courses below	
GEOS260: Geology Field Methods # (1-2 sh)	
GEOS369: Internship # (1-2 sh)	
GEOS499: Independent Study # (1-2 sh)	

# = Advanced Course Work

**Geology— Water and Environment Track**  
**Suggested Course Sequence**

<b>Fall Freshman (example)</b>	Credits
ENGL100: Composition	3
SCI119: First Year Student Seminar	1
GEOS130: Principles of Geology 1	3
BIOL106: Principles of Biology 1	3
MATH113: Pre-Calculus	3
General Education Course	3
Total Credits:	16

<b>Fall Sophomore (example)</b>	Credits
GEOS230: Geomorphology*	3
OR	
GEOS315: Sedimentology**	3
AND	
CHEM120: Principles of Chemistry 1	4
General Education Course	3
GEOS213: Introduction to GIS	3
Total Credits:	13

<b>Fall Junior (example)</b>	Credits
GEOS230: Geomorphology*	3
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
General Education Course	3
OR	
GEOS315: Sedimentology**	3
GEOS215: Environmental Geology**	3
AND	
Electives	6
Total Credits:	12 or 16

<b>Fall Senior (example)</b>	Credits
GEOS360: Hydrogeology*	4
GEOS430: Structural Geology*	4
General Education Course	3
OR	
GEOS215: Environmental Geology**	3
AND	
GEOS490: Capstone Research Project	2
General Education Course	3
Geology Field/Lab Experience	1
Electives	3
Total Credits:	12 or 16

\* = Offered Only in Odd Ending Years

<b>Spring Freshman (example)</b>	Credits
GEOS131: Principles of Geology 2	3
BIOL107: Principles of Biology 2	3
General Education Course	3
General Education Course	3
General Education Course	3
Total Credits:	15

<b>Spring Sophomore (example)</b>	Credits
GEOS313: Advanced GIS **	3
GEOS301: Invertebrate Paleontology**	3
OR	
GEOS415: Stratigraphy*	3
AND	
CHEM121: Principles of Chemistry 2	4
GEOS120: Oceanography	3
Total Credits:	13
<b>Summer II Sophomore</b>	
GEOS451: Coastal and Environmental Oceanography	3

<b>Spring Junior (example)</b>	Credits
GEOS313: Advanced GIS**	3
GEOS305: Mineralogy and Petrology**	4
GEOS361: Aqueous Environmental Geochemistry**	3
OR	
GEOS301: Invertebrate Paleontology**	3
General Education Course	3
AND	
General Education Courses	3
Electives	2
Total Credits:	12 or 18

<b>Spring Senior (example)</b>	Credits
GEOS305: Mineralogy and Petrology**	4
GEOS361: Aqueous Environmental Geochemistry**	3
General Education Course	6
AND	
Geology Field/Lab Experience	1
Electives	6
Total Credits:	14 or 17

Upper Division Majors Courses are only offered every two years.

## Health and Physical Education - Bachelor of Science in Education

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication (WC)</b>	<b>3 sh</b>
ENGL100 Composition	
WC Competency 1	
WC Competency 2	3
<b>Oral Communication (OC)</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking (MCT)</b>	<b>3 sh</b>
MATH101 or higher (C- or above)	3
<b>Critical Thinking (CT)</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (NS)</b>	<b>6 sh</b>
HLTH122 Essentials of A & P NS (lab)	3
	3
<b>Historical, Behavioral, and Social Science Inquiry (HBS)</b>	<b>6 sh</b>
PSYC102 Child Dev. <b>OR</b> PSYC103 Adolescent Dev.	3
<b>Philosophical, Literary, and Aesthetic Inquiry (PLA)</b>	<b>9 sh</b>
Literature	3
Visual <b>OR</b> Performing Arts	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship (GAC)</b>	<b>9 sh</b>
(One course must meet the historical foundation competency)	
SPEC202 Cultural & Linguistic Diversity in Ed.	3
<b>Wellness (WEL)</b>	<b>3 sh</b>
HPED255 Teaching Fitness in K-12 School	3
<b>Experiential Learning (EL) (2 units)</b>	

<b>Major Courses (HPED/HLTH)</b>	<b>83.5 sh</b>
<b>Theory Courses</b>	<b>43 sh</b>
❖HPED102 Foundations of P.E. Seminar	2
HPED115 Teaching Invasion Sports I	3
HPED125 Teaching Invasion Sports II	3
HPED130 Teaching Net Sports	3
HPED210 Teaching Rhythmic Activities & Dance	1
HPED213 Methods for Teaching Elem. P.E.	3
HPED214 Teaching Lifetime Activities	2
HPED302 Motor Learning for P.E.	3
HPED352 Kinesiology	2
HLTH204 Found. of School & Com. Health Ed.	3
HLTH214 Planning & Assessment in School Health Programs	2
*HLTH330 School Health Programs	2
*HLTH334 Teaching Nutrition & Consumer Health	3
*HLTH336 Teaching Drug Education	3
*HLTH341 Teaching Human Sexuality	3
*HLTH353 Physiology of Exercise	3
Select one Swim Course based on Swim Assessment HPED134 EWS, HPED222 LGI, HPED225 LGT, HPED234 WSI	1
Select one Advanced Techniques Course (Refer to HPED student handbook)	1
<b>Cognate Courses</b>	<b>12</b>
MATH101 or higher (2 <sup>nd</sup> math course) (C- or above)	3
SPEC204 Cognitive Dev. of Diverse Learners	3
SPEC345 Literacy Instruction for Students with Disabilities	3
PSYC201 Educational Psychology (C or above)	3
<b>Professional Semester (Block)</b>	<b>16.5</b>
*RECR305 Adventure Act. & Outdoor Pursuits	.5
*HPED310 Techniques & Strategies for Teaching P.E.	3
*HPED311 Teaching Health	3
*HPED312 Adapted Physical Education	3
*HPED314 Measurement for Evaluation. in Health & P.E.	3
*HPED400 Professional Development	1
*HPED463 Organization & Admin. of HPE (IL, WE)	3
<b>Student Teaching</b>	<b>12</b>
*HPED493 Elem Student Teaching. & Prof. Practicum IL, WE (EL)	6
*HPED494 Secondary Student Teaching & Prof. Practicum IL, WE (EL)	6

## Health and Physical Education: Aquatics – Bachelor of Science

General Education information below is incorrect. The General Education requirements that became effective fall 2014 apply. Refer to the General Education section of the catalog.

Students must maintain a 2.0 major and overall GPA and at least a C in all courses.

Schedule	Grade		
<b>Required Core</b>	(23.5		<b>Aquatics Track Suggested Electives</b> (Select 9 credits)
<i>credits)</i>			
_____ HLTH128 Anatomy and Physiology I (3)	_____		_____ HPED--- Teaching Activity courses not
_____ HLTH130 Anatomy and Physiology II (3)	_____		taken in Physical Education Core
_____ HLTH353 Physiology of Exercise (3) HPED352	_____		(.5-3.0)
_____ Kinesiology (2)	_____		_____ PSYC201 Educational Psychology (3)
_____ HPED016 Strength Training (1)	_____		_____ PSYC235 Interpersonal Skills and
_____ HPED102 Foundations of Physical	_____		Leadership (3)
Education Seminar (2) HPED103	_____		_____ PSYC250 Social Psychology (3) RECR202
_____ Teaching Soccer (.5) HPED105 Teaching	_____		Outdoor Recreation Activities
_____ Basketball (.5) HPED111 Teaching Racquet	_____		(3)
_____ Sports (1)	_____		_____ RECR205 Nutrition for Wellness (3)
_____ HPED113 Teaching Volleyball (.5)	_____		_____ RECR244 Recreation Leadership and
_____ HPED120 Teaching Baseball/Softball (.5)	_____		Supervision (3)
_____ HPED210 Teaching Rhythmic Activities	_____		_____ RECR301 Exercise Prescription (3) RECR325
and Dance (1)	_____		Camp Counseling and Admin-
_____ HPED213 Elementary Physical Education	_____		istration (3)
Activities (1)	_____		
_____ HPED218 Teaching Tumbling/Gymnastics(.5)	_____		<b>General Education Requirements</b> (42 credits)
_____ HPED260 Principles and Practices of	_____		
Conditioning (1)	_____		<b>Wellness</b> (3 credits)
_____ HPED302 Motor Learning for Physical	_____		
Education (3)	_____		<b>Humanities</b> (18 credits)
			_____ Art/Music/Theatre/Dance (3)
			_____ Art/Music/Theatre/Dance (3)
<b>Required Sport Core</b>	(32 credits)		_____ Literature (3)
<i>credits)</i>			_____ Philosophy (3)
_____ HLTH320 Drug Education (3) <b>OR</b> HLTH336	_____		_____ Composition (3)
_____ Teaching Drug Education (3) SPRT106	_____		_____ Speech (3)
_____ Introduction to Sport Adminis-	_____		
tration (3)	_____		<b>Natural Sciences/Math</b> (9 credits)
_____ SPRT305 Psychology of Coaching (3)	_____		_____ Lab Science (3)
_____ SPRT323 Sport and Society (3)	_____		_____ Lab Science (3)
_____ HPED350 Advanced Techniques/Coaching	_____		_____ Math (3)
Swimming/Diving (2)	_____		
_____ HPED351 Management of Aquatic Programs and	_____		<b>History/Social Sciences</b> (12 credits)
Facilities (2)	_____		_____ World History (3)
_____ HPED222 Lifeguarding Instructor (1) HPED225	_____		_____ Government/Economics (3)
_____ Swimming/Lifeguard Training (1) HPED228	_____		_____ Psychology (3)
_____ Synchronized Swimming (.5) HPED230 Aquacise	_____		_____ Sociology/Anthropology/Geography (3)
(.5)	_____		
_____ HPED234 Water Safety Instructor (1) HPED450	_____		
_____ Professional Field Experience (12)	_____		
			<b>Additional Requirements-Overlays</b>
<b>Aquatics Track Support Courses</b>	(Select 9 credits)		Information Literacy (IL) _____ (2 Units)
<i>credits)</i>			Writing Emphasis (WE) _____ Multi-
_____ HPED016 Strength Training (1)	_____		Cultural (MC) _____
_____ HPED228 Synchronized Swimming (.5)	_____		
_____ HPED230 Aquacise (.5)	_____		<b>Free Electives</b> (6 credits)
_____ HPED---Advanced Techniques/Coaching	_____		_____
(Not taken in Core) (1-2)	_____		_____
_____ HLTH202 Care & Prevention of Athletic	_____		_____
Injuries (3)	_____		_____
_____ HLTH301 CPR and Emergency Care (3)	_____		_____
_____ EDTF300 Educational Technology for	_____		_____
Specialized Disciplines (3)	_____		_____

**Check with your advisor to stay current with curriculum changes and options. This is only a guide. Revised 8-12**

**Aquatics Track Support Courses**

(select 6.5 credits)

- \_\_\_\_\_ HPED200 Teaching Aerobics (.5) HPED016 \_\_\_\_\_
- \_\_\_\_\_ Strength Training (1) \_\_\_\_\_
- \_\_\_\_\_ HPED--- Advanced Techniques/Coaching \_\_\_\_\_
- \_\_\_\_\_ (Not taken in Core) (1-2) \_\_\_\_\_
- \_\_\_\_\_ HPED228 Synchronized Swimming (.5) HPED230 \_\_\_\_\_
- \_\_\_\_\_ Aquacise (.5) \_\_\_\_\_
- \_\_\_\_\_ HLTH202 Care & Prevention of Athletic Injuries (3) HLTH301 CPR \_\_\_\_\_
- \_\_\_\_\_ and Emergency Care (3) \_\_\_\_\_
- \_\_\_\_\_ HLTH332 Psychological Aspects of Injury and Illness (3) \_\_\_\_\_

**Aquatics Track Supporting Electives**

(select 12 credits)

- \_\_\_\_\_ HPED--- Teaching Activity courses not taken in \_\_\_\_\_
- \_\_\_\_\_ Physical Education Core (.5+) PSYC201 \_\_\_\_\_
- \_\_\_\_\_ Educational Psychology (3) \_\_\_\_\_
- \_\_\_\_\_ PSYC235 Interpersonal Skills and Leadership (3) PSYC250 \_\_\_\_\_
- \_\_\_\_\_ Social Psychology (3) \_\_\_\_\_
- \_\_\_\_\_ RECR202 Outdoor Recreation Activities (3) RECR205 \_\_\_\_\_
- \_\_\_\_\_ Nutrition for Wellness (3) \_\_\_\_\_
- \_\_\_\_\_ RECR244 Recreation Leadership and Supervision (3) \_\_\_\_\_
- \_\_\_\_\_ RECR301 Exercise Prescription (3) \_\_\_\_\_
- \_\_\_\_\_ RECR325 Camp Counseling and Administration (3) \_\_\_\_\_

**Suggested course sequence**  
**Effective Fall Semester 2012**

**FRESHMAN YEAR**

<b>Fall 1</b>	<b>Spring 2</b>
HPED103 Teaching Soccer .5	HPED105 Teaching Basketball .5
HPED102 Foundations of Physical Educ. Seminar 2	HPED120 Teaching Baseball/Softball .5
HPED111 Teaching Racquet Sports 1	HLTH130 Anatomy and Physiology II 3
HPED113 Teaching Volleyball .5	<i>General Education Elective 3</i>
HPED200 Teaching Aerobics .5	<i>General Education Elective 3</i>
HLTH128 Anatomy and Physiology I 3	<i>General Education Elective 3</i>
<i>General Education Elective 3</i>	<i>General Education Elective 3</i>
<i>General Education Elective 3</i>	
<b>Total 16.5</b>	<b>Total 16</b>

**SOPHOMORE YEAR**

<b>Fall 3</b>	<b>Spring 4</b>
HPED218 Teaching Tumbling/Gymnastics .5	SPRT106 Intro. to Sport Administration 3
HPED260 Practices/Principles of Conditioning 1	SPRT305 Psychology of Coaching 3
HPED302 Motor Learning Applied to Phy. Edu. 3	SPRT323 Sport and Society 3
HLTH320 Drug Education/ <b>OR</b> HLTH336 Teaching Drug Education 3	<i>General Education Elective 3</i>
<i>General Education Elective 3</i>	<i>General Education Elective 3</i>
<i>General Education Elective 3</i>	
<b>Total 16.5</b>	<b>Total 15</b>

**JUNIOR YEAR**

<b>Fall 5</b>	<b>Spring 6</b>
HLTH353 Physiology of Exercise 3	HPED213 Teaching Elem. Phy. Edu. Act. 1
HPED234 Water Safety Instructor 1	HPED222 Lifeguarding Instructor 1
HPED350 Advanced Techniques/Coaching Swimming/Diving 2	HPED225 Swimming/Lifeguard Training 1
HPED351 Management of Aquatic Programs and Facilities 2	Aquatics Track Support 3
HPED352 Kinesiology 2	Aquatics Track Support .5 or 1
Supporting Elective 3	Supporting Electives 3
<i>General Education Elective 3</i>	<i>General Education Elective 3</i>
	<i>Free Elective 2-3</i>
<b>Total 16</b>	<b>Total 14.5 or 16</b>

**SENIOR YEAR**

<b>Fall 7</b>	<b>Spring 8</b>
Aquatics Track Support 3	HPED450 Field Experience 12
Aquatics Track Support 3	
Supporting Elective 3	
Free Elective 3	
Free Elective 3	
<b>Total 15</b>	







**Health and Physical Education: Sport in Correctional Settings – Bachelor of Science**  
**Effective Fall 2016**

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication (WC)</b>	<b>3 sh</b>
ENGL 100: Composition	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
HPED 115	
<b>Mathematical and Computational Thinking (MCT)</b>	<b>3 sh</b>
MATH 101 or higher (C- or above)	
<b>Critical Thinking (CT)</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (NS)</b>	<b>6 sh</b>
HLTH 122 Essentials of A & P NS (lab)	3
	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC 100 Intro to Psychology	3
SOCI 101 Intro to Sociology	3
<b>Philosophical, Literary, and Aesthetic Inquiry (PLA)</b>	<b>9 sh</b>
Philosophy <b>OR</b> Literature	3
Visual <b>OR</b> Performing Arts	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship (GAC)</b>	<b>9 sh</b>
(One course must meet the historical foundation competency)	
<b>Wellness (WEL)</b>	<b>3 sh</b>
HPED 140 Wellness for Life	3
<b>Experiential Learning (EL) (2 units)</b>	
EL Competency 1	
EL Competency 2	

<b>Electives (16 sh) (6 hours must be 300 level or higher)</b>	<b>16 sh</b>

<b>First Year Student Seminar</b>	<b>2 sh</b>
◆HPED 102 Foundations of P.E.	2

<b>Required Physical Education Core (HPED/HLTH)</b>	<b>33 sh</b>
A Swimming Course	
HPED 134 or 225 or 234 or 222 (select 1) EWS, LGT, WSI, LGI	1
HPED 016 Strength Training	1
HPED 125 Teaching Invasion Sports II	3
HPED 130 Teaching Net Sports	3
*HPED 214 Teaching Lifetime Activities	2
*HPED 255 Teaching Fitness in K-12 Schools	3
*RECR 315 Program Planning and Design	3
*RECR 302 Supervision of Strength Training Programs	3
*HPED 352 Kinesiology	2
*HPED 450 Physical Education Professional Field Experience	12
• Current CPR/First Aid Certification	N.A.

<b>Required Criminal Justice Core</b>	<b>15 sh</b>
CRJS 102 Introduction to Criminal Justice	3
CRJS 205 Drug Abuse <b>OR</b> PSYC 322 Drugs and Human Behavior <b>OR</b> HLTH 320 Drug Education	3
*CRJS 301 Juvenile Justice	3
*CRJS 305 Corrections	3
*CRJS 320 Topics in Criminal Justice	3

<b>Support Core (choose 9 sh below)</b>	<b>9 sh</b>
*HLTH 325 Death Education	3
*HLTH 470 Sex Education	3
*RECR 204 Foundations of Therapeutic Recreation	3
*RECR 365 Therapeutic Recreation Methods & Techniques	3
*RECR 415 Organization & Management of Recreation Agencies	3
*CRJS 215 American Gangs: History, Identification & Interdiction	3
*CRJS 302 Criminology	3
*SOCI 203 Social Problems	3
*SOCI 205 Racial & Ethnic Relations	3
*SOCI 300 Sociology of Deviance	3
*HPED 3xx Techniques of Coaching (1-3 sh)	(1-3)
*PHIL 102 Ethics	3
*PSYC 212 Forensic Psychology	3
*PSYC 250 Social Psychology	3
*PSYC 307 Abnormal Psychology	3

❖HPED102: Foundations of Physical Education meets First Year Seminar requirement

\*Advanced Level Courses

Total credit hours = 120



## Health Science: Community and Public Health Education - Bachelor of Science

Effective Fall 2017

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2:	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107: Basic Statistics I	3 sh
<b>Critical Thinking</b>	
CT Competency 1:	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Sciences Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology 1	3 sh
#BIOL107: Principles of Biology 2	3 sh
<b>Historical, Behavioral, and Social Sciences Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Visual Performing Arts	
Philosophy or Literature	
Any of the above	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
Historical Foundation	
Historical Foundation or other	
Historical Foundation or other	
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health	3 sh
<b>Experiential Learning</b>	
EL Competency 1: HLTH485: Field Experience	
EL Competency 2: HLTH485: Field Experience	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HLTH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Health Science Required Courses</b>	
HLTH115: Human Anatomy & Physiology 1	4 sh
#HLTH120: Human Anatomy & Physiology 2	4 sh
#HLTH200: Introduction to Disease	3 sh
<b>Community Health Required Courses</b>	
HLTH140: Introduction to Public Health	3 sh
#HLTH204: Found of School/Comm Health Edu	3 sh
#HLTH218: Public Health and the Environment	3 sh
#HLTH235: Community Health Strategies	3 sh
#HLTH240: Introduction to Epidemiology	3 sh
#HLTH307: Cultural Aspects of Health	3 sh
#HLTH330: School Health Programs	2 sh
#HLTH350: Health Program Planning	3 sh
#HLTH401: Current Health Issues	3 sh
#HLTH402: Evaluation in Health Education/Prom.	3 sh
#HLTH410: Applied Community & Public Health	3 sh
#HLTH485: Field Experience in Health Science	9 sh
<b>#Community Health Electives</b>	<b>8 sh</b>
HLTH208: Stress Mngt/Life Skills Health Prom	3 sh
HLTH214: Plan/Assessment in School Health Edu	2 sh
HLTH315: Consumer Health	3 sh
HLTH325: Death Education	3 sh
HLTH320: Drug Education	3 sh
HLTH353: Physiology of Exercise	3 sh
HLTH415: Introduction to Pharmacology	3 sh
HLTH430: Women's Health Issues	3 sh
HLTH440: Research in Health Science	3 sh
HLTH470: Sex Education	3 sh
HLTH485: Field Experience in Health Science	3 sh
HLTH499: Independent Study	3 sh
POLI260: Introduction to Public Administration	3 sh
POLI335: Politics of Global Health	3 sh
RECR205: Nutrition for Wellness	3 sh

**Community and Public Health Education**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
BIOL106: Principles of Biology 1 (3)  
HLTH105: Introduction to Health (3)  
HLTH119: First Year Student Seminar (1)  
HLTH115: Anatomy and Physiology 1 (4)  
HLTH204: Foundations of School and Community Health Education (3)

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**Spring Freshman (example)**

BIOL107: Principles of Biology 2 (3)  
HLTH120: Anatomy and Physiology 2 (4)  
HLTH140: Introduction to Public Health (3)  
HLTH Elective (2)  
PSYC100: Introduction to Psychological Science (3)

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**Fall Sophomore (example)**

HLTH200: Introduction to Disease (3)  
HLTH218: Public Health and the Environment (3)  
MATH107: Basic Statistics I (3)

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**Spring Sophomore (example)**

HLTH240: Introduction to Epidemiology (3)  
HLTH235: Community Health Strategies (3)  
HLTH Elective (3)

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**Fall Junior (example)**

HLTH350: Health Program Planning (3)  
HLTH402: Evaluation in Health Education and Health Promotion (2)

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**Spring Junior (example)**

HLTH307: Cultural Aspects of Health (3)  
HLTH330: School Health Programs (2)  
  
HLTH410: Applied Community & Public Health (3)  
HLTH Elective (3)

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**Fall Senior (example)**

HLTH401: Current Health Issues (3)  
HLTH Elective (3)

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**Spring Senior (example)**

HLTH485: Field Experience in Health Science (9)

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## Health Science: Exercise Science (Pre-AT) - Bachelor of Science

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2:	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH112: Intermediate Algebra OR	3 sh
MATH113: Precalculus OR	
MATH141: Calculus 1	
<b>Critical Thinking</b>	
CT Competency 1:	
CT Competency 2:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Sciences Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology 1	3 sh
#BIOL107: Principles of Biology 2	3 sh
<b>Historical, Behavioral, and Social Sciences Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Visual Performing Arts	3 sh
Philosophy or Literature	3 sh
Any of the above	3 sh

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
Historical Foundation	3 sh
Historical Foundation or Other	3 sh
Historical Foundation or Other	3 sh
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health	3 sh
<b>Experiential Learning</b>	
EL Competency 1:	
EL Competency 2:	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HLTH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
*HLTH115: Human Anatomy and Physiology 1	4 sh
#*HLTH120: Human Anatomy and Physiology 2	4 sh
#HLTH200: Introduction to Disease	3 sh
#HLTH305: Biomechanics	3 sh
#HLTH353: Physiology of Exercise	3 sh
#HLTH363: Applied Sport & Exercise	3 sh
#HLTH414: Current Issues in Exercise Science	3 sh
#HLTH425: Clinical Exercise Physiology	3 sh
#HLTH440: Research Methods in Health Science	3 sh
CHEM120: Principles of Chemistry 1	4 sh
#CHEM121: Principles of Chemistry 2	4 sh
MATH107: Basic Statistics 1	3 sh
#RECR205: Nutrition for Wellness OR	3 sh
CHEM111: Chemistry of Nutrition	
<b>Major Area Electives (from page 2)</b>	<b>17 sh</b>

#BOG Advanced Coursework  
\*Grade of C or higher required

<b>Major Area Electives</b>	
#ATTR202: Care & Prevention of Athletic Injuries	3 sh
HLTH108: Medical Terminology	3 sh
HLTH110: Orientation to Athletic Training	1 sh
HLTH140: Introduction to Public Health	3 sh
#HLTH218: Public Health and the Environment	3 sh
#HLTH240: Introduction to Epidemiology	3 sh
#HLTH301: CPR & Emergency Care	3 sh
#HLTH320: Drug Education	3 sh
#HLTH332: Psychology of Injury & Illness	3 sh
#HLTH401: Current Health Issues	3 sh
#HLTH406: Biomechanics of Injury	3 sh
#HLTH407: Advanced Human Physiology	4 sh
#HLTH415: Introduction to Pharmacology	3 sh
#HLTH420: Clinical Evaluation & Rehabilitation	3 sh
#HLTH430: Women's Health Issues	3 sh
#HLTH451: Advanced Human Anatomy	4 sh
#HLTH470: Sex Education	3 sh
#HLTH485: Field Experience in Health Science	1-6 sh
#HLTH498: Health Science Seminar	1-3 sh
#HLTH499: Independent Study	1-3 sh
PHYS130: Physics 1	4 sh
#PHYS131: Physics 2	4 sh
#PSYC240: Lifespan Development	3 sh
#PSYC307: Abnormal Psychology	3 sh
#PSYC315: Health Psychology	3 sh
#RECR200: Principles of Personal Training	3 sh
#RECR301: Exercise Prescription	3 sh
#RECR302: Supervision of Strength Training Programs	3 sh
#RECR303: Sports Nutrition	3 sh
#RECR312: Teaching Conditioning Principles	3 sh
SPAN110: Basic Spanish for Medical Personnel	3 sh
#SPRT206: Introduction to Sport & Exercise Psychology	3 sh

**Exercise Science Track  
Suggested Course Sequence**

**Fall Freshman**

ENGL100: Composition (3)  
BIOL106: Principles of Biology 1 (3)  
HLTH105: Introduction to Health (3)  
HLTH115: Anatomy and Physiology 1 (4)  
HLTH119: First Year Student Seminar (1)

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**Spring Freshman**

BIOL107: Principles of Biology 2 (3)  
HLTH120: Anatomy and Physiology 2 (4)  
PSYC100: Introduction to Psychology (3)  
MATH (3)

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**Fall Sophomore**

CHEM120: Principles of Chemistry 1 (4)  
HLTH200: Introduction to Disease (3)  
HLTH353: Physiology of Exercise (3) OR  
HLTH305: Biomechanics (3)  
MATH107: Basic Statistics 1 (3)

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**Spring Sophomore**

CHEM121: Principles of Chemistry 2 (4)  
RECR205: Nutrition for Wellness (3)  
HLTH353: Physiology of Exercise (3) OR  
HLTH305: Biomechanics (3)

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**Fall Junior**

HLTH363: Applied Sport/Exercise Sci (3)

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**Spring Junior**

HLTH425: Clinical Exercise Physiology (3)  
HLTH440: Research Methods in Health Science (3)

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**Fall Senior**

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**Spring Senior**

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## Health Science: Exercise Science 3+2 – Bachelor of Science

Effective Fall 2017

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2:	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH112: Intermediate Algebra OR	3 sh
MATH113: Precalculus OR	
MATH141: Calculus I	
<b>Critical Thinking</b>	
CT Competency 1:	
CT Competency 2:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Sciences Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology I**	3 sh
#BIOL107: Principles of Biology II**	3 sh
<b>Historical, Behavioral, and Social Sciences Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science**	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Visual Performing Arts	3 sh
Philosophy or Literature	3 sh
Any of the above	3 sh

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
Historical Foundation	3
Historical Foundation or other	3
Historical Foundation or other	3
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health**	3 sh
<b>Experiential Learning</b>	
EL Competency 1:	
EL Competency 2:	

<b>First Year Student Seminar</b>	<b>1 sh</b>
HLTH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>77 sh</b>
HLTH115: Human Anatomy and Physiology 1**	4 sh
#HLTH120: Human Anatomy and Physiology 2**	4 sh
#HLTH200: Introduction to Disease	3 sh
#HLTH305: Biomechanics**	3 sh
#HLTH353: Physiology of Exercise**	3 sh
#HLTH425: Clinical Exercise Physiology	3 sh
#HLTH440: Research Methods in Health Science	3 sh
#HLTH485: Field Experience in Health Science	2 sh
MATH107: Basic Statistics 1	3 sh
CHEM120: Principles of Chemistry 1**	4 sh
#CHEM121: Principles of Chemistry 2**	4 sh
#RECR205: Nutrition for Wellness**	3 sh
<b>Major Area Electives (from page 2)</b>	<b>14 sh</b>
<b>First year MS-AT courses</b>	<b>24 sh</b>

#: BOG Advanced Coursework

\*: Suggested Major Area Elective

\*\* : Core course: grade of C or higher required  
3.0 cumulative GPA required

<b>Major Area Electives</b>	
#ATTR202: Care & Prevention of Athletic Injuries*	3 sh
HLTH108: Medical Terminology	3 sh
HLTH110: Orientation to Athletic Training	1 sh
HLTH140: Introduction to Public Health	3 sh
#HLTH218: Public Health and the Environment	3 sh
#HLTH240: Introduction to Epidemiology	3 sh
#HLTH301: CPR & Emergency Care*	3 sh
#HLTH320: Drug Education	3 sh
#HLTH401: Current Health Issues	3 sh
#HLTH406: Biomechanics of Injury	3 sh
#HLTH407: Advanced Human Physiology	4 sh
#HLTH420: Clinical Evaluation & Rehabilitation	3 sh
#HLTH430: Women's Health Issues	3 sh
#HLTH451: Advanced Human Anatomy	4 sh
#HLTH470: Sex Education	3 sh
#HLTH485: Field Experience	1-4 sh
#HLTH498: Health Science Seminar	1-3 sh
#HLTH499: Independent Study	1-3 sh
PHYS130: Physics 1	4 sh
#PHYS131: Physics 2	4 sh
#PSYC240: Lifespan Development	3 sh
#PSYC307: Abnormal Psychology	3 sh
#PSYC315: Health Psychology	3 sh
RECR200: Principles of Personal Training	3 sh
#RECR301: Exercise Prescription	3 sh
#RECR302: Supervision of Strength Training Programs	3 sh
#RECR303: Sports Nutrition	3 sh
#RECR312: Teaching Conditioning Principles	3 sh
SPAN110: Basic Spanish for Medical Personnel	3 sh
#SPRT206: Introduction to Sport and Exercise Psychology	3 sh

**Health Science: Exercise Science 3+2**  
**Suggested Course Sequence**

**Fall Freshman**

BIOL106: Principles of Biology 1 (3)  
HLTH105: Introduction to Health (3)  
HLTH110: Orientation to AT (1)  
HLTH115: Anatomy & Physiology 1 (4)  
HLTH119: First Year Student Seminar (1)  
General Education (3)  
Total (15)

**Spring Freshman**

BIOL107: Principles of Biology 2 (3)  
ENGL100: Composition (3)  
HLTH120: Anatomy & Physiology 2 (4)  
PSYC100: Intro to Psychology (3)  
MATH (3)  
Total (16)

**Fall Sophomore**

CHEM120: Principles of Chemistry 1 (4)  
HLTH200: Introduction to Disease (3)  
HLTH353: Physiology of Exercise (3) OR  
HLTH305: Biomechanics (3)  
MATH107: Basic Statistics 1 (3)  
General Education (3)  
Total (16)

**Spring Sophomore**

CHEM121: Principles of Chemistry 2 (4)  
RECR205: Nutrition for Wellness (3)  
HLTH353: Physiology of Exercise (3) OR  
HLTH305: Biomechanics (3)  
Major Elective (6)  
Total (16)

**Fall Junior**

General Education (9)  
Major Elective (7)  
Total (16)

**Spring Junior**

HLTH425: Clinical Exercise Phys (3)  
HLTH440: Research Methods (3)  
HLTH485: Field Experience (2)  
Major Elective (3)  
General Education (6)  
Total (17)

**GRADUATE PROGRAM**

**Summer First Year (4 credits)**

ATTR600: Fundamentals of Athletic Training (4)

**Fall First Year (15 credits)**

ATTR630: Evidence Based Medicine (1)  
ATTR622: Functional Anatomy 1 (4)  
ATTR664: Evaluation Techniques 1 (3)  
ATTR653: Clinical Experience 1 (3)  
ATTR672: Therapeutic Interventions 1 (4)

**Spring First Year (17 credits)**

ATTR660: General Medical Conditions (3)  
ATTR642: Functional Anatomy 2 (4)  
ATTR665: Evaluation Techniques 2 (3)  
ATTR654: Clinical Experience 2 (3)  
ATTR673: Therapeutic Interventions 2 (4)

**Fall Second Year (15 credits)**

ATTR604: Administration & Organization (3)  
ATTR655: Clinical Experience 3 (3)  
HLTH632: Psychology of Injury and Illness (3)  
HLTH663: Applied Sport & Exercise Science (3)  
HLTH615: Intro to Pharmacology (3)

**Spring Second Year (9 credits)**

ATTR615: Current Issues in Athletic Training (3)  
ATTR656: Clinical Experience 4 (6)

## Health Science: Physician Assistant 3+2 - Bachelor of Science

Effective Fall 2014

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2:	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology I	3 sh
BIOL107: Principles of Biology II	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health	3 sh
<b>Experiential Learning</b>	
EL Competency 1: HLTH485	
EL Competency 2: HLTH485	

<b>Major Area and Cognate Courses</b>	<b>69 sh</b>
HLTH115: Human Anatomy and Physiology I	4 sh
HLTH120: Human Anatomy and Physiology II	4 sh
#HLTH407: Advanced Human Physiology	4 sh
#HLTH415: Introduction to Pharmacology	3 sh
#HLTH451: Advanced Anatomy	4 sh
#HLTH485: Field Experience in Health Science	1 sh
#HLTH Designated Electives	6 sh
-HLTH305: Introduction to Biomechanics (3)	
-HLTH315: Consumer Health (3)	
-HLTH320: Drug Education (3)	
-HLTH325: Death Education (3)	
-HLTH353: Physiology of Exercise (3)	
-HLTH401: Current Issues in Health (3)	
-HLTH430: Women's Health Issues (3)	
-HLTH440: Research in Health Science (3)	
-HLTH470 Sex Education (3)	
-BIOL310: Immunology (3)	
-PSYC307: Abnormal Psychology (3)	
#BIOL225: Human Genetics	3 sh
#BIOL340: Microbiology	4 sh
#CHEM111: Chemistry of Nutrition	3 sh
CHEM120: Principles of Chemistry I	4 sh
CHEM121: Principles of Chemistry II	4 sh
#CHEM205: Introduction to Organic Chemistry	4 sh
#CHEM410: Biochemistry	4 sh
#MATH107: Basic Statistics	3 sh
#PHYS130: Physics I	4 sh
#PHYS131: Physics II	4 sh
#PSYC240: Life Span Development	3 sh
#PYAS300: Introduction to Phys. Asst. Studies	3 sh

#: BOG Advanced coursework

**3+2 Physician Assistant Track  
Suggested Course Sequence**

**Fall Freshman**

BIOL106: Principles of Biology I (3)  
CHEM120: Principles of Chemistry I (4)  
HLTH115: Anatomy and Physiology I (4)  
HLTH105: Introduction to Health (3)  
General Education (3)

**Spring Freshman**

BIOL107: Principles of Biology II (3)  
CHEM121: Principles of Chemistry II (4)  
HLTH120: Anatomy and Physiology II (4)  
MATH113: Pre-calculus (3)  
PSYC100: Introduction to Psychological Sciences (3)

**Summer Session: General Education (6 sh)**

**Fall Sophomore**

CHEM205: Introduction to Organic Chemistry (4)  
MATH107: Basic Statistics (3)  
PHYS130: Physics I (4)  
PYAS300: Introduction to Physician Assistant Studies (3)  
General Education (3)

**Spring Sophomore**

BIOL225: Human Genetics (3)  
HLTH407: Advanced Human Physiology (4)  
PHYS131: Physics II (4)  
PSYC240: Life Span Development (3)  
HLTH Designated Electives (3)

**Summer Session: General Education (6 sh); HLTH485: Field Experience (1 sh)**

**Fall Junior**

BIOL340 Microbiology (4)  
CHEM111: Chemistry of Nutrition (3)  
HLTH Designated Elective (3)  
General Education (6)

**Spring Junior**

HLTH415: Introduction to Pharmacology (3)  
HLTH451: Advanced Anatomy (4)  
CHEM410: Biochemistry (4)  
General Education (3)

**Summer Session: Master of Health Science in Physician Assistant Studies**

**Fall Senior**

PYAS Module 1  
PYAS Module 2  
PYAS Module 3  
PYAS Module 4  
PYAS Module 5

**Spring Senior**

PYAS Module 6  
PYAS Module 7  
PYAS Module 8  
PYAS Module 9  
PYAS Module 10

**Summer Session: Clinical Rotations**

**Fall Senior**

Clinical Rotations

**Spring Senior**

Clinical Rotations

## Health Science: Pre-Physician Assistant - Bachelor of Science

Effective Fall 2019

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2:	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
<b>Critical Thinking</b>	
CT Competency 1:	
CT Competency 2:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
*BIOL106: Principles of Biology I	3 sh
*BIOL107: Principles of Biology II	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
GACH:	
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health	3 sh
<b>Experiential Learning</b>	
EL Competency 1:	
EL Competency 2:	

<b>Electives</b>	<b>17-19 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HLTH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>58 -60 sh</b>
*HLTH115: Human Anatomy and Physiology I	4 sh
*HLTH120: Human Anatomy and Physiology II	4 sh
#HLTH200: Introduction to Disease	3 sh
#HLTH353: Physiology of Exercise	3 sh
#HLTH407: Advanced Human Physiology OR	4 sh
#BIOL410: Organismal Physiology	3 sh
#HLTH415: Introduction to Pharmacology	3 sh
#HLTH451: Advanced Anatomy	4 sh
#HLTH485: Field Experience in Health Science	3 sh
#*BIOL225: Human Genetics	3 sh
#*BIOL340: Microbiology OR	4 sh
#*BIOL215: Basic Microbiology	3 sh
*CHEM120: Principles of Chemistry I	4 sh
*CHEM121: Principles of Chemistry II	4 sh
#CHEM205: Introduction to Organic Chemistry	4 sh
#CHEM410: Biochemistry	4 sh
#*MATH107: Basic Statistics I	3 sh
#PSYC240: Lifespan Development	3 sh
#RECR205: Nutrition for Wellness OR	3 sh
#CHEM111: Chemistry of Nutrition	

<b>4+2 Program Interview</b>
<b>Minimum Requirements</b>
GPA: 3.2 or better
B or better in courses identified by *
GRE: 300 combined score and 4/6 Writing
Complete application using <a href="http://caspaonline.org">caspaonline.org</a>

**Pre-Physician Assistant Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
BIOL106: Principles of Biology I (3)  
HLTH105: Introduction to Health (3)  
HLTH115: Anatomy and Physiology I (4)  
HLTH119: First Year Student Seminar (1)

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**Fall Sophomore (example)**

CHEM120: Principles of Chemistry I (4)  
HLTH200: Introduction to Disease (3)  
HLTH353: Physiology of Exercise (3)  
MATH107: Basic Statistics I (3)

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**Fall Junior (example)**

CHEM205: Introduction to Organic Chemistry (4)

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**Fall Senior (example)**

BIOL340: Microbiology (4)  
HLTH407: Advanced Human Physiology (4)

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**Spring Freshman (example)**

BIOL107: Principles of Biology II (3)  
HLTH120: Anatomy and Physiology II (4)  
MATH113: Pre-calculus (3)  
PSYC100: Introduction to Psychological Sciences (3)

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**Spring Sophomore (example)**

CHEM121: Principles of Chemistry II (4)  
PSYC240: Life Span Development (3)  
CHEM111: Chemistry of Nutrition OR RECR205:  
Nutrition for Wellness (3)

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**Spring Junior (example)**

HLTH415: Introduction to Pharmacology (3)  
BIOL225: Human Genetics (3)

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**Spring Senior (example)**

CHEM410: Biochemistry (4)  
HLTH451: Advanced Anatomy (4)

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**Pre-Physical Therapy Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
BIOL106: Principles of Biology I (3)  
HLTH105: Introduction to Health (3)  
HLTH119: First Year Student Seminar (1)  
HLTH115: Anatomy and Physiology I (4)  
MATH112/113: Mathematics Gen. Ed. (3)

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**Spring Freshman (example)**

BIOL107: Principles of Biology II (3)  
HLTH120: Anatomy and Physiology II (4)  
MATH113: Pre-calculus(3)  
PSYC100: Introduction to Psychological Sciences (3)

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**Fall Sophomore (example)**

CHEM120: Principles of Chemistry I (4)  
HLTH200: Introduction to Disease (3)  
HLTH305: Introduction to Biomechanics (3)

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**Spring Sophomore (example)**

CHEM121: Principles of Chemistry II (4)  
HLTH353: Physiology of Exercise (3)  
MATH107: Basic Statistics (3)  
PSYC240: Life Span Development (3)

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**Fall Junior (example)**

PHYS130: Physics I (4)  
PSYC307: Abnormal Psychology (3)

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**Spring Junior (example)**

HLTH420: Clinical Evaluation and Rehabilitation (3)  
PHYS130: Physics II (4)

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**Fall Senior (example)**

HLTH440: Research Methods in Health Science (3)  
HLTH485: Field Experience in Health Science (3)

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**Spring Senior (example)**

HLTH451: Advanced Anatomy (4)

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## Health Science: Pre-Professional - Bachelor of Science

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1:	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
<b>Critical Thinking</b>	
CT Competency 1:	
CT Competency 2:	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL106: Principles of Biology I	3 sh
BIOL107: Principles of Biology II	3 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
PSYC100: Introduction to Psychological Science	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
HLTH105: Introduction to Health	3 sh
<b>Experiential Learning</b>	
EL Competency 1:	
EL Competency 2:	

<b>Electives</b>	<b>17 sh</b>

#: BOG advanced coursework

<b>NATURAL SCIENCE</b>	<b>6 sh</b>
BIOL215: Basic Microbiology	4 sh
BIOL220: DNA Methods in Biology	1 sh
BIOL225: Human Genetics <b>OR</b>	3 sh
BIOL202: Genetics	
BIOL302: Developmental Biology	3 sh
BIOL303: Vertebrate Endocrinology	2 sh

<b>First Year Student Seminar</b>	<b>1 sh</b>
HLTH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
HLTH115: Human Anatomy and Physiology I	4 sh
HLTH120: Human Anatomy and Physiology II	4 sh
#HLTH200: Introduction to Disease	3 sh
#HLTH485: Field Experience in Health Science	3 sh
CHEM120: Principles of Chemistry I	4 sh
CHEM121: Principles of Chemistry II	4 sh
#MATH107: Basic Statistics 1	3 sh
#PHYS130: Physics I	4 sh
#PHYS131: Physics II	4 sh
#RECR205: Nutrition for Wellness <b>OR</b>	
#CHEM111: Chemistry of Nutrition	3 sh
<b>#Natural Science Designated Electives</b>	<b>6 sh</b>
(See page 2)	
<b>#Psychology Designated Electives</b>	<b>6 sh</b>
(See page 2)	
<b>#HLTH Designated Electives</b>	<b>12 sh</b>
(See page 2)	

<b>HEALTH SCIENCE</b>	<b>12 sh</b>
HLTH100: Medical Terminology	1 sh
HLTH102: Orientation to Health Science	1 sh
HLTH140: Introduction to Public Health	3 sh
HLTH204: Foundation School/Comm. Health	3 sh
HLTH208: Stress Management/Life Skills	3 sh
HLTH214: Plan/Assessment in School Health	2 sh

BIOL309: Ecology	3 sh
BIOL310: Immunology	3 sh
BIOL315: Comparative Vertebrate Anatomy	3 sh
BIOL317: Mycology	3 sh
BIOL323: Bioinformatics and Genomics	3 sh
BIOL330: Cellular and Molecular Biology	4 sh
BIOL340: Microbiology	4 sh
BIOL345: Advanced DNA Methods	3 sh
BIOL402: Biological Evolution	3 sh
BIOL410: Organismal Physiology	3 sh
BIOL425: Environmental Toxicology	3 sh
CHEM105: Forensic Chemistry	3 sh
CHEM111: Chemistry of Nutrition (May be used if RECR205 is completed)	3 sh
CHEM205: Introduction to Organic Chemistry	4 sh
CHEM220: Organic Chemistry I	4 sh
CHEM221: Organic Chemistry II	4 sh
CHEM301: Inorganic Chemistry	3 sh
CHEM316: Quantitative Analysis	4 sh
CHEM320: Physical Chemistry	4 sh
CHEM410: Biochemistry	4 sh
CHEM415: Biochemistry 2	4 sh

<b>PSYCHOLOGY</b>	<b>6 sh</b>
PSYC102: Child Development	3 sh
PSYC103: Adolescent Development	3 sh
PSYC111: Psychology of Early Childhood	3 sh
PSYC202: Research Methods in Psychology	3 sh
PSYC212: Forensic Psychology	3 sh
PSYC215: Foundation of Biopsychology	3 sh
PSYC235: Interpersonal Leadership Skills	3 sh
PSYC240: Life Span Development	3 sh
PSYC250: Social Psychology	3 sh
PSYC307: Abnormal Psychology	3 sh
PSYC310: Cognitive Psychology	3 sh
PSYC315: Health Psychology	3 sh
PSYC322: Drugs and Human Behavior	3 sh
PSYC330: Adult Development and Aging	3 sh
PSYC410: Physiological Psychology	3 sh
PSYC412: Human Neuropsychology	3 sh
PSYC205: Applied Psychological Statistics	3 sh
PSYC425: Psychology of Women	3 sh

HLTH218: Public Health and the Environment	3 sh
HLTH235: Community Health Strategies	3 sh
HLTH240: Introduction to Epidemiology	3 sh
HLTH301: CPR and Emergency Care	3 sh
HLTH305: Introduction to Biomechanics	3 sh
HLTH307: Cultural Aspects of Health	3 sh
HLTH315: Consumer Health	3 sh
HLTH320: Drug Education	3 sh
HLTH325: Death Education	3 sh
HLTH330: School Health Programs	2 sh
HLTH332: Psychological Aspects Inj./Illness	3 sh
HLTH350: Health Program Planning	3 sh
HLTH353: Physiology of Exercise	3 sh
HLTH363: Applied Sport and Exercise Science	3 sh
HLTH401: Current Issues In Health	3 sh
HLTH402: Evaluation In Health Ed. Programs	3 sh
HLTH406: Biomechanics of Mus./Skel. Injury	3 sh
HLTH407: Advanced Human Physiology	4 sh
HLTH414: Current Issues in Exercise Science	3 sh
HLTH415: Introduction to Pharmacology	3 sh
HLTH420: Clinical Evaluation and Rehab.	3 sh
HLTH425: Clinical Exercise Physiology	3 sh
HLTH430: Women's Health Issues	3 sh
HLTH440: Research in Health Science	3 sh
HLTH451: Advanced Human Anatomy	4 sh
HLTH470: Sex Education in Health Science	3 sh
HLTH485: Field Experience in Health Science	1-9 sh
HLTH498: Health Science Seminar	1-3 sh
HLTH499: Independent Study	1-3 sh

**Pre-Professional Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
BIOL106: Principles of Biology I (3)  
HLTH105: Introduction to Health (3)  
HLTH115: Anatomy and Physiology I (4)  
HLTH119: First Year Student Seminar (1)

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**Spring Freshman (example)**

BIOL107: Principles of Biology II (3)  
HLTH120: Anatomy and Physiology II (4)  
MATH112/113: Mathematics Gen. Ed.(3)  
PSYC100: Introduction to Psychological Sciences (3)

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**Fall Sophomore (example)**

CHEM120: Principles of Chemistry I (4)  
HLTH200: Introduction to Disease (3)

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**Spring Sophomore (example)**

CHEM121: Principles of Chemistry II (4)  
RECR205: Nutrition for Wellness (3) **OR**  
CHEM111: Chemistry of Nutrition (3)

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**Fall Junior (example)**

PHYS130: Physics I (4)  
MATH107: Basic Statistics (3)

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**Spring Junior (example)**

PHYS131: Physics II (4)

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**Fall Senior (example)**

HLTH451: Advanced Anatomy (4)  
HLTH485: Field Experience in Health Science (3)

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**Spring Senior (example)**

HLTH407: Advanced Human Physiology (4)

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## Healthcare Professions: Social Services – Associate of Applied Science

The General Education requirements that became effective fall 2014 apply.  
Refer to the General Education section of the catalog.

SOCIAL SERVICES TRACK	31sh	Gr	Sem
SOCW102: Introduction to Social Work(3sh)			
SOCW110 Diverse Populations and Groups (3sh)			
PSYC235: Interpersonal and Leadership Skills (3sh)			
PSYC240: Lifespan Development (3sh)			
COMP 150: Introduction to Computers (3sh)			
HLTH 100: Medical Terminology (1sh)			
Electives (15sh)- must be selected from the list below	15	See below	See below

ELECTIVES (must choose 5) (15sh)	15 sh	Gr	Sem
HLTH307: Cultural Aspects of Health (3sh)			
HLTH320: Drug Education (3sh)			
HLTH325/SOCW360: Death Education/Death and Dying (3sh)			
HLTH470: Sex Education for the Health Sciences (3sh)			
HLTH498: Health Science Seminar (3sh)			
PSYC102: Child Development (3sh)			
PSYC103: Adolescent Development (3sh)			
PSYC201: Educational Psychology (3sh)			
SOCW450: Topics in Social Work (3sh)			
SOCI203: Social Problems (3sh)			
SPEC204: Cognitive Development of Diverse Learners (3sh)			
SPEC212: Low Incidence Disabilities Support (3sh)			
SPEC338: Positive Behaviors Support (3sh)			

## History – Bachelor of Arts

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	3 sh
ENGL100: Composition (3 sh)	
WC competency 1	
WC competency 2	
<b>Oral Communication</b>	3 sh
<b>Mathematical and Computational Thinking</b>	3 sh.
<b>Critical Thinking</b>	
CT competency 1	
CT competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh
Visual or Performing Arts course (3)	
Philosophy or Literature (3)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	9 sh
Historical Foundation: HIST101, 102, 111, or 112*	
*Students who become history majors after taking HIST101 may substitute this course for HIST111; similarly, HIST102 may substitute for HIST112	
<b>Wellness</b>	3 sh
<b>Experiential Learning (2 units)</b>	
EL competency 1	
EL competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Seminar</b>	<b>1 sh</b>
HIST119: First Year Seminar	

<b>Major Area and Cognate Courses</b>	<b>42 sh*</b>
<b>Supporting Social Science Courses</b>	12 sh
Economics	
Geography	
Political Science	
Sociology or Anthropology	
# Anthropology 200+	
# Soci., Pol Sci, Geog. or Econ. 200+	

<b>Foundation History Courses</b>	9 sh
HIST111 Global History I	(GAC-H)
HIST112 Global History II	(GAC-H)
HIST201 U.S. History I	
HIST202 U.S. History II	
# HIST200 Historical Thinking and Writing	

<b>Advanced History Courses (200-400 level)</b>	21 sh
# US	
# Europe	
# Non-west (non-US or Europe)	
# Non-west (non-US or Europe)	
# Elective	
# Elective	
# Capstone (Senior Project)	

Students are encouraged to use advanced history electives to focus on a particular area in preparation for the Capstone

\*A minimum of 12 sh of the major also fulfill requirements in the general education program:  
 Global Awareness and Citizenship (6 sh)  
 Hist. Behav. And Soc. Sci Inquiry (6 sh)

<b>Degree requirements:</b>	<b>up to 18sh</b>
<b>##Arts &amp; Sciences Seminars (2 of 3)</b>	6sh
Humanities 328	
Social Science 328	
Science/Math 328	
<b>###Foreign Language Requirement (Level-IV proficiency)</b>	up to 12sh

<b>Total credit hours</b>	<b>120</b>
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## History: Public History – Bachelor of Arts

Effective: Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	3 sh
ENGL100: Composition (3 sh)	
WC competency 1	
WC competency 2	
<b>Oral Communication</b>	3 sh
<b>Mathematical and Computational Thinking</b>	3 sh.
<b>Critical Thinking</b>	
CT competency 1	
CT competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh
Absorbed by the major	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh
Visual or Performing Arts course (3)	
Philosophy or Literature (3)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	9 sh
(6 sh absorbed by the major)	
<b>Wellness</b>	3 sh
<b>Experiential Learning</b>	
EL competency 1	
EL competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HIST119: First Year Seminar	

<b>Major Area and Cognate Courses</b>	<b>42 sh*</b>
<b>Supporting Social Science Courses</b>	15 sh
Economics, Geography, Political Science, Sociology, or Anthropology	HBS HBS
1	
2	
3	
#POLI260: Public Administration	
#Anthropology 200+	

<b>Foundation History Courses</b>	9 sh
HIST111: Global History I	GAC-H
HIST112: Global History II	GAC-H
HIST201: U.S. History I	
HIST202: U.S. History II	
# HIST200: Historical Thinking and Writing	

<b>Advanced History Courses (200-400 level)</b>	12 sh
# US	
# Europe	
# Non-west (non-US or Europe)	
# Non-west (non-US or Europe)	

<b>Public History Concentration</b>	12 sh
# HIST203: Intro. Public History	
# Elective: HIST314: Oral History or HIST338: Hist. and Pres. Am. Architecture	
## Internship (6 sh)	
*12 sh of the major also fulfill requirements for general education: 6 sh Global Awareness and Citizenship and 6 sh Historical Behavioral and Social Science	

<b>Degree requirements:</b>	<b>up to 18sh</b>
<b>##Seminars (2 of 3)</b>	6sh
Humanities 328	
Social Science 328	
Science/Math 328	
<b>###Foreign Language Requirement (Level-IV proficiency)</b>	up to 12sh
<b>Total credit hours</b>	<b>120</b>





## International Studies – Bachelor of Arts

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	3 sh
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	3 sh
<b>Mathematical and Computational Thinking</b>	3 sh
MATH107: Basic Statistics I (3 sh)	
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh
Visual or Performing Arts course (3 sh)	
Philosophy or Literature (3 sh)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	9 sh
HIST102, HIST112 or HONR102 REQUIRED	
<b>Wellness</b>	3 sh
<b>Experiential Learning (2 units)</b>	
EL Competency 1	
EL Competency 2	
<b>Total General Education Credits</b>	<b>42</b>

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
POLI119: First Year Student Seminar	

<b>Major Area and Cognate Courses</b>	<b>42 sh</b>
<b>Core Requirements (take 4 of the following):</b>	12 sh*
POLI107: World Politics	
ANTH102: Cultural Anthropology	
ECON102: Introduction to Macroeconomics	
ECON103: Introduction to Microeconomics	
GEOG101: World Regional Geography	
HIST101: World History I OR	
HIST111: Global History I	

<b>Track Concentration</b>	<b>30 sh</b>
Please choose from the following tracks (requirements listed on back): Cultural Studies, Governance and Conflict, Global Economy	
#	
#	
#	
#	
#	
#	
#	
#	
#	

<b>Non-credit Requirements</b>	
<b>Study Abroad experience **</b>	
Country:	
**minimum 10 days out of US. Credits will be applied to the track concentration as appropriate	

<b>Portfolio (must be approved by academic advisor)</b>	
Review 1	
Review 2	
Capstone (end of senior year)	

<b>Degree requirements:</b>	<b>up to 18 sh</b>
<b>##Seminars (2 of 3)</b>	6 sh
Humanities 328	
Social Science 328	
Science/Math 328	
<b>Foreign Language Requirement</b>	up to 12sh
<b>###(Level-IV proficiency)</b>	
<b>Total credit hours</b>	<b>120</b>

**Cultural Studies Track**

<p>Language and culture (9 sh)          May be met by taking language courses beyond level IV in the first foreign language; culture or politics courses in the country/region of the first foreign language; or by language (any level) or culture course in a second language; or by a combination of the foregoing.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Fine arts (6 sh) – must be non-US Art, Theatre or Music</p> <p>_____</p> <p>_____</p>	<p>Non-US Literature: 200 level or above (6 sh)</p> <p>_____</p> <p>_____</p> <p>Ethnography (3 sh) _____ (choose from below)          ANTH328 Anthropology of Women          ANTH422 Anthropology of Latin America          ANTH424 Anthropology of the Middle East</p> <p>Non-US History (6 sh)</p> <p>_____</p> <p>_____</p>
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**Governance and Conflict Track**

<p>History – non-US (6 sh) _____</p> <p>_____</p> <p>POLI205 Comparative Politics (3sh)          POLI250 American Foreign Policy (3 sh)          POLI350 Internat’l Relations (3 sh)</p> <p>ECON355 Int’l Trade &amp; Fin. (3 sh) OR          POLI322 International Political Economy</p> <p>International Relations Electives (12 sh) (see electives right)</p> <p>_____</p> <p>_____</p>	<p>Electives:</p> <p>Non-US History          GEOG212 Geography of the Developing World          GEOG315 Political Geography          POLI105 American National Government          POLI308 African Politics          POLI315 Politics in Developing Nations          POLI320 Latin American Politics          POLI335 Politics of Global Health          POLI370 UN and International Organizations</p>
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**Global Economy Track**

<p>History – non-US (3 sh) _____</p> <p>ECON102 Introduction to Macroeconomics (3 sh) OR          ECON103 Introduction to Microeconomics (3 sh)  <i>(if not taken as a core course)</i></p> <p>GEOG440 Economic Geography (3 sh)          ECON340 Money and Banking (3 sh)</p> <p>ECON355 Int’l Trade &amp; Finance (3 sh) OR          POLI322 Int’l Political Economy (3 sh)</p> <p>Global Econ. Electives (12 sh) (see electives right)</p> <p>_____</p> <p>_____</p>	<p>Electives:</p> <p>HIST311 International Business History          HIST390 Contemporary World Problems          POLI205 Comparative Politics          POLI308 African Politics          POLI315 Politics in Developing Nations          POLI320 Latin American Politics          POLI350 International Relations          ECON310 Intermediate Macroeconomics          ECON315 Intermediate Microeconomics          ECON330 Economic Development          ECON350 Comparative Economic Systems          GEOG212 Geography of the Developing World          GEOG305 Conservation of Natural Resources</p>
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**Mathematics – Bachelor of Science**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
MATH119: First Year Student Seminar (1)  
MATH141: Calculus 1 (3) [MCT]  
Hist., Behav., and Soc. Sci. (3) [HBS]  
Natural Science (3) [NS]  
Philos., Literary, and Aesth. (3) [PLA]

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Credit Total: 16

**Spring Freshman (example)**

#MATH142: Calculus 2 (3)  
#MATH205: Foundations of Math (3)  
Philos., Literary, and Aesth. (3) [PLA]  
Oral Communication (3) [OC]  
Wellness (3) [WEL]

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Credit Total: 15

**Fall Sophomore (example)**

#MATH243: Calculus 3 (3)  
#COMP160: Programming 1 (3)  
Natural Science with Lab (3) [NS]  
Elective (3) [CT]  
Global Aware. And Citiz. (3) [GAC]

Credit Total: 15

**Spring Sophomore (example)**

#MATH244: Calculus 4 (3)  
#MATH225: History of Math (3) [WC]  
#MATH311: Elem. of Linear Alg (3)  
#COMP161: Programming 2 (3)  
Global Aware. And Citiz. (3) [GAC]

Credit Total: 15

**Fall Junior (example)**

#MATH302: Number Theory (3)  
#MATH307: Foundations of Geom. (3)  
Philos., Literary, and Aesth. (3) [PLA]  
Global Aware. And Citiz. (3) [GAC]  
Elective (3) [CT]

Credit Total: 15

**Spring Junior (example)**

#MATH310: Modern Algebra 1 (3)  
#MATH320: Linear Programming (3)  
Elective (3) [WC]  
Elective (3) [EL]  
Elective (3)

Credit Total: 15

**Fall Senior (example)**

#MATH401: Real Analysis 1 (3)  
#MATH301: Differential Equations (3)  
Elective (2) [EL]  
Hist., Behav., and Soc. Sci. (3) [HBS]  
#MATH313: Mathematical Stats (3)

Credit Total: 14

**Spring Senior (example)**

#MATH3XX or 4XX elective (3)  
#MATH312: Prob and Stats (3)  
Elective (3)  
Elective (3)  
Elective (3)

Credit Total: 15

## Mathematics: Actuarial Science - Bachelor of Science

Effective Fall 2017

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	3 sh
WC Competency 1 suggested: (MATH225: History of Mathematics)	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
#MATH141: Calculus 1	3 sh
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (at least one lab)</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
ECON102: Principles of Macroeconomics	3 sh
ECON103: Principles of Microeconomics	3 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Aesthetics:	
Philosophy/Literature:	
PLA:	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
(at least one with GAC-Historical Foundation)	
GAC:	
GAC:	
GAC-H:	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>18 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
MATH119: First Year Student Seminar	1 sh

<b>Major Area and Cognate Courses</b>	<b>59 sh</b>
<b>Major Required Courses</b>	<b>36 sh</b>
#COMP160: Programming 1	3 sh
#MATH142: Calculus 2	3 sh
#MATH205: Foundations of Mathematics	3 sh
#MATH243: Calculus 3	3 sh
#MATH244: Calculus 4	3 sh
#MATH301: Differential Equations	3 sh
#MATH311: Elements of Linear Algebra	3 sh
#MATH312: Probability and Statistics	3 sh
#MATH313: Mathematical Statistics	3 sh
#MATH412: Actuarial Mathematics	3 sh
#MATH422: Applied Statistics	3 sh
#ACCT110: Financial Accounting	3 sh

<b>One of the Following Courses</b>	<b>2 sh</b>
#MATH369: Internship	2 sh
#MATH499: Independent Study	2 sh

<b>Three of the Following Courses</b>	<b>9 sh</b>
#MATH302: Number Theory	3 sh
#MATH307: Foundations of Geometry	3 sh
#MATH310: Modern Algebra 1	3 sh
#MATH320: Linear Programming	3 sh
#MATH350: Numerical Methods	3 sh
MATHX59: Special Topics in Mathematics	3 sh
#MATH401: Real Analysis 1	3 sh

<b>Four of the Following Courses</b>	<b>12 sh</b>
#ACCT335: Intermediate Accounting 1	3 sh
#ACCT340: Intermediate Accounting 2	3 sh
#ECON310: Intermediate Macroeconomics	3 sh
#ECON315: Intermediate Microeconomics	3 sh
#ECON320: American Public Finance	3 sh
#ECON330: Economic Development	3 sh
#ECON340: Money and Banking	3 sh
#ECON355: International Trade and Finance	3 sh
#ECON360: Current Economic Problems	3 sh
#ECON410: Econometrics	3 sh
#ECON415: Mathematical Economics	3 sh
#MANG325: Financial Management	3 sh
#MANG326: Fundamentals of Investment Management	3 sh

# BOG Advanced Coursework

**Actuarial Science Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
MATH119: First Year Student Seminar (1)  
MATH141: Calculus 1 (3) [MCT]  
ECON102: Principles of Macro. (3) [HBS]  
Natural Science (3) [NS]  
Philos., Lit., and Aesth. (3) [PLA]

Credit Total: 16

**Spring Freshman (example)**

MATH142: Calculus 2 (3)  
MATH205: Foundations of Math. (3)  
Philos., Lit., and Aesth. (3) [PLA]  
Oral Communication (3) [OC]  
Wellness (3) [WEL]

Credit Total: 15

**Fall Sophomore (example)**

MATH243: Calculus 3 (3)  
COMP160: Programming 1 (3)  
ECON103: Principles of Micro. (3) [HSB]  
ACCT110: Financial Accounting (3)  
Global Aware. And Citiz. (3) [GAC-H]  
Credit Total: 15

**Spring Sophomore(example)**

MATH244: Calculus 4 (3)  
MATH312: Prob. and Stat. (3)  
MATH311: Elem. Of Linear Alg. (3)  
Philos., Lit., and Aesth. (3) [PLA]  
MATH225: History of Math. (3) [WC]  
Credit Total: 15

**Fall Junior (example)**

MATH313: Mathematical Stat. (3)  
Natural Science (with Lab) (3) [NS]  
Math Elective (3)  
Global Awareness and Citiz (3) [GAC]  
Elective (3) [WC]  
Credit Total: 15

**Spring Junior (example)**

MATH412: Actuarial Mathematics (3)  
MATH422: Applied Statistics (3)  
ACCT, ECON, MANG (3)  
Elective (3) [CT]  
ACCT, ECON, MANG (3)  
Credit Total: 15

**Fall Senior (example)**

ACCT, ECON, MANG (3)  
ACCT, ECON, MANG (3)  
MATH301: Differential Equations (3)  
MATH401:Real Analysis 1 (3)  
Elective (3) [EL]  
Credit Total: 15

**Spring Senior (example)**

Global Aware. And Citiz. (3) [GAC]  
MATH369 Internship (2) [EL]  
Elective (3) [CT]  
ACCT, ECON, MANG (3)  
Elective (3)  
Credit Total: 14





**3+2 BS in Mathematics / MS in Actuarial Science**  
**Suggested Course Sequence**

**Undergraduate Program**

**Fall Freshman**

ENGL100: Composition [WC] (3)  
MATH119: First Year Student Seminar (1)  
MATH141: Calculus 1 [MCT] (3)  
ECON102: Princ. of Macroecon. [HBS] (3)  
Natural Science [NS] (3)  
Philos., Literacy, and Aesthetics [PLA] (3)  
Elective (2)

Credit Total: 18

**Spring Freshman**

MATH142: Calculus 2 (3)  
MATH205: Foundations of Math. (3)  
Philos. Literacy, and Aesthetics [PLA] (3)  
Wellness [WEL] (3)  
Natural Science [NS] (3)  
Global Aware. and Citizenry [GAC] (3)

Credit Total: 18

**Fall Sophomore**

MATH243: Calculus 3 (3)  
COMP160: Programming 1 (3)  
ECON103: Princ. Of Microecon. [HBS] (3)  
ACCT110: Financial Accounting (3)  
Global Aware. And Citizenry [GAC-H] (3)  
Elective [EL] (3)

Credit Total: 18

**Spring Sophomore**

MATH244: Calculus 4 (3)  
MATH312: Prob. And Stat. (3)  
MATH412: Act. Math OR  
MATH311: Elem. of Lin. Algebra (3)  
Philos., Literacy and Aesthetics [PLA] (3)  
ACCT, ECON, MANG Elective [CT] (3)

Credit Total: 18

**Fall Junior**

Global Aware. and Citizenry [GAC] (3)  
MATH301: Diff. Equations (3)  
ACCT, ECON, MANG (3)  
MATH Elective (3)  
ACCT, ECON, MANG (3)  
Elective [WC] (3)

Credit Total: 18

**Spring Junior**

MATH412: Actuarial Math OR  
MATH311: Elem. of Linear Algebra (3)  
MATH225: History of Math. [WC] (3)  
ACCT, ECON, MANG (3)  
Oral Communication [OC] (3)  
Elective [EL] (3)  
Elective [CT] (3)

Credit Total: 18

**Graduate Program**

**Fall 4<sup>th</sup> Year**

MATH605: Probability (3)  
MATH610: Financial Mathematics (3)  
ACCT6XX: Financial and Man. Acct. (3)

Credit Total: 9

**Spring 4<sup>th</sup> Year**

MATH6XX: Mathematical Statistics (3)  
MATH6XX: Regression Analysis and Statistical Models (3)

FINA6XX: Corporate Finance (3)

Credit Total: 9

B.S. Degree awarded

**Fall 5<sup>th</sup> year**

MATH6XX: Time Series and For. (3)  
MATH6XX: Actuarial Models and Life Data Analysis (3)  
FINA6XX: Financial Risk Management (3)

Credit Total: 9

**Spring 5<sup>th</sup> year**

MATH6XX: Internship /  
Capstone Project (3)

Credit Total: 3

## Music - Bachelor of Arts

Effective Fall 2014

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	3 sh
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	3 sh
<b>Mathematical and Computational Thinking</b>	3 sh.
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	
<b>Knowledge and Inquiry</b>	<b>21sh</b>
<b>Natural Science Inquiry</b>	6 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	6 sh
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	9 sh
MUSI 101 Intro to Music	3 sh
MUSI 103 Basic Musicianship	3 sh
Choose one Additional Course from PLA	3 sh
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship - One course must satisfy the historical foundations competency.</b>	9 sh
<b>Wellness</b>	3 sh
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	
<b>Total Gen Ed Requirements</b>	<b>42 sh</b>
<b>Seminars- Two of three required from the following:</b>	
<b>Humanities (328)</b>	<b>6 sh</b>
<b>Social Sciences (328)</b>	
<b>Science/Math (328)</b>	
<b>Foreign Language Requirement</b>	<b>12 sh</b>
<b>Electives</b>	<b>18 sh</b>
<b>Total University Requirements</b>	<b>78 sh</b>

<b>First Year Student Seminar (VAPA119)</b>	<b>1 sh</b>
<b>(or equivalent)</b>	
<b>Major Area Courses</b>	<b>42 sh</b>
<b>Applied Music*</b>	<b>8 sh</b>
<b>Major Performance Area</b>	
MUSI 121 Applied Music	1 sh per semester
<b>Music History and Literature</b>	<b>6 sh</b>
MUSI 312 Music from 1450-1800	2 sh
MUSI 313 Music of the Romantic Period	2 sh
MUSI 314 Twentieth Century Music	2 sh
<b>Music Theory</b>	<b>7 sh</b>
MUSI 203 Music Theory I	2 sh
MUSI 204 Music Theory II	2 sh
MUSI 322 Music Theory III	3 sh
<b>REQUIRED SUPPORTING COURSES - 7 required</b>	<b>7 sh</b>
MUSI 205 Music Technology	3 sh
MUSI 109 Group Piano I	2 sh
MUSI 210 Group Piano II	2 sh
<b>ELECTIVES – 6 required</b>	<b>6 sh</b>
MUSI 105 Exploring Contemporary Trends	3 sh
MUSI 108 Music Explorations	2 sh
MUSI 120 Music Literature	1 sh
MUSI 305 Jazz Studies	2 sh
MUSI 308 Music Marketing	2 sh
MUSI 315 American Music	3 sh
MUSI 319 Symphonic Music	3 sh
MUSI 320 Music for the Theatre	3 sh
MUSI 328 Seminar: Ethnic Music	3 sh
MUSI 343 Orchestration	3 sh
MUSI XXX Applied Pedagogy	3 sh
Independent Study	1/2/3 sh
<b>Total Required Courses</b>	<b>42 sh</b>

**Additional requirements:** \*As an extension of the Applied Music/Major Performance Area, each BA Music Major will be required to attend and perform in student recitals. Students may also be required by their instructor to attend other concerts. Also, every BA major must present a Senior Recital featuring a minimum of 30 minutes' worth of music which has been learned during their study at LHU. Approval of the Recital is conditional upon successful completion of a pre-recital Jury performance for the music faculty, no later than one month before the intended recital date.

## Music: Marketing – Bachelor of Arts

### General Education Requirements

The General Education requirements that became effective fall 2014 apply. Refer to the General Education section of the catalog.

### Major Requirements

Marketing	15.0 sh
MRKT200 Introduction to Marketing	3.0 sh
MRKT300 Consumer Marketing	3.0 sh
MRKT305 Internet Marketing and e-Commerce	3.0 sh
MRKT310 Entrepreneurial and Small Business Marketing	3.0 sh
MRKT410 Marketing Research	3.0 sh
Music History Literature	4.0 sh
MUSI400 Music History after 1750	2.0 sh
MUSI312 Music History to 1750	2.0 sh
Applied Instruction	8.0 sh
MUSI121 or a combination of MUSI121/122	8.0 sh
Methods Courses	7.0 sh
MUSI124 Percussion Methods	1.0 sh
MUSI128 String Methods – Upper Strings	1.0 sh
MUSI118 String Methods – Lower Strings	1.0 sh
MUSI119 Woodwind Methods – Concert Winds	1.0 sh
MUSI129 Woodwind Methods – Transposing Winds	1.0 sh
MUSI326 Brass Methods – Lower Brass	1.0 sh
MUSI336 Brass Methods – Upper Brass	1.0 sh
Required Supporting Courses	23.0 sh
MUSI108 Music Explorations	2.0 sh
MUSI109 Group Piano 1	1.0 sh
MUSI109 Group Piano 2	1.0 sh
MUSI203 Theory 1	2.0 sh
MUSI204 Theory 2	2.0 sh
MUSI111-116 Ensembles	8.0 sh
MUSI205 Music Technology	1.0 sh
MUSI105 Contemporary Trends	3.0 sh
MUSI3 – Music Marketing	3.0 sh

A pretest will be given to those enrolled in the Music Marketing major to see if there are deficiencies in music history or music theory or both. Those students showing such deficiency will need to enroll in either MUSI101 Introduction to Music or MUSI103 Basic Musicianship or both.

## Music: Popular Music and Jazz – Bachelor of Arts

For Students entering LHU Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
MUSI101: Introduction to Music	3 sh
MUSI105: Exploring Contemporary Trends	3 sh
PLA Course: Literature or philosophy	3 sh
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship – One course must satisfy the historical foundation competency.</b>	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	
<b>Total Gen Ed Requirements</b>	<b>42 sh</b>

<b>Electives</b>	<b>17 sh</b>

<b>Total University Requirements</b>	<b>77 sh</b>
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<b>First Year Student Seminar</b>	<b>1 sh</b>
VAPA119: First Year Student Seminar	

<b>Major Area and Cognate Courses</b>	<b>42 sh</b>
<b>Applied Music</b>	<b>8</b>
<b>Major performance area.....</b>	
<b>Music History and Literature</b>	<b>6</b>
MUSI308: Jazz Studies	3
MUSI309: History Rock Music	3
<b>Music Theory</b>	<b>8</b>
MUSI103: Basic Musicianship.	3
MUSI203: Music Theory I	2
MUSI306: Popular Music and Jazz Theory	3
<b>ENSEMBLES - 8 required</b>	<b>8</b>
MUSI111-116: Music Ensemble Performance	
<b>REQUIRED SUPPORTING COURSES – 8 required</b>	<b>8</b>
MUSI109: Group Piano I	2
MUSI205: Music Technology	
MUSI308: Music Marketing	3
<b>ELECTIVES – 4 required</b>	<b>4</b>
MUSI108: Music Explorations	2
MUSI120: Music Literature	1
MUSI204: Music Theory II	2
MUSI210: Group Piano II	2
MUSI314: 20th Century Music	3
MUSI315: American Music	3
MUSI320: Music for the Theatre	3
MUSI322: Music Theory III	3
MUSI328: Seminar: Ethnic Music	3
MUSI343: Orchestration	3

<b>Seminars: Two required from the following: Humanities, Social Science, Science/Math</b>	<b>6 sh</b>
<b>Foreign Language Requirement</b>	<b>12 sh</b>
<b>Total Credits</b>	<b>120</b>

## Music - Bachelor of Fine Arts

Effective Fall 2014

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	
<b>Knowledge and Inquiry</b>	<b>21sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
MUSI 101 Intro to Music	3 sh
MUSI 103 Basic Musicianship	3 sh
Choose one Additional Course from PLA	3 sh
<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship - One course must satisfy the historical foundations competency.</b>	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	
<b>Total Gen Ed Requirements</b>	<b>42 sh</b>
<b>Seminars - Two of three required from the following:</b> <b>Humanities (328)</b> <b>Social Sciences (328)</b> <b>Science/Math (328)</b>	<b>6 sh</b>
<b>Foreign Language Requirement</b>	<b>12 sh</b>
<b>Electives</b>	<b>18 sh</b>
<b>Total University Requirements</b>	<b>78 sh</b>

<b>First Year Student Seminar (VAPA119)</b> <b>(or equivalent)</b>	<b>1 sh</b>
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<b>Major Area Courses</b>	<b>54 sh</b>
<b>Applied Music*</b> <b>Major Performance Area</b>	<b>16 sh</b>
MUSI 122 Applied Music	2 sh per semester
<b>Music History and Literature</b>	<b>6 sh</b>
MUSI 312 Music from 1450-1800	2 sh
MUSI 313 Music of the Romantic Period	2 sh
MUSI 314 Twentieth Century Music	2 sh
<b>Music Theory</b>	<b>12 sh</b>
MUSI 203 Music Theory I	2 sh
MUSI 204 Music Theory II	2 sh
MUSI 206 Sight Singing	2 sh
MUSI 322 Music Theory III	3 sh
MUSI 323 Music Theory IV	3 sh
<b>ENSEMBLES - 8 required, minimum one per semester</b>	<b>8 sh</b>
MUSI 111-116 Music Ensemble Performance	
<b>Group Piano</b>	<b>4 sh</b>
MUSI 109 Group Piano II	2 sh
MUSI 210 Group Piano II	2 sh
<i>With permission of instructor, MUSI 121 02 (applied piano) may serve as a substitute for Group Piano</i>	
<b>MAJOR ELECTIVES – 8 required</b>	<b>8 sh</b>
MUSI 105 Exploring Contemporary Trends	3 sh
MUSI 120 Music Literature	1 sh
MUSI 205 Music Technology	3 sh
MUSI 305 Jazz Studies	2 sh
MUSI 306 Popular Music and Jazz Theory	3 sh
MUSI 308 Music Marketing	2 sh
MUSI 315 American Music	3 sh
MUSI 319 Symphonic Music	3 sh
MUSI 320 Music for the Theatre	3 sh
MUSI 328 Seminar: Ethnic Music	3 sh
MUSI 343 Orchestration	3 sh
MUSI XXX Applied Pedagogy	3 sh
Independent Study	1/2/3 sh
<b>Total Required Courses</b>	<b>54 sh</b>

**Additional Rquirements**

\*As an extension of the Applied Music/Major Performance Area, each BFA Music Major will be required to attend and perform in student recitals. Students may also be required by their instructor to attend other concerts. Also, every BFA major must present a Senior Recital featuring a minimum of 45 minutes' worth of music which has been learned during their study at LHU. Approval of the Recital is conditional upon successful completion of a pre-recital Jury performance for the music faculty, no later than one month before the intended recital date.







## Physics: Applied Physics (Nanotechnology) - Bachelor of Science

Effective Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
Math141: Calculus I	3 sh
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Sciences Inquiry</b>	<b>6 sh</b>
PHYS170: Intermediate General Physics I	4 sh
PHYS171: Intermediate General Physics II	4 sh
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Student Seminar	

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<i>PHYS170/PHYS171 NSI credits</i>	2 sh
NANO105: Intro to Nanoscale Science	3 sh
#NANO210: Tools & Techniques	3 sh
#NANO304: Generation & Modification	3 sh
#NANO3XX: Characterization	3 sh
#PHYS290: Electronics	4 sh
#NANO458: Advanced Applied Nanotechnology Laboratory	6 sh
<b>total</b>	<b>22</b>
MATH142: Calculus II	3 sh
#MATH243: Calculus III	3 sh
CHEM120: Principles of Chemistry I	4 sh
<b>total</b>	<b>10</b>
#PHYS315: Modern Physics	4 sh
#PHYS330: Mechanics I	3 sh
#PHYS350: Quantum Mechanics	3 sh
#PHYS370: Electricity & Magnetism	3 sh
<b>total</b>	<b>13</b>
<i>Physics/Nano/Technical Electives (13 sh from the list of courses below)</i>	
#PHYS250: Heat	3 sh
#PHYS325: Optics	4 sh
#PHYS331: Mechanics II	3 sh
#PHYS345: Math. Methods of Physics	2 sh
#PHAP400: Modern Optoelectronics	3 sh
#PHAP410: Material Science	3 sh
#MATH301: Differential Equations	3 sh
<b>total</b>	<b>13</b>
# advanced level courses	

**Applied Physics (Nanotechnology) Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SCI119: First Year Student Seminar (1)  
MATH141: Calculus I (3)  
NANO105: Intro to Nanoscale Science (3)  
CHEM120: Principles of Chemistry I (4)

Credit Total: 14

**Spring Freshman (example)**

MATH142: Calculus II (3)  
Wellness (3)  
PHYS170: Intermed. General Physics I (4)  
NANO210: Tools & Techniques (3)  
Elective (4)

Credit Total: 17

**Fall Sophomore (example)**

PHYS171: Intermed. General Physics II (4)  
NANO304: Generation & Modification (3) or NANO 3XX  
Characterization (3)  
MATH243: Calculus III (3)  
Philosophical, Literary, and Aesthetic Inquiry (3)  
Historical, Behavioral, and Social Science Inquiry (3)

Credit Total: 16

**Spring Sophomore (example)**

PHYS330: Mechanics I (3)  
PHYS290: Electronics (4)  
Historical, Behavioral, and Social Science Inquiry (3)  
Philosophical, Literary, and Aesthetic Inquiry (3)  
Global Awareness and Citizenship (3)

Credit Total: 16

**Fall Junior (example)**

PHYS315: Modern Physics (4)  
NANO3XX: Characterization (3) or NANO304: Generation  
& Modification (3)  
Philosophical, Literary, and Aesthetic Inquiry (3)  
Elective (3)

Credit Total: 13

**Spring Junior (example)**

PHYS350: Quantum Mechanics (3)  
NANO458: Advanced Applied Nanotechnology  
Laboratory (3)  
Physics/Nano/Technical Elective (3)  
Electives (6)

Credit Total: 15

**Fall Senior (example)**

PHYS370 Electricity & Magnetism (3)  
NANO458: Advanced Applied Nanotechnology  
Laboratory (3)  
Physics/Nano/Technical Elective (3)  
Physics/Nano/Technical Elective (3)  
Global Awareness and Citizenship (3)

Credit Total: 15

**Spring Senior (example)**

Physics/Nano/Technical Elective (4)  
Global Awareness and Citizenship (3)  
  
Oral Communication (3)  
Elective (4)

Credit Total: 14



**PHYSICS: PRE-ENGINEERING Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SCI119: First Year Student Seminar (1)  
MATH141: Calculus I (3)  
CHEM120: Principles of Chemistry (4)

PHYS105: Engineering Graphics (3)  
General Education (3)

Credit Total: 17

**Spring Freshman (example)**

CHEM121: Principles of Chemistry II (4)  
MATH142: Calculus II (3)  
PHYS170: Intermediate General Physics I (4)  
ECON102: Principles of Macroeconomics or  
ECON103: Principles of Microeconomics (3)  
General Education (3)

Credit Total: 17

**Fall Sophomore (example)**

MATH211: Linear Methods (3)  
MATH243: Calculus III (3)

PHYS171: Intermediate General Physics II (4)  
COMP160: Programming I (3)  
General Education (3)

Credit Total: 16

**Spring Sophomore (example)**

MATH244: Calculus IV (3)  
PHYS290: Electronics (4)  
or PHYS325: Optics (4)  
PHYS330: Mechanics I (3)  
General Education (6)

Credit Total: 16

**Fall Junior (example)**

MATH301: Differential Equations (3)  
PHYS315: Modern Physics (4)  
PHYS331: Mechanics II (3)  
PHYS370: Electricity and Magnetism (3)  
General Education (3)

Credit Total: 16

**Spring Junior (example)**

PHYS250: Heat (3)  
PHYS345: Math. Methods of Physics (2)  
PHYS350: Quantum Mechanics (3)  
General Education (9)

Credit Total: 17

**Fall Senior (example)**

\_\_\_\_\_ at the engineering school \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Credit Total: \_\_\_\_\_

**Spring Senior (example)**

\_\_\_\_\_ at the engineering school \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Credit Total: \_\_\_\_\_



**Physics Major: Traditional Physics Track**  
**Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SCI119: First Year Student Seminar (1)  
MATH141: Calculus 1(3)  
CHEM120: Principles of Chemistry I (4)  
COMP160: Programming I (3)

Credit Total: 14

**Spring Freshman (example)**

MATH142: Calculus II (3)  
PHYS170: Intermed. Gen. Physics I (4)  
General Education (9)

Credit Total: 16

**Fall Sophomore (example)**

PHYS171: Intermed. Gen. Phys II (4)  
MATH243: Calculus III (3)  
MATH211: Lin. Methods (3)  
General Education (6)

Credit Total: 16

**Spring Sophomore(example)**

PHYS290: Electronics I (4)  
PHYS330: Mechanics I (3)  
MATH244: Calculus IV (3)  
General Education (6)

Credit Total: 16

**Fall Junior (example)**

MATH301: Differential Equations (3)  
PHYS315: Modern Physics (4)  
PHYS331: Mechanics II (3)  
General Education (4)

Credit Total: 14

**Spring Junior (example)**

PHYS250: Heat (3)  
PHYS345: Math Methods of Phys (2)  
PHYS350: Quantum Mechanics (3)  
General Education (6)

Credit Total: 14

**Fall Senior (example)**

PHYS370: Electricity & Magnetism (3)  
PHYS431: Advanced Lab (3)  
General Education (8)

Credit Total: 14

**Spring Senior (example)**

PHYS325: Optics (4)  
PHYS371: Electrodynamics (3)  
General Education (8)

Credit Total: 15

## Political Science – Bachelor of Arts

Effective: Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100 Composition (3 sh)	
WC competency 1	
WC competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107 Basic Statistics I (3 sh)	
<b>Critical Thinking</b>	
CT competency 1	
CT competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
Lab Science (3 sh)	
Lab Science (3 sh)	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
ECON102 Principles of Macroeconomics (3 sh) OR ECON103 Principles of Microeconomics (3 sh)	
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
Performing Arts course (3 sh)	
Philosophy or Literature (3 sh)	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST102 World History II (3 sh)	GAC-H
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning (2 units)</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
POLI119: First Year Seminar	

<b>Major Area and Cognate Courses</b>	<b>42 sh</b>
<b>Major Core</b>	<b>12 sh</b>
POLI105 American National Government	
POLI107 World Politics	
#POLI200 Political Inquiry	
#POLI205 Comparative Politics	
<b>Major Electives</b>	<b>15 sh</b>
#POL200+ _____	
#POLI200+ _____	
#POLI200+ _____	
#POLI200+ _____	
#POLI200+ _____	
<b>#Independent Research/Experiential Learning</b>	<b>3 sh</b>
Choose from one of the following:	
POLI369 Internship	
POLI400 Junior Senior Research Seminar	
POLI499 Independent Study	
<b>Cognate Courses</b>	<b>12 sh</b>
#328 Seminar (in area not fulfilled for BA req.)	
#PHIL (in addition to Gen. Ed.) or POLI390 or POLI391	
#HIST/PHIL/ECON/SOCI/ANTH/GEOG/PSYC 300+	
#HIST/PHIL/ECON/SOCI/ANTH/GEOG/PSYC 300+	
<b>BA Degree requirements:</b>	<b>Up to 18sh</b>
<b>##Arts &amp; Sciences Seminars (2 of 3)</b>	<b>6sh</b>
Humanities 328	
Social Science 328	
Science/Math 328	
<b>Foreign Language Requirement Level-IV proficiency</b>	<b>up to 12 sh</b>
<b>Total credit hours</b>	<b>120</b>

# denotes advanced course work

## PreK-Grade 4 - Bachelor of Science in Education

Effective Fall 2017

<b>General Education Credit Total</b>	Min Grade	<b>42 sh</b>
<b>Intellectual Foundation</b>		<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100 Composition (3 sh)	C-	
WC Competency 1 – ECED 150		✓
WC Competency 2		
<b>Oral Communication</b>	C	<b>3 sh</b>
#ECED415 Integrating Curr & Instr		✓
<b>Math &amp; Computational Thinking</b>		<b>3 sh</b>
MATH102 Number Systems	C	
<b>Critical Thinking</b>		
CT Competency 1 – ECED493		✓
CT Competency 2 – ECED494		✓

<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry (one w/ a lab)</b>	C-	<b>6 sh</b>
<b>Hist., Behav., &amp; Social Science Inquiry</b>		<b>6 sh</b>
PSYC102 Child Development	C	
<b>Phil., Literary, &amp; Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110 Introduction to Literature	C-	
3sh in Visual & Performing Art required		
<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
ECED150 Diversity in ECED	C	✓
3sh Historical Foundations Competency		
<b>Wellness</b>		<b>3 sh</b>
HPED245 Health and PE Elem School		
<b>Experiential Learning</b>		
EL Competency 1 – ECED493		✓
EL Competency 2 – ECED494		✓

<b>Electives</b>		<b>6 sh</b>

<b>Major Coursework Credit Total</b>	Min Grade	<b>72 sh</b>
<b>First Year Student Seminar</b>		<b>1 sh</b>
ECED119 First Year Seminar	CR*	

<b>Major Area and Cognate Courses</b>	Min Grade	
<b>Professional Education</b>		<b>18 sh</b>
MATH115 Statistics and Geometry	C	
PSYC201 Educational Psychology	C	
SPEC204 Cognitive Dev of Diverse Learners	C	
#SPEC309 Effective Instructional Strategies	C	
#SPEC345 Lit Instruction for Stud w/Dis	C	
<b>Required PreK-Grade 4/ECED Coursework</b>		<b>29 sh</b>
ECED100 Intro. Early Childhood Education	C	
ECED150 Diversity in ECED (GAC)	C	
ECED200 Observing and Assessing	C	
ECED204 Primary Reading	C	
ECED212 Language Development	C	
ECED220 Emerging Mathematics & Science	C	
ECED225 Beginning Literacy	C	
ECED230 Prof. Comm. and Family Collab.	C	
ECED240 Special Topics in ECED (2 s.h)	C	
#ECED325 Assessment & Evaluation in ECED	C	
#ECED326 Guidance and Classroom Management	C	
#ECED332 Developing Creative Expression	C	
<b>PreK-Grade 4/ECED Professional Semester</b>		<b>12 sh</b>
#ECED415 Integrating Curriculum & Instruct (OC)	C	
#ECED431 Science for Young Children	C	
#ECED432 Lang. Arts & Reading for Yng Children	C	
#ECED433 Math Methods for Grades K-4	C	
#ECED436 Social Studies for Young Children	C	
<b>Student Teaching</b>		<b>12sh</b>
#ECED493 Student Teaching and Practicum	C	
#ECED494 Student Teaching and Practicum	C	

\* Credit/no credit

# Upper division courses

✓ Met in course requirements



PreK-Grade 4 Major  
Suggested Course Sequence

<b>Fall Freshman</b>	<b>Spring Freshman</b>
ENGL100 Composition ECED119 First Year Student Seminar PSYC102 Child Development MATH102 or MATH115	ECED100 Intro. to Early Childhood Education ECED150 Diversity in Early Childhood Education MATH 102 or MATH115 ENGL110 Introduction to Literature
2 General Education Courses	1 General Education Course
<b>Credit Total: 16</b>	<b>Credit Total: 15</b>
<b>Fall Sophomore</b>	<b>Spring Sophomore</b>
ECED212 Language Development ECED220 Emergent Math and Science PSYC201 Educational Psychology ECED225 Emerging Literacy	ECED200 Observing and Assessing ECED204 Primary Reading ECED230 Professional Communication ECED240 Topics in Early Childhood (spring only) SPEC204 Cognitive Development
1 General Education Course	1 General Education Course
<b>Credit Total: 15</b>	<b>Credit Total: 17</b>
<b>Fall Junior</b>	<b>Spring Junior</b>
ECED325 Assessment & Evaluation ECED326 Guidance and Classroom Mgmt. SPEC309 Effective Instructional Strategies	ECED332 Creative Expression SPEC345 Literacy Instruction
2 General Education Courses	3 General Education Courses
<b>Credit Total: 15</b>	<b>Credit Total: 15</b>
<b>Fall Senior</b> <i>Professional Semester</i>	<b>Spring Senior</b> <i>Student Teaching</i>
ECED415 Curriculum & Instruction ECED431 Science for Early Childhood ECED432 Language Arts for Early Childhood ECED433 Math for Young Children ECED436 Social Studies for Early Childhood	ECED493 Student Teaching and Practicum ECED494 Student Teaching and Practicum
<b>Credit Total: 15</b>	<b>Credit Total: 12</b>

## PreK-Grade 4 ECED with Special Education – Bachelor of Science in Education

Effective Fall 2016

<b>General Education Credit Total</b>		<b>42</b>
<b>Intellectual Foundation</b>	Min Grade	<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C-	
WC: Assumed by major coursework		
WC: Assumed by major coursework		
<b>Oral Communication</b>		<b>3 sh</b>
SPEC441 required for the major	C	
<b>Math. and Comp. Thinking</b>		<b>3 sh.</b>
MATH102 required for major	C-	
<b>Critical Thinking</b>		
CT : Assumed by major coursework		
CT: Assumed by major coursework		

<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>	C-	<b>6 sh</b>
<b>Historical, Beh., and Social Science Inq.</b>		<b>6 sh</b>
PSYC111 required for major	C	<b>3 sh</b>
<b>Phil., Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
SPEC202 required for the major	C	
<b>Wellness</b>		<b>3 sh</b>
HPED245 required for major		
<b>Experiential Learning</b>		
EL: Assumed by major coursework		
EL: Assumed by major coursework		

<b>Dual Major Coursework Credit Total</b>		<b>85</b>
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or ECED119: First Year Seminar	CR	<b>1</b>

<b>Major Area and Cognate Courses</b>	Min Grade	
<b>Professional Education</b>		<b>3</b>
MATH115: Statistics and Geometry	C-	
<b>Required Early Childhood Education Courses</b>		<b>27</b>
ECED100: Intro. Early Childhood Education	C	
ECED200: Observing and Assess. Young Children	C	
ECED204: Primary Reading	C	
ECED212: Language Development	C	
ECED220: Emerging Mathematics	C	
ECED225: Beginning Literacy	C	
ECED230: Prof. Comm. and Family Collaboration	C	
ECED326: Child Guidance and Classroom Man.*	C	
ECED332: Developing Creative Expression*	C	
<b>Required Special Education Courses</b>		<b>18</b>
SPEC105: Foundations of Special Education	C	
SPEC202: Cultural and Linguistic Diversity	C	GAC
SPEC212: Low Incidence Disabilities Support*	C	
SPEC215: High Incidence Disabilities Support*	C	
SPEC300: Comm. Dis. and Assist. Technology*	C	
SPEC338: Positive Behavior Support*	C	
SPEC345: Literacy Skills for Students with Dis.*	C	
<b>ECED Professional Semester</b>		<b>15</b>
ECED415: Integrating Curriculum & Instruction*	C	
ECED431: Science for Young Children*	C	
ECED432: Lang. Arts & Reading for Young Child.*	C	
ECED433: Math for Early Childhood*	C	
ECED436: Social Studies for Young Children*	C	
<b>SPEC Professional Semester</b>		<b>9</b>
SPEC425: Law and Collaborative Practices*	C	
SPEC440: Strat. For Teach. St. with Low Inc. Dis.*	C	
SPEC441: Strat. For Teach. St. with High Inc. Dis.*	C	OC
SPEC430: Assess. Ed. Needs & Plan. for Instruction*	C	
<b>Student Teaching</b>		<b>12</b>
ECED493/494: ST and Prac. (Early Childhood)*	C	
SPEC493: ST and Prac. for SPEC grades Prek-8*	C	

**PreK- Grade 4 ECED /Special Education Dual Certification (BSED) 127 Credits  
Suggested Course Sequence**

<b>Fall First Year</b>	<b>SH</b>	<b>Spring First Year</b>	<b>SH</b>
SPEC 119 or ECED 119 Freshman Seminar	1	ECED 100 Introduction to ECE	3
ENGL 100 Composition	3	ENGL 110 Introduction to Literature	3
SPEC 105 Foundations of Special Education	3	MATH 115 Statistics and Geometry	3
PSYC 111 Psychology of Early Childhood	3	SPEC 212 Low Incidence Disabilities Support	3
MATH 102 Number Systems	3	1 General Education Courses	3
1 General Education Course	3		-
	-		<b>15</b>
	<b>16</b>		
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
ECED 212 Language Development	3	ECED 200 Observing and Assessing Young Children	3
ECED 220 Emerging Math	3	ECED 204 Primary Reading	3
SPEC 215 High Incidence Disabilities Support	3	ECED 230 Professional Communication & Family	3
ECED 225 Beginning Literacy	3	Collaboration	
2 General Education Courses	6	SPEC 202 Cultural and Linguistic Diversity	3
	-	2 General Education Courses	6
	<b>18</b>		-
			<b>18</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
ECED 326 Child Guid. And Classroom Man.	3	<b>ECED Professional Semester</b>	
ECED 332 Developing Creative Expression	3	ECED 415 Curriculum and Instruction	3
SPEC 345 Literacy Skills for Students with Disabilities	3	ECED 431 Science for Young Children	3
SPEC 300 Communication Disorders and Assistive		ECED 432 Language Arts & Reading for Young Children	3
Technology	3	ECED 433 Math for Young Children	3
SPEC 338 Positive Behavior Support		ECED 436 Social Studies for Young Children	3
1 General Education Course	3		3
	3		-
	-		<b>15</b>
	<b>18</b>		
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
<b>SPEC Professional Semester</b>		ECED 493/494 Student Teaching & Practicum	6
SPEC 425 Law and Collaborative Practices	3	SPEC 493/494 Student Teaching and Practicum	6
SPEC 430 Assessing Educational Needs and Planning			-
for Instruction	3		<b>12</b>
SPEC 440 Strategies for Teaching Students with Low			
Incidence Disabilities	3		
SPEC 441 Strategies for Teaching Students with High			
Incidence Disabilities	3		
1 General Education Course	3		
	-		
	<b>15</b>		
Advising Notes:		<b>Summer or Intersession Coursework</b>	
1. GE: PLA- one course must be from visual or		<b>Some coursework may be completed in the summer or</b>	
performing arts		<b>during intersession if a reduced load is desired per the</b>	
2. GE: GAC- one course must meet the		<b>recommended sequence, a minor is being sought, or an</b>	
historical foundations competency		<b>earlier graduation timeline is desired.</b>	
3. *Denotes Advanced Coursework		<b>Many general education courses are taught online.</b>	
		<b>Several special education courses are also taught online</b>	
		<b>and are available during the summer.</b>	

## Psychology - Bachelor of Arts

Effective Fall 2017

<b>Intellectual Foundation (9 sh)</b>	
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	3
WC Competency 1: PSYC204	
WC Competency 2: PSYC409	
<b>Oral Communication</b>	<b>3 sh</b>
COMM100, 102, 103, or 104	3
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH107: Basic Statistics I (C- minimum)	3
<b>Critical Thinking</b>	
CT Competency 1: PSYC202	
CT Competency 2: PSYC409	

<b>Knowledge and Inquiry (21 sh)</b>	
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology1 (or BIOL106)	3
Additional lab or non-lab science	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART, MUSI, THEA, DANC	3
PHIL or Literature (e.g., ENGL110)	3
(Any of the above 6 areas)	3

<b>Personal and Social Responsibility (12sh)</b>	
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
HIST101 or HIST102	3
	3
	3
<b>Wellness</b>	<b>3 sh</b>
	3
<b>Experiential Learning (2 units required)</b>	
Recommended: PSYC369, PSYC235, or PSYC499 (2 units each)	

<b>Electives</b>	<b>17 sh</b>
PSYC207: Careers in Psych (Strongly Recommended)	2

<b>First Year Student Seminar</b>	<b>1 sh</b>
PSYC119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>42 sh</b>
<b>Major Core (18 sh) Minimum grade of C-</b>	
PSYC100: Introduction to Psychological Science	3
# PSYC202: Research Methods in Psychology	3
# PSYC204: Writing for Psychology	3
# PSYC205: Applied Psychological Statistics	3
# PSYC215: Foundations of Biopsychology	3
# PSYC409: Applying Research Methods in Psych.	3

<b>Supplemental Core (12 sh)</b>	
PSYC102: Child Devel, PSYC103: Adol. Devel, or PSYC240: Lifespan Devel	3
# PSYC235: Leadership or PSYC250 Social Psych	3
# PSYC305: Theories of Learning or PSYC310: Cognitive Psych	3
# PSYC307 (Abnormal) or 308 (Personality)	3

<b>PSYCHOLOGY ELECTIVES (300 or 400 level)</b> <b>PSYC electives should be carefully selected, in consultation with your academic advisor, to prepare you for your specific career goals</b>	<b>12 sh</b>
(At least 9 sh must be 300 or 400 level courses #)	
	3
#	3
#	3
#	3

<b>BA Degree Specific Requirements (18 sh)</b>	
<b>Completion of Level 4 of a Foreign Language</b>	<b>3-12 sh</b>
FREN101, GERM101, or SPAN101*	3
# FREN102, GERM102, or SPAN102*	3
# FREN201, GERM201, or SPAN201*	<b>3</b>
# FREN202, GERM202, or SPAN202	3
*If lower levels are waived, credits become electives	
<b>Liberal Arts Seminars</b>	<b>6 sh</b>
Must take from 2 of the 3 areas (Social Science; Humanities; Science/Math)	
# _____ 328	3
# _____ 328	3

# Advanced coursework (must be at least 42 sh)

**Bachelor of Arts Psychology  
Suggested Course Sequence**

**Fall Freshman (example)**

PSYC119: First Year Student Seminar (1)  
PSYC100: Introduction to Psychology (3)  
ENGL100: Composition (3)  
PLA course (3)  
Wellness course (3)  
HBSS course (3)

Credit Total: 16

**Spring Freshman (example)**

PSYC102, PSYC103, or PSYC240 (3)  
BIOL101 (3)  
PLA course (3)  
PSYC235 or PSYC250 (3)  
Free elective (may choose PSYC207) (2)

Credit Total: 14

**Fall Sophomore (example)**

Language 101 (3)  
PSYC202 or PSYC204 (3)  
PSYC307 or PSYC elective (3)  
MATH100 (if needed) or free elective (3)  
Lab or non-lab Science course (3)

Credit Total: 15

**Spring Sophomore (example)**

Language 102  
MATH107 (3)  
PSYC204 or PSYC202 (3)  
PSYC215 (3)  
PSYC308 or PSYC elective (3)

Credit Total: 15

**Fall Junior (example)**

Language 201 (3)  
PSYC205 (3)  
OC course (3)  
PSYC450 (3)  
HBSS course

Credit Total: 15

**Spring Junior (example)**

Language 202 (3)  
PSYC409 (3)  
PSYC470 (3)  
GAC course (3)  
PLA course (3)

Credit Total: 15

**Fall Senior (example)**

PSYC369 (fulfills EL) or PSYC electives (6)  
328 Seminar course (3)  
PSYC310 or free elective (3)  
GAC course (3)

Credit Total: 15

**Spring Senior (example)**

PSYC305 or free elective (3)  
328 Seminar course (3)  
GAC course (3)  
Free electives (3)

Credit Total: 15

EL = Experiential Learning; GAC = Global Awareness & Citizenship; HBSS = Historical, Behavioral, and Social Sciences Inquiry; OC = Oral Communication; PLA = Philosophical, Literary, and Aesthetic Inquiry. *At least 9 credits PSYC electives must be 300-400 level courses.*

## Psychology - Bachelor of Science

Effective Fall 2017

<b>Intellectual Foundation (9 sh)</b>	
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	3
WC Competency 1: PSYC204	
WC Competency 2: PSYC409	
<b>Oral Communication</b>	<b>3 sh</b>
COMM100, 102, 103, or 104	3
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
MATH107: Basic Statistics I (C- minimum)	3
<b>Critical Thinking</b>	
CT Competency 1: PSYC202	
CT Competency 2: PSYC409	

<b>Knowledge and Inquiry (21 sh)</b>	
<b>Natural Science Inquiry</b>	<b>6 sh</b>
BIOL101: Basic Biology1 (or BIOL106)	3
Additional lab or non-lab science	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART, MUSI, THEA, DANC	3
PHIL or Literature (e.g., ENGL110)	3
(Any of the above 6 areas)	3

<b>Personal and Social Responsibility (12sh)</b>	
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
	3
	3
	3
<b>Wellness</b>	<b>3 sh</b>
	3
<b>Experiential Learning (2 units required)</b>	
PSYC499 (2 units)	

<b>Electives</b>	<b>18 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
PSYC119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>59 sh</b>
<b>Major Core (26 sh) Min. grade of B-</b>	
PSYC100: Introduction to Psychological Science	3
# PSYC202: Research Methods in Psychology	3
# PSYC204: Writing for Psychology	3
# PSYC205: Applied Psychological Statistics	3
# PSYC207: Careers in Psychology	2
# PSYC215: Foundations of Biopsychology	3
# PSYC250: Social Psychology	3
# PSYC409: Applying Research Methods in Psych	3
# PSYC499: Independent Study	3

<b>Supplemental Core (12 sh) Min. grade of C+</b>	
PSYC102: Child Devel, PSYC103: Adol. Devel, or PSYC240: Lifespan Devel	3
# PSYC305: Theories of Learning or PSYC310: Cognitive Psych	3
# PSYC307: Abnormal or PSYC308: Personality	3
# PSYC402: Sensation & Perception, PSYC410: Physio Psych, or PSYC412: Human Neuropsych	3

<b>Psychology Electives (18 sh) Min. grade of C+</b>	
(At least 9 sh must be 300 or 400 level courses #)	
#	3
#	3
#	3
	3
	3
	3

<b>Computer Skill Enhancement (3 sh)</b>	
COMP150: Intro to Computers (or COMP160)	3

# Advanced coursework (must be at least 42 sh)

**Psychology Bachelor of Science  
Suggested Course Sequence**

**Fall Freshman (example)**

PSYC119: First Year Student Seminar (1)  
PSYC100: Introduction to Psychology (3)  
ENGL100: Composition (3)  
PLA course (3)  
Wellness course (3)  
GAC course (3)

Credit Total: 16

**Spring Freshman (example)**

PSYC102, PSYC103, or PSYC240 (3)  
BIOL101 or BIOL106 (3)  
PLA course (3)  
PSYC250 (3)  
PSYC207 (2)

Credit Total: 14

**Fall Sophomore (example)**

PSYC202 (3)  
PSYC307 or PSYC308 (3)  
HBSS course (3)  
MATH100 (if needed) or free elective (3)  
COMP150 or COMP160 (3)

Credit Total: 15

**Spring Sophomore (example)**

PSYC215 (3)  
PSYC204 (3)  
MATH107 (3)  
PLA course (3)  
GAC course (3)

Credit Total: 15

**Fall Junior (example)**

PSYC205 (3)  
PSYC310 or PSYC elective  
OC course (3)  
Lab or non-lab Science course (3)  
HBSS course

Credit Total: 15

**Spring Junior (example)**

PSYC409 (3)  
PSYC305 or PSYC elective (3)  
PSYC elective (3)  
GAC course (3)  
Free elective (3)

Credit Total: 15

**Fall Senior (example)**

PSYC499 (3)  
Free electives (6)  
PSYC electives (6)

Credit Total: 15

**Spring Senior (example)**

PSYC369 (fulfills EL) or PSYC electives (6)  
PSYC402, PSYC410, or PSYC412 (3)  
Free electives (6)

Credit Total: 15

EL = Experiential Learning; GAC = Global Awareness & Citizenship; HBSS = Historical, Behavioral, and Social Sciences Inquiry; OC = Oral Communication; PLA = Philosophical, Literary, and Aesthetic Inquiry. *At least 9 credits PSYC electives must be 300-400 level courses.*





**Community and Commercial Recreation Track  
Suggested Course Sequence**

**Fall Freshman (example)**

RECR119: First Year Student Seminar (1)  
RECR105: Leisure, Wellness and Personal Lifestyle (3 -  
WEL)  
RECR110: Introduction to Recreation (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

**Credit Total: 16**

**Spring Freshman (example)**

RECR215: Travel and Tourism (3)  
RECR244: Recreation Leadership (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

**Credit Total: 15**

**Fall Sophomore (example)**

RECR290: Special Topics (3)  
RECR330: Marketing Recreation Services (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

**Credit Total: 18**

**Spring Sophomore(example)**

RECR275: Inclusive Recreation and TR (3)  
RECR315: Program Planning (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
RECR210: Field Experience (3) (summer only)

**Credit Total: 15 + 3 = 18**

**Fall Junior (example)**

RECR300: Special Events (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

**Credit Total: 15**

**Spring Junior (example)**

RECR325: Camp Counseling (3)  
RECR340: Commercial Recreation (3)  
Additional RECR course: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

**Credit Total: 15**

**Fall Senior –Professional Semester**

RECR304: Finance and Acquisition (3)  
RECR410: Issues (3)  
RECR415: O & M (3)  
RECR430: Evaluation and Research (3)

**Credit Total: 12**

**Spring Senior (example)**

RECR425 Professional Field Experience (12\*)  
\*May take 10 or 12 credits dependent on individual  
student need.

**Credit Total: 12**



**Fitness Management Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
RECR119: First Year Student Seminar (1)  
RECR105: Leisure, Wellness and Personal Lifestyle (3 -  
WEL)  
RECR110: Introduction to Recreation (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 16

**Spring Freshman (example)**

RECR200: Personal Training and Aerobic Leadership (3)  
RECR244: Recreation Leadership and Supervision (3)  
HLTH128: Anatomy and Physiology 1 (3)  
  
HTLH129: Anatomy and Physiology 1 Lab (1)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 16

**Fall Sophomore (example)**

RECR205 Nutrition for Wellness (3)  
RECR315 Program Planning (3)  
HLTH130 A&P 2 (3)  
HTLH131 A&P 2 Lab (1)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 16

**Spring Sophomore(example)**

RECR275 Inclusive Recreation and TR (3)  
RECR330 Marketing Recreation Services (3)  
HLTH353 Physiology of Exercise (3)  
RECR210: Field Experience (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Fall Junior (example)**

RECR301 Exercise Prescription (3)  
RECR303 Sports Nutrition (3)  
  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Spring Junior (example)**

RECR302 Supervision of Strength Training Programs (3)  
RECR312 Teaching Conditioning Principles for  
Certification Testing (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Fall Senior –Professional Semester**

RECR405 Health Promotion (3)  
RECR410 Issues (3)  
RECR415 O & M (3)  
RECR420 Recreation Resource Management (3)  
RECR320 Evaluation and Research (3)  
Credit Total: 15

**Spring Senior (example)**

RECR425 Professional Field Experience (10/12)  
  
  
  
  
Credit Total: 10/12



**Outdoor Recreation Track  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
RECR119: First Year Student Seminar (1)  
RECR105: Leisure, Wellness and Personal Lifestyle (3 -  
WEL)  
RECR110: Introduction to Recreation (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 16

**Spring Freshman (example)**

RECR244: Recreation Leadership (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Fall Sophomore (example)**

RECR203: Team Building (3)  
RECR315: Program Planning (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Spring Sophomore(example)**

RECR320: Interpreting the Environment(3)  
RECR275: Inclusive Recreation and TR (3)  
RECR202: Outdoor Activities (3)  
RECR210: Field Experience (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Fall Junior (example)**

RECR356: Outdoor Education (3)  
RECR330: Marketing (3)  
Elective Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Spring Junior (example)**

RECR325: Camp Counseling (3)  
RECR355: Outdoor Recreation(3)  
Lab Science: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

**Fall Senior –Professional Semester**

RECR410: Issues (3)  
RECR415: O & M (3)  
RECR420: Recreation Resource Mgt (3)  
RECR430: Evaluation and Research (3)

Credit Total: 12

**Spring Senior (example)**

RECR425 Professional Field Experience (12)

Credit Total: 10/12

## Recreation Management: Therapeutic Recreation - Bachelor of Science

Effective Fall 2017

	SH	Sem
<b>Intellectual Foundation</b>	<b>9</b>	
<b>Written Communication</b>	<b>3</b>	
ENGL100: Composition		
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	<b>3</b>	
<b>Mathematical and Computational Thinking</b>	<b>3</b>	
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>	<b>21</b>	
<b>Natural Science Inquiry</b>	<b>6</b>	
Lab Science		
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6</b>	
PSYC100		
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9</b>	

<b>Personal and Social Responsibility</b>	<b>12</b>	
<b>Global Awareness and Citizenship</b>	<b>9</b>	
GAC-Historical		
<b>Wellness</b>	<b>3</b>	
RECR105: Leisure, Wellness and Personal Lifestyle	3	
<b>Experiential Learning</b>		
EL Competency 1 – RECR210		
EL Competency 2 – RECR425		

<b>Electives</b>	<b>18</b>	

	SH	Sem
<b>First Year Student Seminar</b>	<b>1</b>	
RECR119: First Year Student Seminar	1	

<b>Major Area Core Courses</b>	<b>59</b>	
RECR110: Introduction to Recreation/Leisure	3	
RECR244: Recreation Leadership	3	
#RECR275: Inclusive Recreation and TR	3	
#RECR315: Program Planning and Design	3	
#RECR330: Marketing Recreation Services	3	
<b>Professional Semester Courses</b>		
#RECR304: Finance and Acquisition	3	
#RECR410: Current Issues	3	
#RECR415: Organization and Management	3	
#RECR430: Assessment, Evaluation and Research	3	
<b>Field Experiences</b>		
RECR210: Field Participation in RECR	3	
#RECR 425: Professional Field Experience	14	
<b>Track Specific Courses</b>		
RECR204: Foundations of TR	3	
#RECR364: TR Assessment and Documentation	3	
#RECR365: TR Methods and Techniques	3	
#RECR402: Leisure Education -TR	3	
<b>Required Cognate Courses</b>		
HLTH122: Essentials of Anatomy and Physiology	3	
<b>Courses required for NCTRC Exam Eligibility</b>		
#PSYC240: Life Span Development	3	
#PSYC307: Abnormal Psychology	3	
*One additional TR course	3	
<b>*In addition to PSYC240 and PSYC307, must complete one additional TR course to sit for the NCTRC exam.</b>		
<b>High Suggested Electives</b>		
PSYC315: Health Psychology	3	
PSYC330: Adult Development and Aging	3	
RECR203: Team Building/Challenge Course	3	
SPEC310: Manual Communication and Signing	3	
HLTH200: Introduction to Disease	3	
HLTH332: Psych Aspects of Injury & Illness	3	
#denotes upper-level course content		

**Therapeutic Recreation Track  
Suggested Course Sequence**

Fall Freshman (example)

RECR119: First Year Student Seminar (1)  
RECR105: Leisure, Wellness and Personal Lifestyle (3 –  
WEL)  
RECR110: Introduction to Recreation (3)  
PSYC100: Introduction to Psychological Sciences(3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Credit Total: 16

Fall Sophomore (example)

RECR275: Inclusive Recreation and TR (3)  
RECR364: Assessment & Documentation TR (3)  
RECR365: Methods & Techniques TR (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)

Credit Total: 15

Fall Junior (example)

RECR330: Marketing Recreation Services (3)  
RECR402: Leisure Education TR (3)  
PSYC307: Abnormal Psychology (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Credit Total: 15

Fall Senior –Professional Semester

RECR304: Finance and Acquisition (3)  
RECR410: Issues (3)  
RECR415: O & M (3)  
RECR430: Evaluation and Research (3)  
Credit Total: 12

Spring Freshman (example)

RECR204: Foundations of TR (3)  
RECR244: Recreation Leadership (3)  
  
HLTH122: Essentials of Anatomy and Physiology (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
  
Credit Total: 15

Spring Sophomore(example)

RECR315: Program Planning (3)  
PSYC240: Lifespan Development (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
RECR210: Field Experience (3) (summer only)  
Credit Total: 15 + 3 = 18

Spring Junior (example)

Recommended Elective: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Elective/Gen Ed: (3)  
Credit Total: 15

Spring Senior (example)

RECR425: Professional Field Experience (14\*)  
\*Must take a 14 credit field experience to meet NCTRC requirements.  
  
Credit Total: 14

## Secondary Education: Biology - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENG100: Composition (3 sh)	C-	
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141: Calculus I (3)	C	
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106: Principles of Biology I (3)		
BIOL107 Principles of Biology II (3)		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103: Adolescent Development (3)	C	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110: Introduction to Literature (3)	C-	
Note: required for the major		
<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202: Cultural and Linguistic Diversity (3)	C	
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1		
EL Competency 2		

Major Coursework Credit Total		84
<b>First Year Student Seminar</b>	Min Grade	
SCI119: First Year Seminar	CR	1

Major Area and Cognate Courses Total		Min Grade	
<b>Required Biology Content Coursework</b>			51
#BIOL202: Genetics (3)	C		
#BIOL206: Botany (3)	C		
#BIOL240: Zoology (3)	C		
#BIOL309: Ecology (3)	C		
#BIOL330: Cell & Molecular Biology (4)	C		
#BIOL330: Microbiology (4)	C		
#BIOL410: Organismal Physiology (3)	C		
#BIOL3--/4—Biology elective (2-3)	C		
CHEM221/PHYS131/BIOL3--/4—(3-4)*	C		
CHEM120: Principles of Chemistry I (4)	C		
CHEM121: Principles of Chemistry II (4)	C		
CHEM220: Organic Chemistry I (4)	C		
PHYS130: Physics I (4)*	C		
* Students are encouraged to also take PHYS131 Physics II in case they choose to pursue an additional Biology degree.			
GEOS Elective (3)	C		
MATH107: Statistics (3)			
<b>Professional Education Coursework</b>			12
Block I			
SCI209: Science Methods 1 (3)	C		
PSYC201: Educational Psychology (3)	C		
Block II			
#SCI315: Science Methods II (4)	C		
EDUC212: Classroom Management (2)			
<b>Special Education Coursework</b>			9
SPEC204: Cognitive Develop. of Diverse Learners (3)	C		
#SPEC309: Effect. Inst. Strat. for Stud. with Dis. (3)	C		
#SPEC345: Literacy Skills for Students with Dis. (3)	C		
<b>Student Teaching</b>			12
#SCI493: Science ST and Practicum I (6)	C		
#SCI494: Science ST and Practicum II (6)	C		
# = Advanced Course Work			



**Secondary Education - Biology  
Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SCI119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus	3
1 general education course	3	Introduction to Literature	<u>3</u>
1 general education course	<u>3</u>		<b>16</b>
	<b>17</b>		
Fall Second Year		Spring Second Year	
BIOL206 Botany I	3	BIOL240 Zoology	3
CHEM220 Organic Chemistry I	4	BIOL202 Genetics	3
MATH107 Statistics	3	1 General Education Course	3
SPEC204 Cognitive. Development. of Div. Learners	3	<b>BLOCK I</b>	
1 General Education Course	3	SCI209 Science Methods I	3
	-	PSYC201 Educational Psychology	3
	<b>16</b>		-
			<b>15</b>
Fall Third Year		Spring Third Year	
BIOL309 Ecology	3	BIOL410 Organismal Physiology	3
BIOL330 Cell & Molecular Biology	4	BIOL3--- Biology Elective	2
BIOL3--- Biology Elective	3	GEOS--- Earth & Space science elective	3
1 General Education Course	3	1 General Education Course	3
SPE 202 Cultural/Linguistics Div. in Ed.	3	1 General Education Course	3
	-	SPEC345 Literacy Skills for Students w/Disabilities	3
	<b>16</b>		-
			<b>17</b>
Fall Fourth Year		Spring Fourth Year	
BIOL340 Microbiology	4	SCI493 Student Teaching & Practicum I	6
PHYS130 Physics I	4	SCI494 Student Teaching & Practicum II	6
SPEC309 Effect. Instruct. Strat. Stud w/ Disabilities	3		-
<b>SECONDARY BLOCK II</b>			<b>12</b>
SCI315 Science Methods II	4		
EDUC212 Classroom Management	<u>2</u>		
	<b>17</b>		

## Secondary Education: Biology with Special Education - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>	C	3 sh
SPEC441 required for the major		
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141 required for the major	C	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106 Required by the major		
BIOL107 Required by the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major	C-	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework Credit Total		101
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SCI119 First Year Seminar	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Professional Education</b>			9
SCI209 Science Methods 1 (3sh)*			
PSYC201 Educational Psychology (3sh)			
MATH107 Statistics (3sh)			
<b>Required Biology Content Coursework</b>			48
BIOL106 Principles of Biology I (3sh)	C		NSI
BIOL107 Principles of Biology II (3sh)	C		NSI
BIOL202 Genetics (3sh)	C		
BIOL206 Botany (3sh)	C		
BIOL240 Zoology (3sh)	C		
BIOL309 Ecology (3sh)	C		
BIOL330 Cell & Molecular Biology (4sh)	C		
BIOL340 Microbiology (4sh)	C		
BIOL410 Organismal Physiology (3sh)	C		
BIOL3XX Biology Elective (3sh)	C		
BIOL3XX Biology Elective (3sh)	C		
NOTE: PHYS 131 or CHEM 221 may be used for 4 sh of BIO electives			
CHEM 120 Principles of Chemistry I (4sh)	C		
CHEM 121 Principles of Chemistry II (4sh)	C		
CHEM 220 Organic Chemistry I (4sh)	C		
PHYS 130 Physics I (4sh)	C		
GEOS Elective (3sh)	C		
<b>Required Special Education Coursework</b>			18
SPEC105 Foundations of Special Education	C		
SPEC202 Cultural and Linguistic Diversity (3sh)	C		GAC
SPEC215 High Incidence Disabilities Support*	C		
SPEC212 Low Incidence Disabilities Support*	C		
SPEC338 Positive Behavior Support*	C		
SPEC300 Comm. Disorders and Assist. Technology*	C		
SPEC345 Literacy Skills for Stud. with Dis. (3sh)*	C		
<b>Science/Special Education Prof. Semester</b>			13
SPEC430 Assess. Ed. Needs & Plan. for Instruction*	C		
SPEC440 Strat. For Teaching St. with Low Inc. Dis.*	C		
SPEC441 Strat. For Teaching St. with High Inc. Dis.*	C		OC
SPEC425 Law and Collaborative Practices*	C		
SCI315 Science Methods II (4sh)*	C		
<b>Student Teaching</b>			12
SCI493 ST & Practicum Science (6sh)*	C		
SPEC494 ST & Pract. for SPEC grades 7-12 (6sh)*	C		

**Secondary Biology/Special Education Dual Certification (BSED) 143 Credits  
Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SPEC119 or SCI119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus	3
SPEC105 Foundations of Special Education	3	SPEC202 Cultural and Linguistic Diversity	3
1 general education course	3		
	<b>17</b>		<b>16</b>
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
BIOL206 Botany I	3	BIOL240 Zoology	3
CHEM220 Organic Chemistry I	4	BIOL202 Genetics	3
MATH107 Statistics	3	SPEC212 Low Incidence Disabilities Support	3
ENGL110 Introduction to Literature	3	BIOL3--- Biology Elective	3
SPEC215 High Incidence Disabilities Support	3		
	-	<b>BLOCK I</b>	3
	<b>16</b>	SCI209 Science Methods I	3
		PSYC201 Educational Psychology	-
			<b>18</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
BIOL309 Ecology	3	BIOL---- Organismal or Plant Physiology	3
BIOL330 Cell & Molecular Biology	4	GEOS--- Earth & Space science elective	3
BIOL340 Microbiology/Biology Elective	4	SPEC338 Positive Behavior Supports	3
PHYS130 Physics I	4	BIOL3—Biology Elective	3
SPEC300 Communication Disorders and Assistive Technology	3	SPEC345 Effect. Instr. Strat. Stud. w/Disabilities	3
	-		-
	<b>18</b>		<b>15</b>
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
<b>Secondary Block II</b>		SCI493/494 Student Teaching & Practicum	6
SCI315 Science Methods II	4	SPEC493/494 Student Teaching and Practicum	6
<b>Special Education Block</b>			-
SPEC425 Law and Collaborative Practices	3		<b>12</b>
SPEC430 Assessing Educational Needs and Planning for Instruction	3		
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
	-		
	<b>16</b>		
<b>Advising Notes:</b>		<b>Summer or Intersession Coursework</b>	
4. GE: PLA- one course must be from visual or performing arts		<b>If a 4 year graduation timeline is desired, 5 General Education Courses should be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	<b>15</b>
5. GE: GAC- one course must meet the historical foundations competency			
6. *Denotes Advanced Coursework			

## Secondary Education: Chemistry - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3)	C-	
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141: Calculus I (3)	C	
Note: required for the major		
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106: Principles of Biology I (3)		
BIOL107 Principles of Biology II (3)		
Note: both courses required for the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103: Adolescent Development (3)	C-	
Note: required for the major		
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110: Introduction to Literature (3)	C –	
Note: required for the major		

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202: Cultural and Linguistic Diversity (3)	C	
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1		
EL Competency 2		

Major Coursework Credit Total		82
<b>First Year Student Seminar</b>	Min Grade	
SCI119: First Year Seminar	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Required Chemistry and Science Coursework</b>			48
CHEM120: Principles of Chemistry I (4)	C		
CHEM121: Principles of Chemistry II (4)	C		
#CHEM220: Organic Chemistry I (4)	C		
#CHEM221: Organic Chemistry II (4)	C		
#CHEM301: Inorganic Chemistry I (3)	C		
#CHEM316: Quantitative Analysis (4)	C		
#CHEM320: Physical Chemistry I (4)	C		
#CHEM410: Biochemistry (4)	C		
#CHEM 300+ Course (3)	C		
PHYS170: Inter. Gen. Physics I (4)	C		
PHYS171: Inter. Gen. Physics II (4)	C		
GEOSxxx Geoscience Elective (GEOS130 Principles of Geology I recommended) - (3)	C		
MATH142: Calculus II (3)	C		
<b>Professional Education Coursework</b>			12
Block I			
SCI209: Science Methods 1 (3)	C		
PSYC201: Educational Psychology (3)	C		
Block II			
#SCI315: Science Methods II (4)	C		
EDUC212: Classroom Management (2)			
<b>Special Education Coursework</b>			9
SPEC204: Cognitive Develop. of Div. Learners (3)	C		
#SPEC309: Effect. Instruct. Strat. for Stud. w/Dis. (3)	C		
#SPEC345: Literacy Skills for Students with Dis. (3)	C		
<b>Student Teaching</b>			12
#SCI493: Science ST and Practicum I (6)	C		
#SCI494: Science ST and Practicum II (6)	C		
# = Advanced Course Work			

**Secondary Education - Chemistry  
Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SCI119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
English Composition	3	MATH142 Calculus II	3
MATH141 Calculus	3	Introduction to Literature	3
1 General Education Course	3		-
	-		<b>16</b>
	<b>17</b>		
Fall Second Year		Spring Second Year	
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
CHEM316 Quantitative Analysis	4	PHYS170 Intermediate Physics I	4
GEOS Geoscience Elective	3	1 General Education Course	3
SPEC204 Cognitive Development of Div. Learners	3	<b>BLOCK I</b>	
	-	SCI209 Science Methods I	3
	-	PSYC201 Educational Psychology	3
	<b>14</b>		-
			<b>17</b>
Fall Third Year		Spring Third Year	
CHEM 301 Inorganic Chemistry I or	3 or	CHEM410 Biochemistry	4
CHEM 320 Physical Chemistry I	4	1 General Education Course	3
PHYS171 Intermediate Physics II	4	1 General Education Courses	3
CHEM300 + Chemistry Elective	3	1 General Education Courses	3
1 General Education Course	3	SPEC345 Literacy Skills. for Students with Disabilities	3
SPE 202 Cultural and Linguistic Diversity	3		-
	-		<b>16</b>
	<b>16</b>		
	<b>or</b>		
	<b>17</b>		
Fall Fourth Year		Spring Fourth Year	
CHEM 320 Physical Chemistry I or	4 or	SCI493 Student Teaching & Practicum I	6
CHEM 301 Inorganic Chemistry I	3	SCI494 Student Teaching & Practicum II	6
1 General Education Course	3		-
SPEC309 Effect. Instruct. Strat. for Stud. With Dis.	3		<b>12</b>
<b>SECONDARY BLOCK II</b>			
SCI315 Science Methods II	4		
EDU 212 Classroom Management	2		
	-		
	<b>16</b>		
	<b>or</b>		
	<b>15</b>		

## Secondary Education: Chemistry with Special Education - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>	C	3 sh
SPEC441 required for the major		
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141 required for the major	C	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106 Required by the major		
BIOL107 Required by the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major	C-	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework Credit Total		98
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SCI119 First Year Seminar (1sh)	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Professional Education</b>			9
SCI209 Science Methods 1 (3sh)*			
PSYC201 Educational Psychology (3sh)			
MATH142 Calculus II (3sh)			
<b>Required Chemistry and Science Coursework</b>			45
CHEM120 Principles of Chemistry I (4sh)	C		
CHEM121 Principles of Chemistry II (4sh)	C		
CHEM220 Organic Chemistry I (4sh)	C		
CHEM221 Organic Chemistry II (4sh)	C		
CHEM301 Inorganic Chemistry I (3sh)	C		
CHEM316 Quantitative Analysis (4sh)	C		
CHEM320 Physical Chemistry I (4sh)	C		
CHEM410 Biochemistry (4sh)	C		
CHEM300+ Elective (3sh)	C		
BIOL106 Principles of Biology I (3sh)	C	NSI	
BIOL107 Principles of Biology II (3sh)	C	NSI	
PHYS170 Inter. Gen. Physics I (4sh)			
PHYS171 Inter. Gen. Physics II (4sh)			
GEOS-- Geoscience Elec.(GEOS 130) - (3sh)			
<b>Required Special Education Coursework</b>			18
SPEC105 Foundations of Special Education	C		
SPEC202 Cultural and Linguistic Diversity	C	GAC	
SPEC215 High Incidence Disabilities Support*	C		
SPEC212 Low Incidence Disabilities Support*	C		
SPEC338 Positive Behavior Support*	C		
SPEC300 Comm. Disorders and Assist. Technology*	C		
SPEC345 Literacy Skills for Students with Dis.*	C		
<b>Science/Special Education Prof. Semester</b>			13
SPEC430 Assess. Ed. Needs & Plan. for Instruction*	C		
SPEC440 Strat. For Teaching St. with Low Inc. Dis.*	C		
SPEC441 Strat. For Teaching St. with High Inc. Dis.*	C	OC	
SPEC425 Law and Collaborative Practices*	C		
SCI315 Science Methods II (4sh)*	C		
<b>Student Teaching</b>			12
SCI493 ST & Practicum Science (6sh)*	C		
SPEC494 ST & Pract. for SPEC grades 7-12 (6sh)*	C		
*Denotes Advanced Coursework			

**Secondary Chemistry/Special Education Dual Certification (BSED) 140 Credits**

**Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SPEC119 or SCI 119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH142 Calculus II	3
SPEC105 Foundations of Special Education	3	SPEC202 Cultural and Linguistic Diversity	3
MATH141 Calculus	3		-
	-		<b>16</b>
	<b>17</b>		
Fall Second Year		Spring Second Year	
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
CHEM316 Quantitative Analysis	4	PHYS170 Intermediate Physics I	4
ENGL110 Literature	3	SPEC212 Low Incidence Disabilities Support	3
GEOS Geoscience Elective	3	<b>BLOCK I</b>	
SPEC215 High Incidence Disabilities Support	3	SCI209 Science Methods I	
	-	PSYC201 Educational Psychology	3
	-		3
	<b>17</b>		-
			<b>17</b>
Fall Third Year		Spring Third Year	
CHEM301 Inorganic Chemistry I	3	CHEM410 Biochemistry	4
CHEM320 Physical Chemistry I	4	1 General Education Courses	3
PHYS171 Intermediate Physics II	4	SPEC338 Positive Behavior Supports	3
SPEC300 Communication Disorders and Assistive Technology	3	SPE 345 Literacy Instruction for Students with Disabilities	3
1 General Education Course	3	CHEM300 + Chemistry Elective	
	-		3
	-		-
	<b>17</b>		<b>16</b>
Fall Fourth Year		Spring Fourth Year	
<b>Secondary Block II</b>		SCI493/494 Student Teaching & Practicum	6
SCI315 Science Methods II	4	SPEC493/494 Student Teaching and Practicum	6
<b>Special Education Block</b>			-
SPEC425 Law and Collaborative Practices	3		<b>12</b>
SPEC430 Assessing Educational Needs and Planning for Instruction	3		
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
	-		
	<b>16</b>		
<b>Advising Notes:</b>		<b>Summer or Intersession Coursework</b>	
1. GE: PLA- one course must be from visual or performing arts		<b>If a 4 year graduation timeline is desired, 4 General Education Course should be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	<b>12</b>
2. GE: GAC- one course must meet the historical foundations competency			
3. *Denotes Advanced Coursework			

## Secondary Education: Earth and Space Science - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 s.h.)	C-	
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141: Calculus I (3 s.h.)	C	
Note: required for the major		
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
GEOS130 Principles of Geology I (3 s.h.)	C	
GEOS131 Principles of Geology II (3 s.h.)	C	
Note: both courses required for the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103: Adolescent Develop. (3 s.h.)	C	
Note: required for the major		
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110: Intro. to Literature (3 s.h.)		
Note: required for the major	C -	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202: Cultural and Linguistic Diversity (3 s.h.)	C	
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1		
EL Competency 2		

Major Coursework Credit Total		86
<b>First Year Student Seminar</b>	Min Grade	
SCI119: First Year Seminar	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Required Earth and Space Science Coursework</b>			52
CHEM120: Principles of Chemistry I (4 s.h.)	C		
CHEM121: Principles of Chemistry II (4 s.h.)	C		
BIOL106: Principles of Biology I (3 s.h.)	C		
*BIOL107: Principles of Biology II (this course is required if certification in general science is also being pursued, strongly recommended) (3 s.h.)	C		
PHYS130: Physics I (4 s.h.)	C		
PHYS131: Physics II (4 s.h.)	C		
PHYS135: Meteorology (3 s.h.)	C		
PHYS140: Astronomy of the Solar System (3 s.h.)	C		
GEOS120: Oceanography (3 s.h.)	C		
#GEOS215: Environmental Geology (3 s.h.)	C		
#GEOS230: Geomorphology (3 s.h.)	C		
#3 s.h. GEOS260: Geology Field Trip required	C		
#11 credits of Geoscience Courses (300+ level)	C		
MATH113: Elem. Funct. or MATH107: Stats. (3 s.h.)			
<b>Professional Education Coursework</b>			12
Block I			
SCI209: Science Methods 1 (3 s.h.)	C		
PSYC201: Educational Psychology (3 s.h.)	C		
Block II			
#SCI315: Science Methods II (4 s.h.)	C		
EDUC212: Classroom Management (2 s.h.)			
<b>Special Education Coursework</b>			9
SPEC204: Cog. Develop. of Diverse Learners (3 s.h.)	C		
#SPEC309: Effect. Inst. Strat. for Stud. with Dis. (3)	C		
#SPEC345: Literacy Skills for Students with Dis. (3)	C		
<b>Student Teaching</b>			12
#SCI493: Science ST and Practicum I	C		
#SCI494: Science ST and Practicum II	C		
# = Advanced Course Work			



**Secondary Education - Earth and Space Science  
Suggested Course Sequence**

<b>Fall First Year</b>	SH	<b>Spring First Year</b>	SH
SCI119 Freshman Seminar	1	GEOS131 Principles of Geology II	3
GEOS130 Principles of Geology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus	3
MATH113 Elementary Functions	3	ENGL110 Introduction to Literature	3
1 General Education Course	3		-
	-		<b>16</b>
	<b>17</b>		
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
GEOS215 Environmental Geology (even years)	3	PHYS131 Physics II	4
GEOS230 Geomorphology (odd years)	3	GEOS260 Geology Field Trip	1
PHYS130 Physics I	4	1 General Education Course	3
BIOL106 Principles of Biology I	3	1 General Education Course	3
SPEC204 Cognitive Develop. of Diverse Learners	3	<b>BLOCK I</b>	3
GEOS260 Geology Field trip	1	SCI209 Science Methods I	3
	-	PSYC201 Educational Psychology	-
	<b>17</b>		<b>17</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
GEOS300+ Elective	3	GEOS120 Oceanography	3
PHYS140 Astronomy	3	GEOS Geology Field Trip	1
SPEC202 Cultural and Linguistic Diversity	3	SPEC345 Literacy Skills for Students with Disabilities	3
1 General Education Course	3	GEOS300+ Elective	4
1 General Education Course	3	GEOS300+ Elective	4
	-	1 General Education Course	3
	<b>15</b>		-
			<b>18</b>
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
PHYS135 Meteorology	3	SCI493 Student Teaching & Practicum I	6
1 General Education Course	3	SCI494 Student Teaching & Practicum II	6
SPEC309 Effect. Instruct. Strat. for Stud. With Dis.	3		-
<b>BLOCK II</b>			<b>12</b>
SCI315 Science Methods II	4		
EDUC212 Classroom Management	2		
	-		
	<b>15</b>		

\*BIOL107 Principles of Biology II (this course is required if certification in general science is also being pursued, strongly recommended)

## Secondary Education: Earth and Space Science with Special Education - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>	C	3 sh
SPEC441 required for the major		
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141 required for the major	C	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
GEOS130 Required by the major	C	
GEOS 131 Required by the major	C	
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major	C-	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework		
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SCI119 First Year Seminar (1sh)	CR	1

Major Area and Cognate Courses	Min Grade	
<b>Professional Education</b>		9
SCI209 Science Methods 1 (3sh)*		
PSYC201 Educational Psychology (3sh)		
MATH113 Elementary Functions (3sh)		
<b>Required Earth and Space Science Coursework</b>		48 (#)
CHEM120 Principles of Chemistry I (4sh)	C	
CHEM121 Principles of Chemistry II (4sh)	C	
BIOL106 Principles of Biology I (3sh)	C	
BIOL107 Principles of Biology II (this course is required if certification in general science is also being pursued) (3sh)#	C	
PHYS130 Physics I (4sh)	C	
PHYS131 Physics II (4sh)	C	
PHYS135 Meteorology (3sh)	C	
PHYS140 Astronomy of the Solar System (3sh)	C	
GEOS120 Oceanography (3sh)	C	
GEOS215 Environmental Geology (3sh)	C	
GEOS230 Geomorphology (3sh)	C	
3 GEOS260 Geology Field Trip courses req. (3sh) *	C	
3 Geoscience Electives Req. (300+ level) (11sh) *	C	
<b>Required Special Education Coursework</b>		18
SPEC105 Foundations of Special Education	C	
SPEC202 Cultural and Linguistic Diversity	C	GAC
SPEC215 High Incidence Disabilities Support*	C	
SPEC212 Low Incidence Disabilities Support*	C	
SPEC338 Positive Behavior Support*	C	
SPEC300 Comm. Dis. and Assist. Technology*	C	
SPEC345 Literacy Skills for Students with Dis.*	C	
<b>Science/Special Education Prof. Semester</b>		13
SPEC430 Assess. Ed. Needs & Plan. for Instruc.*	C	
SPEC440 Strat. For Teach. St. with Low Inc. Dis.*	C	
SPEC441 Strat. For Teach. St. with High Inc. Dis.*	C	OC
SPEC425 Law and Collaborative Practices*	C	
SCI315 Science Methods II (4sh)*	C	
<b>Student Teaching</b>		12
SCI493/494 ST & Practicum Science (6sh)*	C	
SPEC494 ST & Pract. for SPEC grades 7-12* (6sh)	C	

**Secondary Earth and Space Science/Special Education Dual Certification (BSED) 143-147 Credits**

**Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SPEC119 or SCI 119 Freshman Seminar	1	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	GEOS131 Principles of Geology II	3
GEOS130 Principles of Geology I	3	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus	3
SPEC105 Foundations of Special Education	3	SPEC202 Cultural and Linguistic Diversity	3
MATH113 Elementary Functions	3		-
	-		<b>16</b>
	<b>17</b>		
Fall Second Year		Spring Second Year	
GEOS215 Environmental Geology	3	BIOL107 Principles of Biology II	3
PHYS130 Physics I	4	PHYS131 Physics II	4
ENGL110 Intro to Literature	3	GEOS260 Geology Field Trip	1
BIOL106 Principles of Biology I	3	SPEC212 Low Incidence Disabilities Support	3
SPEC215 High Incidence Disabilities Support	3	<b>BLOCK I</b>	
GEOS260 Geology Field trip	1	SCI209 Science Methods I	3
	-	PSYC201 Educational Psychology	3
	<b>17</b>		-
			<b>17</b>
Fall Third Year		Spring Third Year	
GEOS230 Geomorphology	3	GEOS120 Oceanography	3
PHYS140 Astronomy	3	GEOS Geology Field Trip	1
GEOS300+ Elective	3	SPEC345 Literacy Instruction for Students with Disabilities	3
PHYS135 Meteorology	3	2 GEOS 300+ Electives	
SPEC300 Communication Disorders and Assistive Technology	3	General Education Course	8
SPEC338 Positive Behavior Supports	3		3
	-		-
	<b>18</b>		<b>18</b>
Fall Fourth Year		Spring Fourth Year	
<b>Special Education Block</b>		SCI493/494 Student Teaching & Practicum	6
SPEC425 Law and Collaborative Practices	3	SPEC493/494 Student Teaching and Practicum	6
SPEC430 Assessing Educational Needs and Planning for Instruction	3		-
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		<b>12</b>
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
<b>BLOCK II</b>			
SCI315 Science Methods II	4		
	-		
	<b>16</b>		
Advising Notes:		<b>Summer or Intersession Coursework</b>	
1. GE: PLA- one course must be from visual or performing arts		<b>If a 4 year graduation timeline is desired, 4-5 General Education Course should be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	<b>12-15</b>
2. GE: GAC- one course must meet the historical foundations competency			
3. *Denotes Advanced Coursework			



## Suggested Course Sequence Secondary Education/English

### Fall Freshman (example)

ENGL100: Composition (3)  
ENGL119: First Year Student Seminar (1)  
PLA Inquiry (3)  
PSYC103 (3)  
HBSS Inquiry (3)  
HIST101 or 102 (3)

Credit Total: 16

### Spring Freshman (example)

ENGL220 (3)  
THEA110 or THEA137 (3)  
NS Inquiry (w/ lab) (3)  
MATH (Suggested: 102, 112, 115) (3)  
Wellness (3)

Credit Total: 15

### Fall Sophomore (example)

ENGL205 (3)  
ENGL230 (3)  
ENGL280 (3)  
SPEC202 (3)  
MATH (Suggested: 102, 112, 115) (3)

Credit Total: 15

### Spring Sophomore (example)

Block I:  
PSYC201 (3)  
ENGL206 (3)  
ENGL231 (3)  
ENGL235 (3)  
SPEC204 (3)

Credit Total: 15

### Fall Junior (example)

ENGL240 (3)  
ENGL405 (3)  
ENGL writing course (3)  
GAC (3)  
NS Inquiry (no lab) (3)

Credit Total: 15

### Spring Junior (example)

ENGL242 (3)  
ENGL336 (3)  
ENGL315 (3)  
ENGL elective (3)  
Oral Communication (3)

Credit Total: 15

Summer: SPEC345      Credit total: 3

### Fall Senior (example)

Block II:  
ENGL312 (4)  
EDUC212 (2)  
SPEC309 (3)  
ENGL elective (2)  
ENGL elective (3)

Credit Total: 14

### Spring Senior (example)

ENGL493 (6)  
ENGL494 (6)

Credit Total: 12

EL = Experiential Learning; GAC = Global Awareness & Citizenship; HBSS = Historical, Behavioral, and Social Sciences Inquiry; OC = Oral Communication; PLA = Philosophical, Literary, and Aesthetic Inquiry.

## Secondary Education: English with Special Education – Bachelor of Science in Education

For Students entering LHU Fall 2016

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C	
WC: Required by the major ENGL235	C	
WC: Required by the major ENGL280	C	
<b>Oral Communication</b>		3 sh
SPEC441: Required for the major	C	
<b>Math. and Comp. Thinking</b>		3 sh.
	C-	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C-	6 sh
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major	C	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL220 required for major	C	
THEA110 or 137 required for the major		

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major	C	
HIST101 or 102 required for the major		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework Credit Total		89
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or ENGL119 First Year Seminar		1

Major Area and Cognate Courses	Min Grade	
<b>Professional Education</b>		9
ENGL206: Secondary English Methods 1 (spring)*		
PSYC201: Educational Psychology		
MATH general education course		
<b>Required English Content Coursework</b>		36
ENGL205: Intro. To Literary Studies (fall)	C	
ENGL220: World Literature (spring)	C	PLA
ENGL230: British Literature before 1800 (fall)	C	
ENGL231: British Literature after 1800 (spring)	C	
ENGL235: Teaching Lit. to Adolescents (spring)	C	
ENGL240: American Lit. before Civil War (fall)	C	
ENGL242: American Lit. after Civil War(spring)	C	
ENGL280: Intro. To Study of Language (fall)	C	WC
ENGL315: Composition Usage and Editing (spring)	C	
ENGL336: Shakespeare (spring)	C	
ENGL405: Grammars of English (fall)	C	
English Elective (any 200-400 writing or lit. course)	C	
English Elective (any 200-400 writing or lit. course)	C	
One of the following: ENGL345, 264, 266, 268, 237, 408, or 360	C	
<b>Required Special Education Coursework</b>		18
SPEC105: Foundations of Special Education	C	
SPEC202: Cultural and Linguistic Diversity	C	GAC
SPEC212: Low Incidence Disabilities Support*	C	
SPEC215: High Incidence Disabilities Support*	C	
SPEC338: Positive Behavior Support*	C	
SPEC300: Comm. Disorders and Assist. Technology*	C	
SPEC345: Literacy Skills for Students with Dis.*	C	
<b>English/Special Education Professional Semester</b>		13
SPEC430: Assess. Ed. Needs & Plan. for Instruction*	C	
SPEC440: Strat. For Teaching St. with Low Inc. Dis.*	C	
SPEC441: Strat. For Teaching St. with High Inc. Dis.*	C	OC
SPEC425: Law and Collaborative Practices*	C	
ENGL312: Methods of Teaching English II (fall)*	C	
<b>Student Teaching</b>		12
ENGL493/494: ST and Practicum English*	C	
SPEC494: ST and Practicum for SPEC grades 7-12*	C	

**Secondary English/Special Education Dual Certification (BSED) 131 Credits**  
**Suggested Course Sequence**

<b>Fall Freshman</b>	<b>Spring Freshman</b>
ENGL100: English Composition (3) ENGL205 Intro. To Lit. Studies (3) PSYC103: Adolescent Development (3) SPEC105: Foundation of Special Education (3) SPEC119 or ENGL119: Freshmen Seminar (1) General Education (3)  (16)	ENGL220: World Literature (3) SPEC202: Culturally and Linguistically Diverse (3) SPEC212: Low Incidence Disabilities Support (3) THEA110 or 137 (3) General Education (6)  (18)
<b>Fall Sophomore</b>	<b>Spring Sophomore</b>
ENGL230 (3) British Lit. before 1800 (3) ENGL280 (3) Intro. To Study of Language (3) SPEC215: High Incidence Disabilities Support (3) General Education (6)  (15)	<b>English Block I:</b> PSYC201: Educational Psychology (3) ENGL206: Methods of Teaching English 1 (3) ENGL231: British Lit. after 1800 (3) ENGL235: Teaching Literature to Adolescents (3) SPEC345: Literacy Skills for Students with Dis. (3) General Education (3)  (18)
<b>Fall Junior</b>	<b>Spring Junior</b>
ENGL240 American Lit. before Civil War (3) ENGL405 Grammars of English (3) ENGL Elective (3) ENGL Elective (3) SPEC300: Comm. Disord. & Assist. Tech. (3) General Education (3)  (18)	ENGL242 American Lit. after Civil War (3) ENGL336 Shakespeare (3) ENGL315 Composition Usage and Editing (3) SPEC338: Positive Behavior Support (3) General Education Course (6)  (18)
<b>Fall Senior</b>	<b>Spring Senior</b>
<b>English Block II:</b> ENGL312: Methods of Teaching English 2 (4) <b>Special Education Block:</b> SPEC430: Assessing Ed. Needs and Planning (3) SPEC441: Strategies for Teaching w/ High (3) SPEC440: Strategies for Teaching w/ Low (3) SPEC425: Law and Collaborative Practices (3)  (16)	ENGL493/494: Student Teaching (6) SPEC494: Student Teaching in grades 7-12 (6)  (12)
<b>Advising notes:</b> <b>Spring only English classes:</b> ENGL206, ENGL220, ENGL235, ENGL231, ENGL242, ENGL336, ENGL315  <b>Fall only English Classes:</b> ENGL205, ENGL280, ENGL230, ENGL240, ENGL312, ENGL405  <b>*Denotes Advanced Coursework</b>	<b>Summer or Intersession Coursework</b> <b>1 General Education Course must be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired.</b> <b>Many general education courses are taught online. Several special education courses are also taught online and are available during the summer as is ENGL345.</b>

## Secondary Education: General Science - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 s.h.)	C-	
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141: Calculus I (3 s.h.)	C	
Note: required for the major		
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
GEOS130 Required by the major (3 s.h.)	C	
GEOS131 Required by the major (3 s.h.)	C	
Note: both courses required for the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103: Adolescent Develop. (3 s.h.)	C-	
Note: required for the major		
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110: Intro. to Literature (3 s.h.)		
Note: required for the major		

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202: Cultural and Linguistic Diversity (3 s.h.)	C	
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1		
EL Competency 2		

Major Coursework Credit Total		85
<b>First Year Student Seminar</b>	Min Grade	
SCI119: First Year Seminar	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Required General Science Coursework</b>			51
CHEM120: Principles of Chemistry I (4 s.h.)	C		
CHEM121: Principles of Chemistry II (4 s.h.)	C		
PHYS130: Physics I (4 s.h.)	C		
PHYS131: Physics II (4 s.h.)	C		
PHYS135: Meteorology (3 s.h.)	C		
PHYS140: Astronomy of the Solar System (3 s.h.)	C		
BIOL106: Principles of Biology I (3 s.h.)	C		
BIOL107: Principles of Biology II (3 s.h.)	C		
#GEOS230: Geomorphology (3 s.h.)	C		
#GEOS260: Geology Field Trip (1 s.h.)	C		
#GEOS260: Geology Field Trip (1 s.h.)	C		
GEOS120: Oceanography (3 s.h.)	C		
#12 credits of Science Courses (100+ level)	C		
MATH113: Elem. Funct. or MATH107: Stats. (3 s.h.)	C		
<b>Professional Education Coursework</b>			12
Block I			
#SCI209: Science Methods 1 (3 s.h.)	C		
#PSYC201: Educational Psychology (3 s.h.)	C		
Block II			
#SCI315: Science Methods II (4 s.h.)	C		
EDUC212: Classroom Management (2 s.h.)			
<b>Special Education Coursework</b>			9
#SPEC204: Cognitive Develop. of Div. Learners (3)	C		
#SPEC309: Effect. Instruct. Strat. for Stud. w/Dis. (3)	C		
#SPEC345: Literacy Skills for Students with Dis. (3)	C		
<b>Student Teaching</b>			12
#SCI493: Science ST and Practicum I (6 sh)	C		
#SCI494: Science ST and Practicum II (6 sh)	C		
# = Advanced Course Work			



**Secondary Education - General Science Suggested Course Sequence**

Fall First Year	SH	Spring First Year	SH
SCI119 Freshman Seminar	1	GEOS131 Principles of Geology II	3
GEOS130 Principles of Geology I	3	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus	3
MATH113 Elementary Functions	3	ENG 110 Introduction to Literature	3
1 General Education Course	3		-
	-		<b>15</b>
	<b>16</b>		
Fall Second Year		Spring Second Year	
CHEM120 Principles of Chemistry I	4	CHEM121 Principles of Chemistry II	4
PHYS130 Physics I	4	PHY 131 Physics II	4
1 General Education Course	3	1 General Education Course	3
1 General Education Course	3	<b>BLOCK I</b>	
SPEC204 Cognitive Develop. of Diverse Learners	3	SCI209 Science Methods I	3
GEOS260 Geology Field trip	1	PSYC201 Educational Psychology	3
	-		-
	<b>18</b>		<b>17</b>
Fall Third Year		Spring Third Year	
GEOS230 Geomorphology	3	GEOS120 Oceanography	3
PHYS135 Meteorology	3	Science Elective	3
PHYS140 Astronomy	3	Science Elective	3
SPEC202 Cultural and Linguistic Diversity	3	SPEC345 Literacy Skills for Students with Disabilities	3
1 General Education Course	3	1 General Education Course	3
	-	1 General Education Course	3
	<b>15</b>		-
			<b>18</b>
Fall Fourth Year		Spring Fourth Year	
Science Elective	3	SCI493 Student Teaching & Practicum I	6
Science Elective	3	SCI494 Student Teaching & Practicum II	6
GEOS260 Geology Field trip	1		-
SPEC309 Effect. Instruct. Strat. for Stud. With Dis.	3		<b>12</b>
<b>BLOCK II</b>			
SCI315 Science Methods II	4		
EDUC 212 Classroom Management	2		
	-		
	<b>16</b>		

## Secondary Education: General Science with Special Education - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>	C	3 sh
SPEC441 required for the major		
<b>Math. and Comp. Thinking</b>		3 sh.
MATH113 or 141 required for the major	C	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106 Required by the major	C	
BIOL107 Required by the major	C	
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major	C-	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110 required for major	C -	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework Credit Total		101
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SCI119 First Year Seminar (1sh)	CR	1

Major Area and Cognate Courses	Min Grade	
<b>Professional Education</b>		9
SCI209 Science Methods 1 (3sh)*		
PSYC201 Educational Psychology (3sh)		
MATH141 or MATH107 (3sh)		
<b>Required General Science Coursework</b>		48
CHEM120 Principles of Chemistry I (4sh)	C	
CHEM121 Principles of Chemistry II (4sh)	C	
PHYS130 Physics I (4sh)	C	
PHYS131 Physics II (4sh)	C	
PHYS135 Meteorology (3sh)	C	
PHYS140 Astronomy of the Solar System (3sh)	C	
GEOS130 Principles of Geology I (3sh)	C	
GEOS131 Principles of Geology II (3sh)	C	
GEOS230 Geomorphology (3sh)	C	
GEOS260 Geology Field Trip (1sh)	C	
GEOS260 Geology Field Trip (1sh)	C	
GEOS120 Oceanography (3sh)	C	
**4 Courses of Science Elective (100+ level) (12sh)	C	
<b>Required Special Education Coursework</b>		18
SPEC105 Foundations of Special Education	C	
SPEC202 Cultural and Linguistic Diversity	C	GAC
SPEC215 High Incidence Disabilities Support*	C	
SPEC212 Low Incidence Disabilities Support*	C	
SPEC338 Positive Behavior Support*	C	
SPEC300 Comm. Disorders and Assist. Technology*	C	
SPEC345 Literacy Skills for Students with Dis.*	C	
<b>Science/Special Education Prof. Semester</b>		13
SPEC430 Assess. Ed. Needs & Plan. for Instruction*	C	
SPEC440 Strat. For Teaching St. with Low Inc. Dis.*	C	
SPEC441 Strat. For Teaching St. with High Inc. Dis.*	C	OC
SPEC425 Law and Collaborative Practices*	C	
SCI315 Science Methods II*	C	
<b>Student Teaching</b>		12
SCI493 ST & Practicum Science (6sh)*	C	
SPEC494 ST & Pract. for SPEC grades 7-12(6sh)*	C	
*Denotes Advanced Coursework		

**Secondary General Science/Special Education Dual Certification (BSED) 143 Credits**

**Suggested Course Sequence**

<b>Fall First Year</b>	<b>SH</b>	<b>Spring First Year</b>	<b>SH</b>
SPEC119 or SCI 119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	GEOS131 Principles of Geology II	3
GEOS130 Principles of Geology I	3	PSYC103 Adolescent Development	3
ENGL100 Composition	3	MATH141 Calculus or MATH 107 Statistics	3
SPEC105 Foundations of Special Education	3	SPEC202 Cultural and Linguistic Diversity	3
MATH113 Pre-Calculus or MATH141 Calculus I	3	1 General Education Course	3
	-		-
	<b>16</b>		<b>18</b>
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
CHEM120 Principles of Chemistry I	4	CHEM121 Principles of Chemistry II	4
PHYS130 Physics I	4	PHYS131 Physics II	4
ENGL110 Literature	3	SPEC212 Low Incidence Disabilities Support	3
1 General Education Course	3	<b>BLOCK I</b>	
SPEC215 High Incidence Disabilities Support	3	SCI209 Science Methods I	
GEOS260 Geology Field Trip	1	PSYC201 Educational Psychology	3
	-		3
	<b>18</b>		-
			<b>17</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
PHYS135 Meteorology	3	GEOS120 Oceanography	3
PHYS140 Astronomy I	3	Science Elective	3
Science Elective	3	Science Elective	3
GEOS230 Geomorphology	3	Science Elective	3
SPEC338 Positive Behavior Supports	3	GEOS Geology Field Trip	1
SPEC300 Communication Disorders and Assistive Technology	3	SPEC345 Literacy Instruction for Students with Disabilities	3
	-		-
	<b>18</b>		<b>16</b>
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
<b>BLOCK II</b>		SCI493/494 Student Teaching & Practicum	6
SCI315 Science Methods II	4	SPEC493/494 Student Teaching and Practicum	6
<b>Special Education Block</b>			-
SPEC425 Law and Collaborative Practices	3		<b>12</b>
SPEC430 Assessing Educational Needs and Planning for Instruction	3		
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
	-		
	<b>16</b>		
Advising Notes:		<b>Summer or Intersession Coursework</b>	
1. GE: PLA- one course must be from visual or performing arts		<b>If a 4 year graduation timeline is desired, 4 General Education Courses should be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	<b>12</b>
2. GE: GAC- one course must meet the historical foundations competency			
3. *Denotes Advanced Coursework			



**Secondary Education – Math  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
MATH119: First Year Student Seminar (1)  
MATH141: Calculus 1 (3) [MCT]  
Hist., Behav., and Soc. Sci. (3) [HBS]  
Natural Science (3) [NS]  
Philos., Literary, and Aesth. (3) [PLA]

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Credit Total: 16

**Spring Freshman (example)**

#MATH142: Calculus 2 (3)  
#MATH205: Foundations of Math (3)  
Philos., Literary, and Aesth. (3) [PLA]  
Oral Communication (3) [OC]  
Wellness (3) [WEL]

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Credit Total: 15

**Fall Sophomore (example)**

#MATH243: Calculus 3 (3)  
#COMP160: Programming 1 (3)  
Natural Science with Lab (3) [NS]  
Elective (3) [CT]  
Global Aware. And Citiz. (3) [GAC]

Credit Total: 15

**Spring Sophomore (example)**

#MATH244: Calculus 4 (3)  
#MATH225: History of Math (3) [WC]  
#MATH311: Elem. of Linear Alg (3)  
#COMP161: Programming 2 (3)  
Global Aware. And Citiz. (3) [GAC]

Credit Total: 15

**Fall Junior (example)**

#MATH302: Number Theory (3)  
#MATH307: Foundations of Geom. (3)  
Philos., Literary, and Aesth. (3) [PLA]  
Global Aware. And Citiz. (3) [GAC]  
Elective (3) [CT]

Credit Total: 15

**Spring Junior (example)**

#MATH310: Modern Algebra 1 (3)  
#MATH320: Linear Programming (3)  
Elective (3) [WC]  
Elective (3) [EL]  
Elective (3)

Credit Total: 15

**Fall Senior (example)**

#MATH401: Real Analysis 1 (3)  
#MATH301: Differential Equations (3)  
Elective (2) [EL]  
Hist., Behav., and Soc. Sci. (3) [HBS]  
#MATH313: Mathematical Stats (3)

Credit Total: 14

**Spring Senior (example)**

#MATH3XX or 4XX elective (3)  
#MATH312: Prob and Stats (3)  
Elective (3)  
Elective (3)  
Elective (3)

Credit Total: 15

## Secondary Education: Mathematics with Special Education - Bachelor of Science in Education

Effective Fall 2017

General Education Credit Total		42 sh
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1		
WC Competency 2		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Comp. Thinking</b>		3 sh.
<b>Critical Thinking</b>		
CT Competency 1		
CT Competency 2		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C-	6 sh
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103	C	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110	C-	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1		
EL Competency 2		

Dual Major Coursework Credit Total		88 sh
<b>First Year Student Seminar</b>	Min Grade	
SPEC119: or MATH119: First Year Seminar	CR	1 sh

Major Area and Cognate Courses	Min Grade	
<b>Professional Education</b>		6 sh
#MATH200: Secondary Math Methods 1		3 sh
PSYC201: Educational Psychology		3 sh
<b>Required Mathematics Ed. Content Coursework</b>		38 sh
#MATH125: Intro. To Secondary Mathematics	C	1 sh
#MATH218: Technology in Secondary Mathematics	C	1 sh
#MATH327: Ped. Content Know. in Sec. Ed. Math 1	C	1 sh
#MATH427: Ped. Content Know. in Sec. Ed. Math 2	C	2 sh
#COMP160: Programming 1	C	3 sh
#MATH141: Calculus 1	C	CT
#MATH142: Calculus 2	C	3 sh
#MATH205: Foundations of Mathematics	C	3 sh
#MATH225: History of Mathematics	C	3 sh
#MATH243: Calculus 3	C	3 sh
#MATH244: Calculus 4	C	3 sh
#MATH302: Number Theory	C	3 sh
#MATH307: Foundations of Geometry	C	3 sh
#MATH310: Modern Algebra I	C	3 sh
#MATH311: Elements of Linear Algebra	C	3 sh
#MATH312: Probability and Statistics	C	3 sh
<b>Required Special Education Coursework</b>		18
SPEC105: Foundations of Special Education	C	3 sh
SPEC202: Cultural and Linguistic Diversity	C	GAC
#SPEC215: High Incidence Disabilities Support	C	3 sh
#SPEC212: Low Incidence Disabilities Support	C	3 sh
#SPEC338: Positive Behavior Support	C	3 sh
#SPEC300: Comm. Disorders and Assist. Tech.	C	3 sh
#SPEC345: Literacy Skills for Students with Dis.	C	3 sh
<b>Mathematics Education Professional Semester</b>		4
#MATH316: Methods of Teaching Math 2	C	4 sh
<b>Special Education Professional Semester</b>		9
#SPEC430: Assess. Ed. Needs & Plan. for Instruction	C	3 sh
#SPEC440: Strat. Teach. St. w Low Inc. Dis.	C	3 sh
#SPEC441: Strat. Teach. St. w High Inc. Dis.	C	OC
#SPEC425: Law and Collaborative Practices	C	3 sh
<b>Student Teaching</b>		12
#MATH493/494: ST and Practicum Mathematics	C	6 sh
#SPEC494: ST and Practicum for SPEC grades 7-12	C	6 sh

# BOG Advanced Course Work

**Secondary Mathematics/Special Education Dual Certification (BSED) 130 Credits  
Suggested Course Sequence**

<b>Fall Freshman</b>	<b>Spring Freshman</b>
MATH141: Calculus 1 (3) MATH119 or SPEC119: Freshmen Sem. (1) ENGL100: English Composition (3) PSYC103: Adolescent Development (3) SPEC105: Foundations of SPEC (3) General Education (3) <p align="right">(16)</p>	MATH142: Calculus 2 (3) ENGL110: Introduction to Literature (3) MATH125: Intro to Secondary Math (1) COMP160: Computer Programming 1 (3) SPEC202: Cult/Ling. Div. in Ed. (3) General Education (3) <p align="right">(16)</p>
<b>Fall Sophomore</b>	<b>Spring Sophomore</b>
MATH243: Calculus 3 (3) MATH218: Technology in Secondary Math (1) SPEC215: High Incidence Dis. Support (3) General Education (9) <p align="right">(16)</p>	MATH205: Foundations of Mathematics (3) MATH244: Calculus 4 (3) MATH225: History of Mathematics (3) MATH200: Methods of Teaching Math 1 (3) PSYC201: Educational Psychology (3) SPEC212: Low Incidence Dis. Support (3) <p align="right">(18)</p>
<b>Fall Junior</b>	<b>Spring Junior</b>
MATH307: Foundations of Geometry (3) MATH302: Number Theory (3) SPEC300: Comm. Disord. & Assist. Tech. (3) General Education (9) <p align="right">(18)</p>	MATH310: Modern Algebra (3) MATH312: Probability and Statistics (3) MATH311: Linear Algebra (3) SPEC345: Lit. Inst. for Sts. w/ Disab. (3) SPEC338: Positive Behavior Support (3) MATH327: PCK in Sec. Mathematics 1 (1) <p align="right">(16)</p>
<b>Fall Senior</b>	<b>Spring Senior</b>
MATH427: PCK in Sec. Mathematics (2) MATH316: Methods of Teaching Math 2 (4) SPEC430: Assess. Ed. Needs and Planning (3) SPEC441: Strategies for Teaching w/ High (3) SPEC440: Strategies for Teaching w/ Low (3) SPEC425: Law and Collaborative Practices (3) <p align="right">(18)</p>	MATH493: Student Teaching 1 (6) SPEC494: Student Teaching 2 (6) <p align="right">(12)</p>
	<b>Advising Notes:</b> 1. GE: PLA- one course must be from visual or performing arts 2. GE: GAC- one course must meet the historical foundations competency 3. *Denotes Advanced Coursework





## Secondary Education - Physics

### Suggested Course Sequence

Fall First Year	SH	Spring First Year	SH
SCI119 Freshman Seminar	1	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PHYS170 Intermediate Physics I	4
ENGL100 Composition	3	PSYC103 Adolescent Development	3
1 General Education Course	3	MATH141 Calculus I	3
1 General Education Course	3	ENGL110 Introduction to Literature	3
1 General Education Course	3		-
	<b>17</b>		<b>17</b>
Fall Second Year		Spring Second Year	
BIOL106 Principles of Biology I	3	MATH243 Calculus III	3
PHYS171 Intermediate Physics II	4	PHYS290 Electronics/ PHYS 325 Optics	4
MATH142 Calculus II	3	PHYS330 Mechanics I	3
SPEC204 Cognitive Development of Div. Learners	3	<b>BLOCK I</b>	
1 General Education Course	3	SCI209 Science Methods I	
	-	PSYC201 Educational Psychology	3
	<b>16</b>		3
			-
			<b>16</b>
Fall Third Year		Spring Third Year	
PHYS315 Modern Physics	4	BIOL107 Principles of Biology II	3
PHYS370 Electricity and Magnetism	3	PHYS250 Heat	3
MATH301 Differential Equations	3	PHYS310 Lab Development & Supervision	1
SPEC202 Cultural and Linguistic Div. in Ed.	3	PHYS325 Optics/ PHYS290 Electronics	4
1 General Education Course	3	SPEC345 Literacy Skills. for Students with Disabilities	3
	-	1 General Education Course	3
	<b>16</b>		-
			<b>17</b>
Fall Fourth Year		Spring Fourth Year	
GEOS elective	3	SCI493 Student Teaching & Practicum I	6
1 General Education Course	3	SCI494 Student Teaching & Practicum II	6
SPEC309 Effect. Instruct. Strat. for Stud. With Dis.	3		-
<b>SECONDARY BLOCK II</b>			<b>12</b>
SCI315 Science Methods II	4		
EDUC212 Classroom Management	2		
	-		
	<b>15</b>		

## Secondary Education: Physics with Special Education - Bachelor of Science in Education

For Students entering LHU Fall 2014

General Education Credit Total		42
<b>Intellectual Foundation</b>	Min Grade	9 sh
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>		3 sh
SPEC441 required for the major	C	
<b>Math. and Comp. Thinking</b>		3 sh.
MATH141 required for the major	C	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		21 sh
<b>Natural Science Inquiry</b>	C	6 sh
BIOL106 Required by the major (3sh)	C	
GEOS Elective (3sh)	C	
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
PSYC103 required for the major (3sh)	C-	
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		12 sh
<b>Global Awareness and Citizenship</b>		9 sh
SPEC202 required for the major (3sh)		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		

Dual Major Coursework Credit Total		100
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SCI119 First Year Seminar (1sh)	CR	1

Major Area and Cognate Courses		Min Grade	
<b>Professional Education</b>			9
SCI209 Science Methods 1 (3sh)*			
PSYC201 Educational Psychology (3sh)			
MATH142 Calculus II (3sh)			
<b>Required Physics and Science Coursework</b>			47
PHYS170 Intermediate General Physics I (4sh)	C		
PHYS171 Intermediate General Physics II (4sh)	C		
PHYS250 Heat (3sh)	C		
PHYS290 Electronics (4sh)	C		
PHYS310 Lab Development and Supervision (1sh)	C		
PHYS315 Modern Physics (4sh)	C		
PHYS325 Optics (4sh)	C		
PHYS330 Mechanics I (3sh)	C		
PHYS370 Electricity and Magnetism (3sh)	C		
BIOL107 Principles of Biology II			
CHEM120 Principles of Chemistry I (4sh)	C		
CHEM121 Principles of Chemistry II (4sh)	C		
MATH 243 Calculus III (3sh)	C		
MATH301 Differential Equations (3sh)	C		
<b>Required Special Education Coursework</b>			18
SPEC105 Foundations of Special Education	C		
SPEC202 Cultural and Linguistic Diversity	C		GAC
SPEC215 High Incidence Disabilities Support*	C		
SPEC212 Low Incidence Disabilities Support*	C		
SPEC338 Positive Behavior Support*	C		
SPEC300 Comm. Disorders and Assist. Technology*	C		
SPEC345 Literacy Skills for Students with Dis.*	C		
<b>Science/Special Education Prof. Semester</b>			13
SPEC430 Assess. Ed. Needs & Plan. for Instruction*	C		
SPEC440 Strat. For Teaching St. with Low Inc. Dis.*	C		
SPEC441 Strat. For Teaching St. with High Inc. Dis.*	C		OC
SPEC425 Law and Collaborative Practices*	C		
SCI315 Science Methods II (4sh)*	C		
<b>Student Teaching</b>			12
SCI493 ST & Practicum Science (6sh)*	C		
SPEC494 ST & Pract. for SPEC grades 7-12 (6sh)*	C		

\*Denotes Advanced Coursework

**Secondary Physics/Special Education Dual Certification (BSED) 142 Credits**

**Suggested Course Sequence**

<b>Fall First Year</b>	<b>SH</b>	<b>Spring First Year</b>	<b>SH</b>
SPEC119 or SCI 119 Freshman Seminar	1	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PHYS170 Intermediate Physics I	4
ENGL100 Composition	3	PSYC103 Adolescent Development	3
SPEC105 Foundations of Special Education	3	MATH141 Calculus I	3
GEOS Geoscience Elective	3	SPEC212 Low Incidence Disabilities Support	3
1 General Education Course	3		-
	-		<b>17</b>
	<b>17</b>		
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
BIOL106 Principles of Biology I	3	MATH243 Calculus III	3
PHYS171 Intermediate Physics II	4	PHYS290 Electronics	4
ENGL110 Introduction to Literature	3	PHYS330 Mechanics I	3
MATH142 Calculus II	3	<b>BLOCK I</b>	
SPEC215 High Incidence Disabilities Support	3	SCI209 Science Methods I	3
	-	PSYC201 Educational Psychology	3
	<b>16</b>		-
			<b>16</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
PHYS315 Modern Physics	4	BIOL107 Principles of Biology II	3
PHYS370 Electricity and Magnetism	3	PHYS250 Heat	3
MATH301 Differential Equations	3	PHYS325 Optics	4
SPEC300 Communication Disorders and Assistive Technology	3	SPEC345 Literacy Instruction for Students with Disabilities	
1 General Education Course	3	PHYS310 Lab Development and Supervision	3
	-	SPEC338 Positive Behavior Support	1
	<b>16</b>		3
			-
			<b>17</b>
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
<b>SECONDARY BLOCK II</b>		SCI493/494 Student Teaching & Practicum	6
SCI315 Science Methods II	4	SPEC493/494 Student Teaching and Practicum	6
<b>Special Education Block</b>			-
SPEC425 Law and Collaborative Practices	3		<b>12</b>
SPEC430 Assessing Educational Needs and Planning for Instruction	3		
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
	-		
	<b>16</b>		
<b>Advising Notes</b>		<b>Summer or Intersession Coursework</b>	
Advising Notes:		<b>If a 4 year graduation timeline is desired, SPEC 202 and 4 General Education courses should be completed during summer or intersession as online courses. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	
1. GE: PLA- one course must be from visual or performing arts			
2. GE: GAC- one course must meet the historical foundations competency			
3. *Denotes Advanced Coursework			

## Secondary Education: Social Studies – Bachelor of Science in Education

Effective Fall 2017

<b>General Education Credit Total</b>		<b>42sh</b>
<b>Intellectual Foundation</b>	Min Grade	<b>9 sh</b>
<b>Written Communication</b>		3 sh
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Absorbed by the major		
WC Competency 2 Absorbed by the major		
<b>Oral Communication</b>	C	3 sh
<b>Math. and Computational Thinking</b>		3 sh.
Not MATH107: Basic Statistics 1	C-	
<b>Critical Thinking</b>		
CT Competency 1 Absorbed by the major		
CT Competency 2 Absorbed by the major		

<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>	C-	6 sh
(Rec: BIOL102 CHEM101 or GEOS101)		
SCI110: Science, Technology and Society Required by the major		
<b>Historical, Beh., and Social Science Inq.</b>		6 sh
POLI105: American National Government		
ECON102: Principles of Macroeconomics		
<b>Phil., Literary, and Aesthetic Inquiry</b>		9 sh
ENGL110: Introduction to Literature	C-	
Required by the major		

<b>Global Awareness and Citizenship</b>		9 sh
HIST111: Global History I		
HIST112: Global History II		
POLI107: World Politics		
<b>Wellness</b>		3 sh
<b>Experiential Learning</b>		
EL Competency 1 Absorbed by the major		
EL Competency 2 Absorbed by the major		

<b>First Year Seminar</b>	Min Grade	
SSED119: First Year Student Seminar		<b>1</b>

<b>Major Area and Cognate Courses Credit Total</b>		<b>78 sh</b>
<b>Pre-Professional Education</b>		6
MATH107: Basic Statistics 1	C-	
PSYC103: Adolescent Development	C-	
<b>Required Social Studies Ed. Content Coursework</b>		36
HIST201: U.S. History I	C	
HIST202: U.S. History II	C	
#HIST200: Historical Thinking & Writing	C	
#HIST(3—or4--): Non West Elective	C	
#HIST (3—or4--): Non West Elective	C	
#HIST (3—or4--): Europe Elective	C	
#HIST (3—or4--): U.S. Elective	C	
ECON103: Principles of Microeconomics	C	
GEOG101: World Regional Geography	C	
GEOGxxx: Elective	C	
SOCI101: Introduction to Sociology	C	
#ANTH (3---or4--- ): Elective	C	
<b>Professional Education Coursework</b>		
<b>Required Special Education Coursework</b>		12
#SPEC202: Cultural and Linguistic Diversity	C	
#SPEC204: Cognitive Devel. of Diverse Learners	C	
#SPEC309: Effective Instr. Strat. for Students w/Dis.	C	
#SPEC345: Literacy Skills for Students with Dis.	C	
<b>Social Studies Block I</b>		6
SSED210: Methods of Teaching Social Studies I	C	
PSYC201: Educational Psychology	C	
<b>Social Studies Block II</b>		6
#SSED316: Methods of Teaching Social Studies II	C	
EDUC212: Class. Mgmt in Middle and Sec Setting	C	
<b>Student Teaching</b>		12
#SSED493: ST and Practicum Social Studies I	C	
#SSED494: ST and Practicum Social Studies II	C	
<b># denotes advanced course work</b>		
<b>Total Credits</b>		<b>120</b>

## Secondary Education: Social Studies with Special Education – Bachelor of Science in Education

For Students entering LHU Fall 2014

<b>General Education Credit Total</b>		<b>42</b>
<b>Intellectual Foundation</b>	Min Grade	<b>9 sh</b>
<b>Written Communication</b>		<b>3 sh</b>
ENGL100: Composition (3 sh)	C-	
WC Competency 1 Assumed by the major		
WC Competency 2 Assumed by the major		
<b>Oral Communication</b>	C	<b>3 sh</b>
SPEC441 required for the major		
<b>Math. and Comp. Thinking</b>		<b>3 sh.</b>
Not Math 107	C-	
<b>Critical Thinking</b>		
CT Competency 1 Assumed by the major		
CT Competency 2 Assumed by the major		

<b>Knowledge and Inquiry</b>		<b>21 sh</b>
<b>Natural Science Inquiry</b>	C-	<b>6 sh</b>
(BIOL102, CHEM101 or GEOS101 Recommended)		
SCI110 Required by the major		
<b>Historical, Beh., and Social Science Inq.</b>		<b>6 sh</b>
PSYC103 required for the major	C	
(second course assumed by the major)		
<b>Phil., Literary, and Aesthetic Inquiry</b>		<b>9 sh</b>
ENGL110 required for major	C-	

<b>Personal and Social Responsibility</b>		<b>12 sh</b>
<b>Global Awareness and Citizenship</b>		<b>9 sh</b>
SPEC202 required for the major		
HIST111 required by the major		
HIST112 required by the major		
<b>Wellness</b>		<b>3 sh</b>
<b>Experiential Learning</b>		
EL Competency 1 Assumed by the major		
EL Competency 2 Assumed by the major		
*Denotes Advanced Coursework		

<b>Dual Major Coursework Credit Total</b>		<b>98</b>
<b>First Year Student Seminar</b>	Min Grade	
SPEC119 or SSED119 First Year Seminar	CR	<b>1</b>

<b>Major Area and Cognate Courses</b>	Min Grade	
<b>Professional Education</b>		<b>9</b>
SSED210 Methods of Teaching Social Studies I*		
PSYC201 Educational Psychology		
MATH107 Statistics		
<b>Required Social Studies Ed. Content Coursework</b>		<b>45</b>
HIST111: Global History I	C	GAC
HIST112: Global History II	C	GAC
HIST200: Historical Thinking & Writing	C	
HIST201: U.S. History I	C	
HIST202: U.S. History II	C	
HIST (3—or4--) Non West Elective	C	
HIST (3—or4--) Non West Elective	C	
HIST (3—or4--) Europe Elective	C	
HIST (3—or4--) U.S. Elective	C	
POLI105 American National Government	C	
POLI107 World Politics	C	
ECON101 Principles of Economics	C	
ECON--- Elective	C	
GEOG101 World Regional Geography	C	
GEOG---Elective	C	
SOCI101 Introduction to Sociology	C	
ANTH (3---or4---) Elective	C	
<b>Required Special Education Coursework</b>		<b>18</b>
SPEC105 Foundations of Special Education	C	
SPEC202 Cultural and Linguistic Diversity	C	GAC
SPEC215 High Incidence Disabilities Support*	C	
SPEC212 Low Incidence Disabilities Support*	C	
SPEC338 Positive Behavior Support*	C	
SPEC300 Comm. Disorders and Assist. Technology*	C	
SPEC345 Literacy Skills for Students with Dis.*	C	
<b>Social Studies/Special Education Prof. Semester</b>		<b>13</b>
SPEC430 Assess. Ed. Needs & Plan. for Instruction*	C	
SPEC440 Strat. For Teaching St. with Low Inc. Dis.*	C	
SPEC441 Strat. For Teaching St. with High Inc. Dis.*	C	OC
SPEC425 Law and Collaborative Practices*	C	
SSED316 Methods of Teaching Social Studies II*	C	
<b>Student Teaching</b>		<b>12</b>
SSED493/494 ST and Practicum Social Studies*	C	
SPEC494 ST and Practicum for SPEC grades 7-12*	C	

**Secondary Social Studies/Special Education Dual Certification (BSED) 140Credits**

**Suggested Course Sequence**

<b>Fall First Year</b>	SH	<b>Spring First Year</b>	SH
SPEC119 Freshman Seminar	1	PSYC103 Adolescent Development	3
English Composition	3	SPEC202 Cultural and Linguistic Diversity	3
SPEC105 Foundations of Special Education	3	HIST112 Global History 2	3
HIST111 Global History I	3	POLI/GEOG/SOCI	3
MATH101 or higher (by placement)	3	MATH107 Statistics	3
POLI/GEOG/SOCI	3	General Education Course	3
	-		-
	<b>16</b>		<b>18</b>
<b>Fall Second Year</b>		<b>Spring Second Year</b>	
Literature	3	SPEC212 Low Incidence Disabilities Support	3
SPEC215 High Incidence Disabilities Support	3	<b>Social Studies Block I</b>	
HIST200 Historical Thinking and Writing	3	SSED210 Social Studies Methods I	3
HIST201 US History 1	3	PSYC201 Educational Psychology	3
ECON101	3	HIST202 US History 2	3
General Education Course	3	POLI/GEOG/SOCI	3
	-	General Education Course	3
	<b>18</b>		-
			<b>18</b>
<b>Fall Third Year</b>		<b>Spring Third Year</b>	
SPEC300 Communication Disorders and Assistive Technology	3	SPEC345 Literacy Instruction for Students with Disabilities	3
SPEC338 Positive Behavior Supports	3	ECON3xx	
POLI/GEOG/SOCI	3	POLI/GEOG/SOCI	3
ANTH3xx	3	HIST3xx	3
HIST3xx	3	HIST3xx	3
HIST3xx	3	General Education Course	3
	-		-
	<b>18</b>		<b>18</b>
<b>Fall Fourth Year</b>		<b>Spring Fourth Year</b>	
<b>Special Education Block</b>		SSED493/494 Student Teaching & Practicum	6
SPEC425 Law and Collaborative Practices	3	SPEC493/494 Student Teaching and Practicum	6
SPEC430 Assessing Educational Needs and Planning for Instruction	3		-
SPEC440 Strategies for Teaching Students with Low Incidence Disabilities	3		<b>12</b>
SPEC441 Strategies for Teaching Students with High Incidence Disabilities	3		
<b>Social Studies Block II</b>			
SSED316 Social Studies Methods II	4		
	-		
	<b>16</b>		
Advising Notes:		<b>Summer or Intersession Coursework</b>	
1. GE: PLA- one course must be from visual or performing arts		<b>If a 4 year graduation timeline is desired, 3 General Education Courses should be completed in the summer or during intersession. Additional coursework may be completed in the summer if a reduced load is desired per the recommended sequence, a minor is being sought, or an earlier graduation timeline is desired. Many general education courses are taught online. Several special education courses are also taught online and are available during the summer.</b>	<b>9</b>
2. *Denotes Advanced Coursework			



**Social Work Department  
Suggested Course Sequence**

**Fall Freshman (example)**

ENGL100: Composition (3)  
SOCW119: First Year Seminar (1)  
SOCW102 Intro to Social Work (3)  
BIOL101 Basic Biology (3)  
SOC101 Intro to Sociology (3)  
Psychology (3)

Credit Total: 16

**Spring Freshman (example)**

SOCW110 Diverse Populations (3)  
MATH107 Basic Statistics (3)  
BIOL130 Human Bio for S.W. (3)  
Philosophical, Literary, Aesthetic Inq. (3)  
Wellness (3)

Credit Total: 15

**Fall Sophomore (example)**

SOCW201 Human Behavior 1 (3)  
SOCW215 Mental Health (3)  
Philosophical, Literary, Aesthetic Inq. (3)  
Global Awareness & Citizenship (3)  
Free Elective (3)

Credit Total: 15

**Spring Sophomore(example)**

SOCW203 Human Behavior 2 (3)  
SOCW301 Social Work Practice 1 (3)  
SOCW210 Case Management 1 (3)  
Lab or Non-lab Science (3)  
Global Awareness & Citizenship (3)

Credit Total: 15

**Fall Junior (example)**

SOCW335 SW Practice with Groups (3)  
SOCW412 Applied Social Research (3)  
Philosophical, Literary, Aesthetic Inq. (3)  
Oral Communication (3)  
Free Elective (2)

Credit Total: 14

**Spring Junior (example)**

SOCW302 SW with Families (3)  
SOCW404 Rural Social Work (3)  
SOCW425 Intro to Policy (3)  
Free Elective (3)  
Free Elective (3)

Credit Total: 15

**Fall Senior (example)**

SOCW450 Social Work Elective (3)  
SOCW450 Social Work Elective (3)  
Free Elective (3)  
Free Elective (3)

Credit Total: 12

**Spring Senior (example)**

SOCW426 Advanced Social Policy (3)  
SOCW401 Field Instruction 1 (6)  
SOCW402 Field Instruction 2 (6)  
SOCW420 Field Seminar (3)

Credit Total: 18



## Sociology – Bachelor of Science

Effective: Fall 2017

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107: Basic Statistics 1	
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b> (at least one lab)	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
SOCI101: Introduction to Sociology	3 sh
<b>Philosophical, Literary and Aesthetic Inquiry</b>	<b>9 sh</b>
One course must be philosophy or literature. One must be visual or performance arts	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
One course must fulfill the historical foundation component of the competency	
POLI107: World Politics	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HIST119: First Year Student Seminar	

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Sociology Core Requirements</b>	<b>18 sh</b>
#SOCI203: Social Problems	
#SOCI205: Race and Ethnic Relations	
#SOCI206: Marriage and Family	
#SOCI352: Sociological Theory	
#SOCI354: Social Change	
#SOCI404: Sociological Research	
<b>Required Sociology Cognates</b>	<b>21 sh</b>
ANTHxxx: any Anthropology course	
ANTHxxx: any Anthropology course	
COMP150: Introduction to Computers	
ECON102: Principles of Macroeconomics OR	
ECON103: Principles of Microeconomics	
GEOGxxx: any Geography course	
#GEOG440: Economic Geography	
POLI105: American National Government	
<b>Sociology and Cognate Electives</b>	<b>21 sh</b>
<b>Select 7 of the following</b>	
#SOCI300: Sociology of Deviance	
#SOCI301: Juvenile Delinquency	
#SOCI302: Criminology	
#SOCI328: Social Science Seminar (can be repeated)	
#SOCI351: Urban-Rural Sociology	
#SOCI360/SOCW360: Death and Dying	
#SOCI369: Internship (3-6 sh)	
#SOCI402: Industrial Sociology	
#SOCI403: Gerontology	
#SOCI410: Sociology of Organizations	
#SOCI499: Independent Study (can be repeated)	
#CRJS305: Corrections	
#EDTF300: Educational Technology	
#MATH108: Basic Statistics II	
#Up to 9 hours Foreign Language levels 2-4	
"#" means advanced coursework	

**Sociology Major  
Suggested Course Sequence**

<p><b>Fall Freshman (example)</b> ENGL100: Composition (3) HIST119: First Year Student Seminar (1) SOC1101: Introduction to Sociology (3) General Education/Elective (8)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Freshman (example)</b> COMP150: Introduction to Computers (3) ANTHxxx (3) GEOGxxx (3) General Education/Elective (6)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Sophomore (example)</b> SOC1203: Social Problems (3) SOC1205: Race and Ethnic Relations (3) ANTHxxx (3) POLI105 (HBS) or POLI107 (HBS or GAC) (3) General Education/Elective (3)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Sophomore (example)</b> SOC1206: Marriage and Family (3) MATH107: Basic Statistics 1 (3) General Education/Elective (9)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Junior (example)</b> ECON101: Principles of Economics (3) SOC13xx, SOC14xx or cognate (3) SOC1 354: Social Change (3) General Education/Elective (6)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Junior (example)</b> SOC1352: Sociological Theory (3) SOC13xx, SOC1 4xx or cognate (3) SOC13xx, SOC1 4xx or cognate (3) GEOG440: Economic Geography (3) General Education/Elective (3)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Senior (example)</b> SOC13xx, SOC14xx or cognate (3) SOC13xx, SOC14xx or cognate (3) SOC13xx, SOC14xx or cognate (3) General Education/Elective (6)</p> <p style="text-align: center;">Credit Total 15</p>	<p><b>Spring Senior (example)</b> SOC1404: Sociological Research (3) SOC13xx, SOC14xx or cognate (3) General Education/Elective (9)</p> <p style="text-align: center;">Credit Total: 15</p>

EL-Experiential Learning; GAC=Global Awareness and Citizenship; HBSS = Historical, Behavioral and Social Sciences Inquiry; NS = Natural Science Inquiry  
OC = Oral Communication; PLA = Philosophical, Literary and Aesthetic Inquiry

## Sociology: Delinquent Youth Analysis – Bachelor of Science

For Students entering LHU Spring 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	3 sh
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107: Basic Statistics	3 sh
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
SOCI101: Introduction to Sociology	3 sh
<b>Philosophical, Literary and Aesthetic Inquiry</b>	<b>9 sh</b>
One course must be philosophy or literature. One must be visual or performance arts	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
One course must fulfill the historical foundation component of the competency	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Sociology Core Requirements</b>	<b>18 sh</b>
#SOCI203: Social Problems	
#SOCI205: Race and Ethnic Relations	
#SOCI206: Marriage and Family	
#SOCI352: Sociological Theory	
#SOCI354: Social Change	
#SOCI404: Sociological Research	

<b>Required Sociology Cognates</b>	<b>6 sh</b>
ANTH101: Introduction to Anthropology OR ANTH102: Cultural Anthropology COMP150: Introduction to Computers	
<b>DYA Concentration</b>	<b>18 sh</b>
#SOCI300: Sociology of Deviance	
#SOCI301: Juvenile Delinquency	
<b>DYA Concentration Cognates</b>	
PSYC103: Adolescent Development	
CRJS102: Introduction to Criminal Justice	
#CRJS205: Drug Abuse OR #HLTH320: Drug Education OR #PSYC322: Drugs and Human Behavior #CRJS302: Criminology	

<b>Sociology Electives (Select 6 of the following sociology and cognate electives)</b>	<b>18 sh</b>
#SOCI328: Social Science Seminar (can be repeated)	
#SOCI351: Urban-Rural Sociology	
#SOCI/SOCW360: Death and Dying	
#SOCI369: Internship (1-9 sh)	
#SOCI402: Industrial Sociology	
#SOCI403: Gerontology	
#SOCI410: Sociology of Organizations	
#SOCI499: Independent Study	
<b>Cognate Electives</b>	
#CRJS215 American Gangs	
#CRJS305: Corrections	
ECON101: Principles of Economics	
#EDTF300: Educational Technology	
GEOG2XX or 3XX (any upper level course but limited to 3sh)	
#Math108 Basic Statistics II	
#SOCW415 Child Welfare	
# Up to 9 hours of Foreign Language levels 2-4	

**Sociology Major: Delinquent Youth Analysis Concentration  
Suggested Course Sequence**

<p><b>Fall Freshman (example)</b> ENGL100: Composition (3) HIST119: First Year Student Seminar (1) SOCI101: Introduction to Sociology (3) General Education (9)</p> <p align="center">Credit Total: 16</p>	<p><b>Spring Freshman (example)</b> COMP150: Introduction to Computers (3) ANTH101: Introduction to Anthropology OR     ANTH102: Cultural Anthropology (3) PSYC103: Adolescent Development (3) General Education (6)</p> <p align="center">Credit Total: 15</p>
<p><b>Fall Sophomore (example)</b> SOCI203: Social Problems (3) SOCI205: Race and Ethnic Relations (3) CRJS102: Introduction to Criminal Justice (3) General Education (6)</p> <p align="center">Credit Total: 15</p>	<p><b>Spring Sophomore (example)</b> SOCI206: Marriage and Family (3) SOCI3xx, SOCI4xx or cognate (3) MATH107: Basic Statistics 1 (3) General Education (6)</p> <p align="center">Credit Total: 15</p>
<p><b>Fall Junior (example)</b> SOCI300: Sociology of Deviance OR     SOCI301: Juvenile Delinquency (3) SOCI354: Social Change (3) SOCI3xx or SOCI4xx or cognate elective (3) CRJS302: Criminology (3) General Education (3)</p> <p align="center">Credit Total: 15</p>	<p><b>Spring Junior (example)</b> SOCI352: Sociological Theory (3) CRJS205: Drug Abuse OR HLTH320: Drug Education OR     PSYC322: Drugs and Human Behavior (3) SOCI3xx, SOCI 4xx or cognate (3) General Education (6)</p> <p align="center">Credit Total: 15</p>
<p><b>Fall Senior (example)</b> SOCI300: Sociology of Deviance OR     SOCI301: Juvenile Delinquency (3) SOCI3xx, SOCI4xx or cognate (3) SOCI3xx, SOCI4xx or cognate (3) General Education (6)</p> <p align="center">Credit Total 15</p>	<p><b>Spring Senior (example)</b> SOCI404: Sociological Research (3) SOCI3xx, SOCI4xx or cognate (3) General Education (9)</p> <p align="center">Credit Total: 15</p>

EL-Experiential Learning; GAC=Global Awareness and Citizenship; HBSS = Historical, Behavioral and Social Sciences Inquiry; NS = Natural Science Inquiry OC = Oral Communication; PLA = Philosophical, Literary and Aesthetic Inquiry

## Sociology: Industry and Economics – Bachelor of Science

Effective Fall 2017

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
MATH107: Basic Statistics I	3 sh
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
One course must be a lab science	
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
SOCI101: Introduction to Sociology	3 sh
<b>Philosophical, Literary and Aesthetic Inquiry</b>	<b>9 sh</b>
One course must be philosophy or literature. One must be visual or performance arts	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
One course must fulfill the historical foundation component of the competency	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
HIST119: First Year Student Seminar	

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Sociology Core Requirements</b>	<b>12 sh</b>
#SOCI203: Social Problems	
#SOCI205: Race and Ethnic Relations	
#SOCI352: Sociological Theory	
#SOCI404: Sociological Research	

<b>Required Sociology Cognates</b>	<b>12 sh</b>
ANTH101: Introduction to Anthropology OR ANTH102: Cultural Anthropology	
COMP150: Introduction to Computers	
ECON102: Principles of macroeconomics	
ECON103: Principles of microeconomics	

<b>IEC Concentration</b>	<b>15 sh</b>
#SOCI351: Urban-Rural Sociology	
#SOCI402: Industrial Sociology	
#SOCI410: Sociology of Organizations	
#SOCI425: Economic Sociology	
#GEOG440: Economic Geography	

<b>Sociology and Cognate Electives</b>	<b>21 sh</b>
#SOCI206: Marriage and Family	
#SOCI328: Social Science Seminar (can be repeated)	
#SOCI354: Social Change	
#SOCI/SOCW360: Death and Dying	
#SOCI369: Internship (1-6 sh)	
#SOCI403: Gerontology	
#SOCI499: Independent Study	
#GEOG 2XX or 3XX (any upper level course but limited to 3sh)	
#MANG302: Business Law OR #MANG315: Management: Concepts and Strategies	
#MATH108 Basic Statistics II	
# Up to 9 hours of Foreign Language levels 2-4	

"#" means advanced coursework

**Sociology Major: Industry and Economics Concentration**  
**Suggested Course Sequence**

<p><b>Fall Freshman (example)</b>  ENGL100: Composition (3)  HIST119: First Year Student Seminar (1)  SOC101: Introduction to Sociology (3)  General Education (8)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Freshman (example)</b>  COMP150: Introduction to Computers (3)  ANTH101 Intro to Anthropology or      ANTH102 Cultural Anthropology (3)  ECON 102 Macroeconomics  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Sophomore (example)</b>  SOC1203: Social Problems (3)  SOC1205: Race and Ethnic Relations (3)  MATH107 (3)  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Sophomore (example)</b>  ECON 103 Microeconomics (3)  SOC1351 Urban-Rural Sociology (3)  SOC12xx, SOC13xx, SOC14xx or cognate elective (3)  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Junior (example)</b>  GEO440: Economic Geography (3)  SOC12xx, SOC13xx, SOC14xx or cognate elective (6)  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>	<p><b>Spring Junior (example)</b>  SOC1352: Sociological Theory (3)  SOC1402: Industrial Sociology (3)  SOC12xx, SOC13xx, SOC14xx or cognate elective (3)  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>
<p><b>Fall Senior (example)</b>  SOC1410: Sociology of Organizations (3)  SOC12xx, SOC13xx, SOC14xx or cognate elective (6)  General Education (6)</p> <p style="text-align: center;">Credit Total 15</p>	<p><b>Spring Senior (example)</b>  SOC1404: Sociological Research (3)  SOC14xx: Sociology of Economics (3)  SOC13xx, SOC14xx elective (3)  General Education (6)</p> <p style="text-align: center;">Credit Total: 15</p>

EL-Experiential Learning; GAC=Global Awareness and Citizenship; HBSS = Historical, Behavioral and Social Sciences Inquiry; NS = Natural Science Inquiry  
OC = Oral Communication; PLA = Philosophical, Literary and Aesthetic Inquiry

## Sport Administration - Bachelor of Science

(For Students entering LHU Fall 2014)

<b>GENERAL EDUCATION</b>	<b>42 sh</b>
<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	Sem/Grade
WC Competency 1 = SPRT324	
WC Competency 2 = SPRT465	
<b>Oral Communication</b>	<b>3 sh</b>
	Sem/Grade
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
	Sem/Grade
<b>Critical Thinking</b>	
CT Competency 1 = SPRT321	
CT Competency 2 = SPRT337	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
Science with lab	Sem/Grade
Science with/without lab	Sem/Grade
<b>Historical, Behavioral &amp; Social Science Inquiry</b>	<b>6 sh</b>
	Sem/Grade
	Sem/Grade
<b>Philosophical, Literary &amp; Aesthetic Inquiry</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade
	Sem/Grade

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade
	Sem/Grade
<b>Wellness</b>	<b>3 sh</b>
	Sem/Grade
<b>Experiential Learning</b>	
EL Competency 1 = SPRT450	
EL Competency 2 = SPRT450	

<b>SPORT ADMINISTRATION MAJOR</b>	<b>60 sh</b>
ACCT110 Financial Accounting	Sem/Grade
SPRT106: Intro to Sport Administration (Meets First Year Seminar Requirement)	Sem/Grade
SPRT208: Intro to Sport & Ex Psychology# OR	Sem/Grade
SPRT305: Psychology of Coaching#	
SPRT223: Contemporary Issues in SA	Sem/Grade
SPRT233: Sales, Sponsorship, Fundraising	Sem/Grade
SPRT321: Management/Leadership of Sport#	Sem/Grade
SPRT323: Sport and Society#	Sem/Grade
SPRT324: Sport Law and Ethics#	Sem/Grade
SPRT332: Sport Marketing Management#	Sem/Grade
SPRT335: Sport Admin & Community Relat#	Sem/Grade
SPRT337: Governance of Sport#	Sem/Grade
SPRT340: Sport Media Communications#	Sem/Grade
SPRT350: Field Participation#	Sem/Grade
SPRT401: Sport Facility Management/Op #	Sem/Grade
SPRT402: Sport Business Finance#	Sem/Grade
SPRT450: Field Experience in Sport Admin#	Sem/Grade
SPRT465: Organization/Administration of SA#	Sem/Grade
<b>NOTES:</b>	
Must have "C" in all major required courses	
Must have a 2.0 in the major and overall	
Must have a 2.25 to transfer into Sport Admin	
SPRT450: Field Experience in Sport Admin is a credit bearing course to which all tuition and fees apply.	

<b>Electives</b>	<b>18 sh</b>
Students are encouraged to consider using electives to complete minors including the Sport and Exercise Psychology, Business and Coaching Minors	Sem/Grade
	Sem/Grade
	Sem/Grade
<b>Other Recommendations</b>	Sem/Grade
COMP150: Introduction to Computers	Sem/Grade
ENGL345 Business Writing	Sem/Grade

**Sport Administration  
Suggested Course Sequence**

**Fall Freshman (example)**

SPRT106 Intro. Sport Administration	3
ENGL100: Composition	3
GE Global Awareness and Citizenship	3
GE Hist/Behavioral/Social Science Inquiry	3
GE Wellness	3

Credit Total 15

**Spring Freshman (example)**

SPRT223 Cont. Issues & Problems in Sport Admin.	3
SPRT233 Sport Sales, Sponsorship, & Fundraising	3
GE Philosophical, Literary and Aesthetic Inquiry	3
GE Math and Computational Thinking	3
GE Global Awareness and Citizenship	3

Credit Total 15

**Fall Sophomore (example)**

SPRT208 Intro to Sport & Exercise Psychology	3
<b>OR</b>	
SPRT305 Psychology of Coaching	
SPRT321 Manage. & Leadership of Sport	3
ACCT110 Financial Accounting	3
GE Natural Science Inquiry (without lab)	3
GE Philosophical, Literary and Aesthetic Inquiry	3

Credit Total 15

**Spring Sophomore (example)**

SPRT323 Sport and Society	3
SPRT332 Sport Marketing	3
SPRT350 Field Participation in Sport Admin	3
GE Natural Science Inquiry (with lab)	3
Free Elective	3

Credit Total 15

**Fall Junior (example)**

SPRT324 Sport Law and Ethics	3
SPRT337 Governance of Sport	3
GE Philosophical, Literary and Aesthetic Inquiry	3
GE Hist/Behavioral/Social Science Inquiry	3
Free Elective	3

Credit Total 15

**Spring Junior (example)**

SPRT335 Sport Admin. & Community Relations	3
SPRT340 Sport Media Communication Relations	3
GE Global Awareness and Citizenship	3
Free Elective	3
Free Elective	3

Credit Total 15

**Fall Senior (example)**

SPRT401 Sport Facility Management and Oper	3
SPRT402 Sport Business Finance	3
SPRT465 Org/Admin of Sport & Athletic Prog	3
GE Oral Communication	3
Free Elective	3
Free Elective	3

Credit Total 18

**Spring Senior (example)**

SPRT450 Prof. Field Experience in Sport Admin.	12
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Credit Total 12



## Sport Administration: Accelerated – Bachelor of Science

### Sport and Exercise Psychology Track

Effective: Spring 2017

<b>GENERAL EDUCATION</b>	<b>42 sh</b>
<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	Sem/Grade
WC Competency 1 = SPRT324	
WC Competency 2 = SPRT465	
<b>Oral Communication</b>	<b>3 sh</b>
	Sem/Grade
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
	Sem/Grade
<b>Critical Thinking</b>	
CT Competency 1 = SPRT321	
CT Competency 2 = SPRT337	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
Science with lab	Sem/Grade
Science with/without lab	Sem/Grade
<b>Historical, Behavioral &amp; Social Science Inquiry</b>	<b>6 sh</b>
	Sem/Grade
	Sem/Grade
<b>Philosophical, Literary &amp; Aesthetic Inquiry</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade
	Sem/Grade
<b>Wellness</b>	<b>3 sh</b>
	Sem/Grade
<b>Experiential Learning</b>	
EL Competency 1 = SPRT450	
EL Competency 2 = SPRT450	

<b>SPORT ADMINISTRATION MAJOR</b>	<b>60 sh</b>
ACCT110 Financial Accounting (3 sh)	Sem/Grade
SPRT106: Intro to Sport Administration (3 sh) (Meets First Year Seminar Requirement)	Sem/Grade
SPRT208: Intro to Sport & Ex Psych# (3 sh) OR	Sem/Grade
SPRT305: Psychology of Coaching# (3 sh)	
SPRT223: Contemporary Issues in SA (3 sh)	Sem/Grade
SPRT233: Sales, Sponsorship, Fundrais (3 sh)	Sem/Grade
SPRT321: Mngmnt/Leadership of Sport# (3 sh)	Sem/Grade
SPRT323: Sport and Society# (3 sh)	Sem/Grade
SPRT324: Sport Law and Ethics# (3 sh)	Sem/Grade
SPRT332: Sport Marketing Management# (3 sh)	Sem/Grade
SPRT335: Sport Admin & Comm Relat# (3 sh)	Sem/Grade
SPRT337: Governance of Sport# (3 sh)	Sem/Grade
SPRT340: Sport Media Communications# (3 sh)	Sem/Grade
SPRT350: Field Participation# (3 sh)	Sem/Grade
SPRT401: Sport Facility Managmnt/Op # (3 sh)	Sem/Grade
SPRT402: Sport Business Finance# (3 sh)	Sem/Grade
SPRT450: Field Exp in Sport Admin# (12 sh)	Sem/Grade
SPRT465: Organization/Admin of SA# (3 sh)	Sem/Grade

<b>Electives</b>	<b>6sh</b>
	Sem/Grade
	Sem/Grade

<b>NOTES:</b>
Must have "C" or better in all major required courses # = upper level course
SPRT450: Field Experience in Sport Admin is a credit bearing course to which all tuition and fees apply.

**Accelerated BS in Sport Administration to MS in Sport Science  
Sport and Exercise Psychology Track  
Suggested Course Sequence**

**Fall Freshman (example)**

SPRT106 Intro. Sport Administration	3
ENGL100: Composition	3
GE Global Awareness and Citizenship	3
GE Hist/Behavioral/Social Science Inquiry	3
GE Wellness	3
<b>Credit Total</b>	<b>15</b>

**Spring Freshman (example)**

SPRT223 Cont. Issues & Problems in Sport Admin.	3
SPRT233 Sport Sales, Sponsorship, & Fundraising	3
GE Philosophical, Literary and Aesthetic Inquiry	3
GE Math and Computational Thinking	3
GE Global Awareness and Citizenship	3
<b>Credit Total</b>	<b>15</b>

**Fall Sophomore (example)**

SPRT208 Intro to Sport & Exercise Psychology	3
<b>OR</b>	
SPRT305 Psychology of Coaching	
SPRT321 Manage. & Leadership of Sport	3
ACCT110 Financial Accounting	3
GE Natural Science Inquiry (without lab)	3
GE Philosophical, Literary and Aesthetic Inquiry	3
<b>Credit Total</b>	<b>15</b>

**Spring Sophomore (example)**

SPRT323 Sport and Society	3
SPRT332 Sport Marketing	3
SPRT350 Field Participation in Sport Admin	3
GE Natural Science Inquiry (with lab)	3
GE Global Awareness and Citizenship	3
<b>Credit Total</b>	<b>15</b>

**Fall Junior (example)**

SPRT324 Sport Law and Ethics	3
SPRT337 Governance of Sport	3
SPRT335 Sport Media Communication Relation	3
GE Hist/Behavioral/Social Science Inquiry	3
GE Philosophical, Literary and Aesthetic Inquiry	3
Elective	3
<b>Credit Total</b>	<b>18</b>

**Spring Junior (example)**

SPRT340 Sport Media Communication Relations	3
SPRT401 Sport Facility Management and Oper	3
SPRT402 Sport Business Finance	3
SPRT465 Org/Admin of Sport & Athletic Prog	3
GE Oral Communication	3
Elective	3
<b>Credit Total</b>	<b>18</b>

**Summer**

SPRT450 Prof. Field Experience in Sport Admin.	12
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**Graduate Program**

**Fall**

SPRT600: Research Methods in Sport Science	3
SPRT602: Professional Ethics in Sport/Ex Psych	3
SPRT613: Psychology of Injury and Illness	3
<b>Credit Total</b>	<b>9</b>

**Spring Freshman**

SPRT601: Sport in American Culture	3
SPRT610: Foundations of Spor/Ex Psych	3
SPRT614: Legal and Policy Issues	3
<b>Credit Total</b>	<b>9</b>

**Summer 1**

SPRT611: Sport Psych for Perf Enhancement	3
<b>Credit Total</b>	<b>3</b>

**Summer 2**

SPRT612: Sport/Ex Psych across the Lifespan	3
SPRT Elective	3
<b>Credit Total</b>	<b>6</b>

**Summer Extended**

SPRT630: Capstone in Sport Science	
<b>Credit Total</b>	<b>3</b>

## Accelerated BS in Sport Administration to MS in Sport Science

### Sport Administration Track

Effective: Spring 2017

GENERAL EDUCATION	42 sh
<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>3 sh</b>
ENGL100: Composition (3 sh)	Sem/Grade
WC Competency 1 = SPRT324	
WC Competency 2 = SPRT465	
<b>Oral Communication</b>	<b>3 sh</b>
	Sem/Grade
<b>Mathematical and Computational Thinking</b>	<b>3 sh.</b>
	Sem/Grade
<b>Critical Thinking</b>	
CT Competency 1 = SPRT321	
CT Competency 2 = SPRT337	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>6 sh</b>
Science with lab	Sem/Grade
Science with/without lab	Sem/Grade
<b>Historical, Behavioral &amp; Social Science Inquiry</b>	<b>6 sh</b>
	Sem/Grade
	Sem/Grade
<b>Philosophical, Literary &amp; Aesthetic Inquiry</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade
	Sem/Grade

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
	Sem/Grade
	Sem/Grade
	Sem/Grade
<b>Wellness</b>	<b>3 sh</b>
	Sem/Grade
<b>Experiential Learning</b>	
EL Competency 1 = SPRT450	
EL Competency 2 = SPRT450	

SPORT ADMINISTRATION MAJOR	60 sh
ACCT110 Financial Accounting (3 sh)	Sem/Grade
SPRT106: Intro to Sport Administration (3 sh) (Meets First Year Seminar Requirement)	Sem/Grade
SPRT208: Intro to Sport & Ex Psych# (3 sh) OR	Sem/Grade
SPRT305: Psychology of Coaching# (3 sh)	
SPRT223: Contemporary Issues in SA (3 sh)	Sem/Grade
SPRT233: Sales, Sponsorship, Fundrais (3 sh)	Sem/Grade
SPRT321: Mngmnt/Leadership of Sport# (3 sh)	Sem/Grade
SPRT323: Sport and Society# (3 sh)	Sem/Grade
SPRT324: Sport Law and Ethics# (3 sh)	Sem/Grade
SPRT332: Sport Marketing Management# (3 sh)	Sem/Grade
SPRT335: Sport Admin & Comm Relat# (3 sh)	Sem/Grade
SPRT337: Governance of Sport# (3 sh)	Sem/Grade
SPRT340: Sport Media Communications# (3 sh)	Sem/Grade
SPRT350: Field Participation# (3 sh)	Sem/Grade
SPRT401: Sport Facility Managmnt/Op # (3 sh)	Sem/Grade
SPRT402: Sport Business Finance# (3 sh)	Sem/Grade
SPRT450: Field Exp in Sport Admin# (12 sh)	Sem/Grade
SPRT465: Organization/Admin of SA# (3 sh)	Sem/Grade

Electives	6sh

Notes
Must have "C" or better in all major required courses # = upper level course
SPRT450: Field Experience in Sport Admin is a credit bearing course to which all tuition and fees apply.

**Accelerated BS in Sport Administration to MS in Sport Science - Sport Administration Track  
Suggested Course Sequence**

**Fall Freshman (example)**

SPRT106 Intro. Sport Administration	3
ENGL100: Composition	3
GE Global Awareness and Citizenship	3
GE Hist/Behavioral/Social Science Inquiry	3
GE Wellness	3
<b>Credit Total</b>	<b>15</b>

**Spring Freshman (example)**

SPRT223 Cont. Issues & Problems in Sport Admin.	3
SPRT233 Sport Sales, Sponsorship, & Fundraising	3
GE Philosophical, Literary and Aesthetic Inquiry	3
GE Math and Computational Thinking	3
GE Global Awareness and Citizenship	3
<b>Credit Total</b>	<b>15</b>

**Fall Sophomore (example)**

SPRT208 Intro to Sport & Exercise Psychology	3
<b>OR</b>	
SPRT305 Psychology of Coaching	
SPRT321 Manage. & Leadership of Sport	3
ACCT110 Financial Accounting	3
GE Natural Science Inquiry (without lab)	3
GE Philosophical, Literary and Aesthetic Inquiry	3
<b>Credit Total</b>	<b>15</b>

**Spring Sophomore (example)**

SPRT323 Sport and Society	3
SPRT332 Sport Marketing	3
SPRT350 Field Participation in Sport Admin	3
GE Natural Science Inquiry (with lab)	3
GE Global Awareness and Citizenship	3
<b>Credit Total</b>	<b>15</b>

**Fall Junior (example)**

SPRT324 Sport Law and Ethics	3
SPRT337 Governance of Sport	3
SPRT335 Sport Media Communication Relation	3
GE Hist/Behavioral/Social Science Inquiry	3
GE Philosophical, Literary and Aesthetic Inquiry	3
Elective	3
<b>Credit Total</b>	<b>18</b>

**Spring Junior (example)**

SPRT340 Sport Media Communication Relations	3
SPRT401 Sport Facility Management and Oper	3
SPRT402 Sport Business Finance	3
SPRT465 Org/Admin of Sport & Athletic Prog	3
GE Oral Communication	3
Elective	3
<b>Credit Total</b>	<b>18</b>

**Summer**

SPRT450 Prof. Field Experience in Sport Admin.	12
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**Graduate Program**

**Fall**

SPRT600: Research Methods in Sport Science	3
SPRT602: Ethics in Sport	3
SPRT621: Financial Management in Sport	3
<b>Credit Total</b>	<b>9</b>

**Spring Freshman**

SPRT601: Sport in American Culture	3
SPRT622: Marketing and Public Relations	3
SPRT623: Legal and Policy Issues	3
<b>Credit Total</b>	<b>9</b>

**Summer 1**

SPRT620: Leadership in Sport Organizations	3
<b>Credit Total</b>	<b>3</b>

**Summer 2**

SPRT Elective	3
<b>Credit Total</b>	<b>3</b>

**Summer Extended**

SPRT624: Advanced Field Experience	6
<b>OR</b>	
SPRT630: Capstone in Sport Science (3 credits) and Elective in Summer 1 or Summer 2 (3 credits)	
<b>Credit Total</b>	<b>6</b>

## Studio Art – Bachelor of Fine Arts

### Specialization in 2-D Art

Effective: Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (at least one lab)</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART103: Introduction to Art (3 sh)	
Choose Two additional courses from PLA	
One must be Philosophy or Literature	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
(at least one with GAC-Historical Foundation)	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>6 sh</b>
<b>Total University Requirements</b>	<b>48 sh</b>

<b>Major Area and Cognate Courses</b>	<b>72 sh</b>
VAPA119: First Year Student Seminar	1 sh

<b>Core (3-D) Requirements</b>	<b>37 sh</b>
ART105: Introduction to 3-D Design	3 sh
ART110: Color & 2-Dimensional Design	3 sh
ART112: Drawing 1	3 sh
#ART210: Materials & Techniques	3 sh
#ART217: Electronic (Digital) Art	3 sh
#ART312: Drawing 2	3 sh
#ART325: Printmaking	3 sh
#ART330: Painting	3 sh
#ART335: Sculpture	3 sh
#ART350: Photo <i>or</i> ART318: Digital Photo	3 sh
#ART355: Life Studies	3 sh
#ART440: A.P.E.	3 sh
#ART490: Senior Capstone	1 sh
<b># Art History</b>	<b>9 sh</b>
Select Three Courses from the following:	
ART301: Renaissance & Baroque Art	
ART304: Ancient and Medieval Art	
ART307: Asian Art	
ART401: Modern Art	
ART420: Art Since 1950	
ART430: American Art	
<b># Intermediate &amp; Advanced 2-D Studio</b>	<b>19 sh</b>
Choose from the following:	
#ART425: Special Problems: Printmaking	
#ART425: Special Problems: Painting	
#ART425: Special Problems: Photography	
#ART425: Special Problems: Digital Photography	
#ART425: Special Problems: Life Studies	
ART425s may be repeated up to 9 sh	
#ART499: Independent Studies	
<b>Art Electives</b>	<b>6 sh</b>
<b>Junior Portfolio Review</b>	
Students must pass a portfolio review	
<b>Senior Exhibition (final semester)</b>	

<b>Total Required Courses</b>	<b>120 sh</b>
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**Specialization in 3-D Art**

Effective: Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (at least one lab)</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART103: Introduction to Art (3 sh)	
Choose Two additional Courses from PLA	
One must be Philosophy or Literature	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>9 sh</b>
(at least one with GAC-Historical Foundation)	
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>6 sh</b>
<b>Total University Requirements</b>	<b>48 sh</b>

<b>Major Area and Cognate Courses</b>	<b>72 sh</b>
VAPA119: First Year Student Seminar	1 sh

<b>Core (3-D) Requirements</b>	<b>37 sh</b>
ART105: Introduction to 3-D Design	3 sh
ART110: Color & 2-Dimensional Design	3 sh
ART112: Drawing 1	3 sh
#ART210: Materials & Techniques	3 sh
#ART217: Electronic (Digital) Art	3 sh
#ART312: Drawing 2	3 sh
#ART325: Printmaking	3 sh
#ART330: Painting	3 sh
#AR 335: Sculpture	3 sh
#ART350: Photo or ART318: Digital Photo	3 sh
#ART355: Life Studies	3 sh
#ART440: A.P.E.	3 sh
#ART490: Senior Capstone	1 sh

<b>#Art History</b>	<b>9 sh</b>
Select Three Courses from the following:	
ART301: Renaissance & Baroque Art	
ART304: Ancient and Medieval Art	
ART307: Asian Art	
ART401: Modern Art	
ART420: Art Since 1950	
ART430: American Art	

<b>Intermediate &amp; Advanced 3-D Studio</b>	<b>19 sh</b>
Choose from the following:	
#ART305: Pottery	
#ART315: Ceramics	
#ART425: Special Problems: Sculpture	
#ART425: Special Problems: Pottery	
#ART425: Special Problems: Ceramics	
ART425s may be repeated up to 9 sh	
#ART499: Independent Studies	

<b>Art Electives</b>	<b>6 sh</b>

<b>Junior Portfolio Review</b>	
Students must pass a portfolio review	

<b>Senior Exhibition (final semester)</b>	
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<b>Total Required Courses</b>	<b>120 sh</b>
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## Studio Art: Graphic and OnLine Design – Bachelor of Fine Arts

Effective: Fall 2016

<b>Intellectual Foundation</b>	<b>9 sh</b>
ENGL100: Composition (3 sh)	
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>3 sh</b>
<b>Mathematical and Computational Thinking</b>	<b>3 sh</b>
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry (at least one lab)</b>	<b>6 sh</b>
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>6 sh</b>
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>9 sh</b>
ART103: Introduction to Art (3 sh)	
Choose Two additional Courses from PLA	
One must be Philosophy or Literature	

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b> (at least one with GAC-Historical Foundation)	<b>9 sh</b>
<b>Wellness</b>	<b>3 sh</b>
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>6 sh</b>
<b>Total University Requirements</b>	<b>48 sh</b>

<b>Major Area and Cognate Courses</b>	<b>72 sh</b>
VAPA119: First Year Student Seminar	1 sh

<b>Core (Gold) Requirements</b>	<b>40 sh</b>
ART105: Introduction to 3-D Design	3 sh
ART110: Color & 2-Dimensional Design	3 sh
ART112: Drawing 1	3 sh
#ART200: Visual Thinking	3 sh
#ART211: Typography	3 sh
#ART217: Electronic (Digital) Art	3 sh
#ART227: History of Graphic Design	3 sh
#ART308 Online Design	3 sh
#ART312: Drawing II	3 sh
#ART342: Print Design	3 sh
#ART350: Photo <i>or</i> ART318: Digital Photo	3 sh
#ART411: Animation	3 sh
#ART440: A.P.E	3 sh
#ART490: Senior Capstone	1 sh

<b>#Art History</b>	<b>6 sh</b>
Select Two Courses from the following:	
ART301: Renaissance & Baroque Art	
ART304: Ancient and Medieval Art	
ART307: Asian Art	
ART401: Modern Art	
ART420: Art Since 1950	
ART430: American Art	

<b>Intermediate &amp; Advanced GOLD</b>	<b>19 sh</b>
Choose from the following:	
*#ART369: Internship	
#ART425: Special Problems: Electronic Art	
#ART425: Special Problems: Animation	
#ART425: Special Problems: Digital Photo	
*#ART425: Special Problems: Online Design	
*#ART425: Special Problems: Print Design	
*#ART425: Special Problems: Typography	
ART425s may be repeated up to 9 sh	
*May repeat Select Individual courses up to 9 sh	
#ART499: Independent Study	

<b>Art Electives</b>	<b>6 sh</b>
<b>Junior Portfolio Review</b>	
<b>Senior Exhibition (final semester)</b>	

<b>Total Required Courses</b>	<b>120 sh</b>
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## **REQUIREMENTS FOR MINORS**

<http://www.lockhaven.edu/academics/programs.html>

*Minors are not recorded on a student's academic record until the student's degree is earned.*

### **Anthropology - Minor**

#### **Purpose of Minor:**

To fulfill the need of students who wish to add an Anthropological perspective to their existing major and enhance their existing qualifications for employment in the field of human services.

#### **Requirements for a Minor in Anthropology:**

A minor in Anthropology is required to take 18 semester hours in Anthropology.

#### **Required Core Courses (6 sh)**

ANTH101 Introduction to Anthropology	3 sh
ANTH102 Cultural Anthropology	3 sh

#### **Electives (12 sh) Chosen From**

ANTH323 Cultures of North American Indians	3 sh
ANTH328 Seminar on Anthropology of Women	3 sh
ANTH330 Japanese Culture and Society	3 sh
ANTH422 Anthropology of Latin America	3 sh
ANTH424 Anthropology of the Middle East	3 sh
ANTH499 Independent Study	

**Total Semester Hours: 18 sh**

### **Applied Computer Science and Information Systems - Minor**

This minor provides students in other fields of study with a solid foundation in computer programming and information systems applications. The minor is designed to assist students in gaining employment and coping with the rapid changes in technology that are affecting and will continue to affect their personal and professional lives.

#### **Requirements (9 s.h.)**

COMP160	Programming I	3 s.h.
	(Prerequisite: MATH112 or appropriate Math Placement)	
COMP200	Fundamentals of Networking	3 s.h.
	(Prerequisite: COMP150)	
COMP255	Database Design	3 s.h.
	(Prerequisite: COMP160 or COMP250)	

#### **Minor Electives (Select 4 courses/12 s.h.)**

Select from the list below or select any COMP 300 or 400 level course

#### **Acceptable Minor Electives numbered below 300:**

COMP161	Programming II	3 s.h.
	(Prerequisite: COMP161)	
COMP202	Introduction to Systems Administration	3 s.h.
	(Prerequisite: COMP160)	
COMP205	Web-Based Application Development	3 s.h.
	(Prerequisite: COMP160)	

COMP225	Mobile App Development	3 s.h.
	(Prerequisite: COMP161)	
COMP230	Discrete Structures and Formal Languages	3 s.h.
	(Prerequisite: COMP160 and MATH107)	
COMP240	Game Programming	3 s.h.
	(Prerequisite: COMP161)	
COMP260	Information Technology Project Management	3 s.h.
	(Prerequisite: COMP160 or COMP255)	
<b>Total required semester hours:</b>		<b>21 s.h.</b>

Suggested Electives for Students interested in Software Application Development:  
 COMP161, COMP205, COMP225 or COMP240, COMP300 (Prerequisite: COMP161)

Suggested Electives for Students interested in Database Systems:  
 COMP205, COMP305 (Prerequisite: COMP255), COMP325 (Prerequisite: COMP255)

Suggested Electives for Students interested in Networking:  
 COMP304 (Prerequisite: COMP200), COMP407 (Prerequisite: COMP200), COMP412 (Prerequisite: COMP200),

### Aquatics - Minor

(18 Credits)

#### REQUIRED CORE COURSES (11 Credits)

SPRT106	Introduction to Sport Administration	3
HPED222	Lifeguarding Instructor (LGI)	1
HPED225	Swimming/Lifeguard Training (LGT)	1
HPED228	Aquacise	.5
HPED230	Synchronized Swimming	.5
HPED234	Water Safety Instructor (WSI)	1
HPED350	Advanced Techniques/Coaching Swimming and Diving	2
HPED351	Management of Aquatic Programs/Facilities	2

#### SUPPORT COURSES (Elect 7 Credits)

HLTH301	CPR and Emergency Care	3
HPED260	Practices and Principles of Conditioning	1
SPRT305	Psychology of Coaching	3
SPRT323	Sport and Society	3
PSYC201	Educational Psychology	3
PSYC235	Interpersonal skills	3
RECR202	Outdoor Recreation Activities	3

Approved by UCC: February 15, 2008

Revised 7/11

**Art History - Minor**

(21-24 s.h.)

List I:

One course (3 s.h.) of the following:

ART 102	Fundamentals of Art
ART 103	Introduction to Art

List II:

Five courses (15 s.h.) of the following:

ART227	History of Graphic Design
ART 301	Renaissance through Baroque Art
ART 304	Ancient through Medieval Art
ART 307	Asian Art
ART 401	History of Modern Art
ART 420	Art Since 1950
ART 430	American Art
PHIL 307	The Philosophy of Art
ART 499	Independent Study and Research in a selected topic of Art History. Available to students who have completed 12 s.h. of the requirements in List II.

List III:

Studio courses (3 to 6 s.h.):

Must take one, but no more than two, studio course(s) scheduled for six hours a week for 3 s.h. credits (3 to 6 s.h.)

Updated 7/06

## Biology- Minor

Students choosing to minor in Biology must complete Principles of Biology I (BIOL106) and Principles of Biology II (BIOL107). The student then chooses to take Genetics (BIOL202), Human Genetics (BIOL225), Botany (BIOL206), or Zoology (BIOL240). The student then completes an additional 12 semester hours of 200-400 level biology courses, at least six of which must be at the 300 or 400 level. Prerequisites must be met. It is highly recommended that a student wishing to pursue a minor in Biology consult with a Biology Faculty member for advice. The listing of courses in the Biological Sciences may be found at <https://www.lockhaven.edu/coursecatalog/biol.html>

Biology Minor Course Requirements	Semester	Semester Completed	Grade
<b>Required Courses (6 s.h.)</b> Students must earn a C average in BIOL106 and BIOL107 in order to take 200-400 level BIOL classes			
BIOL106: Principles of Biology I	3 s.h.		
BIOL107: Principles of Biology II	3 s.h.		
<b>Core (3 s.h.)</b> Students must take <b>one course</b> from the following:			
BIOL202: Genetics* BIOL225: Human Genetics* (*Prerequisite: CHEM120 and Corequisite: CHEM121) BIOL206: Botany BIOL240: Zoology	3 s.h.		
<b>Elective Biology Courses (12 s.h.)</b> Students must take 12 credits of 200-400 level courses in Biology. At least 6 s.h. must be 300 and/or 400 level. BIOL215 and BIOL328 do not count for this requirement. BIOL202 and BIOL225 may not both be counted towards the minor. A maximum of 3 credits of BIOL369 count in this category. A maximum of 3 credits of BIOL499 count in this category.			
BIOL ____	_ s.h.		
BIOL ____	_ s.h.		
BIOL ____	_ s.h.		
BIOL ____	_s.h.		
BIOL ____	_s.h.		

## Business - Minor

Baccalaureate degree students may wish to enhance their major program of study with knowledge of the basic principles of business. A Minor in Business will provide these students with a general overview of fundamental business concepts and terminology and an introduction to professional business skills. This knowledge may be applied to careers in industry, government or professional occupations, as well as to entrepreneurial endeavors.

*(NOTE: Due to prerequisites within the Business minor, students should plan at least three semesters in advance of graduation in order to complete the minor requirements. The Business minor is not available for Business Administration or Accounting majors.)*

<b>Requirements (15 semester hours total)</b>	
<ul style="list-style-type: none"> <li>• ACCT110: Financial Accounting</li> </ul>	3 sh
<ul style="list-style-type: none"> <li>• ECON101: Principles of Economics OR</li> <li>• ECON102 Principles of Macroeconomics OR</li> <li>• ECON103 Principles of Microeconomics (if a student takes both ECON102 and 103, one can count in the core and one as an elective.)</li> </ul>	3 sh
<ul style="list-style-type: none"> <li>• MANG315 Management: Concepts and Strategies</li> </ul>	3 sh
<ul style="list-style-type: none"> <li>• Another upper level Management course from among: MANG317, MANG320, MANG325, MANG425, MANG400, or MANG430</li> </ul>	3 sh
<ul style="list-style-type: none"> <li>• MRKT200</li> </ul>	3 sh
<b>Electives (6 semester hours total)</b>	
Select two courses from among the following -	6 sh
<ul style="list-style-type: none"> <li>• ACCT115 Management Accounting</li> </ul>	
<ul style="list-style-type: none"> <li>• ACCT210 Introduction to Federal Income Tax</li> </ul>	
<ul style="list-style-type: none"> <li>• COMP250 Advanced Microcomputer Applications</li> </ul>	
<ul style="list-style-type: none"> <li>• COMP255 Database Design</li> </ul>	
<ul style="list-style-type: none"> <li>• ENGL345 Business Writing</li> </ul>	
<ul style="list-style-type: none"> <li>• PHIL425 Ethics in Business and Industry</li> </ul>	
<ul style="list-style-type: none"> <li>• MANG302 Business Law I</li> </ul>	
<ul style="list-style-type: none"> <li>• PSYC235 Interpersonal and Leadership Skills</li> </ul>	
<ul style="list-style-type: none"> <li>• COMM320 Business Communications</li> </ul>	
<ul style="list-style-type: none"> <li>• OR... Any upper division (300 or 400 level) course designated MANG and/or MRKT, except MANG475 (which is not open to students pursuing a business minor)</li> </ul>	
<b>TOTAL</b>	<b>21 sh</b>

## Chemistry - Minor

Effective: Fall 2017

<b>Required Courses</b>	<b>20 Credits</b>
CHEM120: Principles of Chemistry I	4
CHEM121: Principles of Chemistry II	4
CHEM220: Organic Chemistry I	4
CHEM221: Organic Chemistry II	4
CHEM316: Quantitative Analysis	4
<b>Elective Courses</b>	<b>4 Credits</b>
Choose from 300 and 400-level chemistry courses*	
*Excluding CHEM328 and CHEM369	
<b>Total</b>	<b>24 Credits</b>

## Coaching - Minor

SPRT305	Psychology of Coaching	3
SPRT323	Sport and Society	3
SPRT106	Introduction to Sport Administration	3
HPED---	Advanced Techniques/Coaching (any)	3
HLTH301	CPR and Emergency Care	3
	<b>SUPPORT COURSES (Elect 6 Credits)</b>	
HLTH310	CPR and First Aid Instructor Training <b>OR</b>	2
HPED222	Lifeguard Instructor	1
HLTH016	Strength Training	1
HLTH336/320	Teaching Drug Education/Drug Education	3
HLTH341/470	Teaching Human Sexuality/Sex Education	3
HLTH202	Care and Prevention of Athletic Injuries	3
HPED---	Advanced Techniques/Coaching (any not taken in core)	1-
HPED302	Motor Learning Applied to Physical Education	2
PSYC201	Educational Psychology	3
PSYC235	Interpersonal Skills	3

Revised 7/2011

## Community Health - Minor

The **Community & Public Health Education Minor** in the Department of Health Science is designed to provide students with the skills and tools to identify community health needs; utilize problem solving abilities; and mobilize resources to develop, promote, implement, evaluate and facilitate strategies to improve health status. The **Community & Public Health Education Minor** will help students develop skills in identifying the behavioral and environmental causes of community health concerns; facilitating community organizing and outreach efforts; identifying and writing appropriate grant funding proposals; and understanding and responding to data driven statistics concerning current and future health status. The **Community & Public Health Education Minor** serves as a foundation for students seeking certification as a Certified Health Education Specialist (CHES). The minor, however, does not fulfill all requirements for the certification exam. Please see information regarding certification eligibility on the following page.

### Required Courses: 6 semester hours

HLTH140: Introduction to Public Health	3.0 sh
HLTH204: Foundations of School and Community Health	3.0 sh

### Elective Courses: Select at least 12 semester hours from this list

HLTH214: Planning and Assessment in School Health Education	2.0 sh
HLTH218: Public Health & the Environment	3.0 sh
HLTH235: Community Health Education Methods and Strategies	3.0 sh
HLTH240: Introduction to Epidemiology	3.0 sh
HLTH307: Cultural Aspects of Health	3.0 sh
HLTH330: School Health Programs	2.0 sh
HLTH350: Health Program Planning	3.0 sh
HLTH401: Current Issues in Health	3.0 sh
HLTH402: Evaluation in Health Education & Promotion Programs	3.0 sh
HLTH410: Applied Community & Public Health	3.0 sh
HLTH485: Field Experience in Health Science  <i>Must be in a Community Health setting and the site supervisor at your site must hold a degree in the field (or closely related) aligned with your academic aspirations (MCHES/CHES preferred).</i>	varies

**Total (minimum): 18 semester hours**

## **Certified Health Education Specialist (CHES) Certification Eligibility Information**

Individuals completing at least 25 semester hours of course work with specific preparation addressing the Area of Responsibility for Health Educators (see below) are eligible to sit for the Certified Health Education Specialist (CHES) exam.

Health educators are professionals who design, conduct and evaluate activities that help improve the health of all people. These activities can take place in a variety of settings that include schools, communities, health care facilities, businesses, universities and government agencies.

Health educators are employed under a range of job titles such as patient educators, health education teachers, health coaches, community organizers, public health educators, and health program managers. Certified Health Education Specialists (CHES) are those who have met the standards of competence established by the National Commission for Health Education Credentialing Inc. (NCHEC) and have successfully passed the CHES examination. The CHES designation after a health educator's name is one indication of professional competency and commitment to continued professional development.

Source: National Commission for Health Education Credentialing, Inc. <http://www.nchec.org>

### **Areas of Responsibility for Health Educators**

- Assess individual and community needs for health education
- Plan effective health education strategies, interventions, and programs
- Implement health education strategies, interventions, and programs
- Conduct evaluation and research related to health education
- Administer health education strategies, interventions, and programs
- Serve as a health education resource person
- Communicate and advocate for health and health education

For a complete listing of the Responsibilities and Competencies visit The National Commission for Health Education Credentialing, Inc. @ <http://www.nchec.org>

### **For those planning to take the CHES examination:**

In addition to the required coursework for the minor, we recommend the following courses be included in the 25 semester hours required to sit for the CHES exam:

- HLTH235 Community Health Education Methods and Strategies
- HLTH240 Introduction to Epidemiology
- HLTH307 Cultural Aspects of Health
- HLTH350 Health Program Planning
- HLTH402 Evaluation in Health Education & Promotion Programs
- HLTH410 Applied Community & Public Health



### Economics - Minor

Baccalaureate degree students may wish to enhance their major program of study with knowledge of basic and advanced courses in economics.

<b>Requirements (12 semester hours total)</b>	
ECON102: Principles of Macroeconomics	3 sh
ECON103: Principles of Microeconomics	3 sh
ECON310: Intermediate Macroeconomics	3 sh
ECON315: Intermediate Microeconomics	3 sh
<b>Electives (6 semester hours total)</b>	
Six additional semester hours in economics (ECON) courses at the 300 level or above, excluding internships	6 sh
<b>TOTAL</b>	<b>18 sh</b>

### English - Minor

Electives	Course Number/Name	s.h.	Date Completed	Grade
<b>Required: ENGL110, HONR112, or ENGL220</b>		<b>3</b>		
15 credits of either 200-, 300-, and 400-level literature courses or 200-, 300-, and 400-level writing courses. <b>***Note: These 18 credits can be all literature, all writing, or a mixture of the two.</b>		3		
		3		
		3		
		3		
		3		
	<b>Total Minor S.H.</b>	<b>18</b>		

### Entrepreneurship & Innovation Minor

CREDITS	COURSE	EXISTING OR NEW
3	Entrepreneurship	MANG317 (existing)
3	Entrepreneurial & Small Business Marketing	MRKT310 (existing)
3	Financial Accounting	ACCT110 (existing)
1	Funding an Entrepreneurial Venture	New
1	Introduction to Pricing	New
1	How to Hire, Fire, Train, & Handle Regulations	New
1	Innovation	New
1	Leadership & Ethics	New
1	How to Negotiate and Sell	New
3	Special Topics – Capstone in Entrepreneurship	MANG480 (existing)
<b>18</b>	<b>TOTAL CREDITS</b>	<b>6 NEW CREDITS TO BE ADDED</b>

### Environmental Studies – Minor Effective: Fall 2017

<b>1. Required Core Courses</b>	<b>6 sh</b>
ENVT101 Intro to Environmental Studies (3 sh)	
ENVT450 Environmental Studies Capstone (3 sh)	
<b>2. Sciences Content Area: One course (3 sh) from the following:</b>	<b>3 sh</b>
BIOL102 Environmental Science	
BIOL108 Field Natural History	
BIOL309 Ecology	
BIOL405 Field Ecology	
BIOL415 Environmental Policy and Regulations	
CHEM101 Chemistry in the Environment	
GEOS130 Principles of Geology	
GEOS135 Geology of National Parks	
GEOS140 Sustainability Science	
GEOS215 Environmental Geology	
GEOS360 Hydrogeology	
GEOS361 Aqueous Environmental Geochemistry	
GEOS420 Geology of Energy & Mineral Resources	
GEOS451 Coastal Environmental Oceanography	
BIOL/GEOS213 Introduction to GIS	
HONR115 Honors: Earth Resources & Environment	
PHYS101 Matter & Energy	
ENVT or science 328 seminars, topics courses, or independent studies when the topic is environmental (must be approved by the Director of Environmental Studies)	
<b>3. Humanities &amp; Social Sciences Content Area: One course (3 sh) from the following:</b>	<b>3 sh</b>
COMM355 Environmental Journalism	
CRJS220 Introduction to Conservation Law Enforcement	
CRJS309 Environmental Justice	
ECON301 Economics of the Environment	
GEOG305 Conservation of Natural Resources	
HIST324 Environmental History of Asia	
HLTH218 Public Health and the Environment	
MANG345 Strategic Sustainability for Entrepreneurs	
PHIL400 Ethics and the Environment	
RECR202 Outdoor Recreation Activities	
RECR320 Interpreting the Environment	
RECR355 Outdoor Recreation	
RECR356 Outdoor Education	
SOCI351 Urban-Rural Sociology	
ENVT, humanities, or social science 328 seminars, topics courses, or independent studies when the topic is environmental (must be approved by the Director of Environmental Studies)	

<b>4. Environmental Studies Electives:</b> Two courses (6 sh) from either #2 or #3 above.	<b>6 sh</b>
<b>Notes:</b>	
<ul style="list-style-type: none"> <li>At least 2 courses (6 sh) of the minor must be numbered 300-level or above.</li> <li>Some courses have prerequisites but the instructor might be willing to waive them for Environmental Studies minors.</li> </ul>	

**Total Credits: 18**

### **French - Minor**

A minor in French increases the marketability of students working towards any other degrees. It provides a global frame of reference and preparation for future work with international colleagues and in global corporations. It also greatly enhances students' applications to graduate schools.

- A minor in French consists of 18 credits of coursework
- FREN 201 (French 3) and FREN 202 (French 4) can be counted towards the minor.
- At least 12 credits must be beyond FREN 202 (French 4).
- All courses must be taught in the target language.
- There are no specific required courses.
- All courses can be taken at Lock Haven University or students may choose to take up to 15 credits abroad.
- At least 3 credits beyond FREN 202 (French 4) must be completed at Lock Haven University.

### **Geography - Minor**

#### **Required Courses (6 sh):**

GEOG100: Physical Geography (3sh)

GEOG101: World Regional Geography (3sh)

#### **Elective Courses:**

- It is recommended that students complete GEOG100 and GEOG101 prior to enrolling in elective courses.

#### **Select any four of the following courses (12 sh):**

GEOG212: Geography of the Developing World (3sh)

GEOG213: Introduction to Geographic Information Systems (3sh)

GEOG305: Conservation of Natural Resources (3sh)

GEOG315: Political Geography (3sh)

GEOG328: Social Science Seminar (3sh)

GEOG440: Economic Geography (3sh)

GEOG445: Geography of Latin America (3sh)

GEOG499: Independent Study (3sh)

<b>Geology - Minor</b>	
GEOS130 Principles of Geology I	3 SH
GEOS131 Principles of Geology II	3 SH
GEOS260 Geology Field Trip	1 SH
Remaining hours will have to be chosen from the following list, of which at least 6 SH will have to include GEOS 300+ level courses.	
GEOS120 Oceanography	3 SH
GEOS213 Introduction to GIS	3 SH
GEOS215 Environmental Geology	3 SH
GEOS230 Geomorphology	3 SH
GEOS301 Invertebrate Paleontology	3 SH
GEOS305 Mineralogy and Petrology	4 SH
GEOS315 Sedimentology	3 SH
GEOS360 Hydrogeology	4 SH
GEOS361 Aq. Environ. Geochem.	3 SH
GEOS415 Stratigraphy	3 SH
GEOS420 Geology of Energy & Min. Res.	4 SH
GEOS430 Structural Geology	4 SH
GEOS450 Tectonics & Geophysics	4 SH
2 additional SH of Geology Field Trip are <i>recommended from the following</i> :	
GEOS260 Geology Field Trip	1 SH

### **History - Minor**

**All students other than secondary education majors:**

- 18 semester hours ( 6 semester hours at 300-400 level)
- No more than six semester hours from the following:

HIST 150 – American History ( 3 s.h.)  
HIST 201 – History of the US I (3 s.h.)  
HIST202 -- History of the US II (3 s.h.)

**Secondary Education Majors**

- 6 semester hours 300-level in addition to major requirements

Liberal Arts Seminars (based on discipline of History) may count toward the minor based on a determination by the Department chairperson.

## International Studies - Minor

### Rationale.

The International Studies minor aims to encourage students to develop a more global perspective on the problems and issues facing themselves, the country, and the world. This can be accomplished through the examination of the history, culture, arts, literatures, languages, politics, philosophies, religions, geography, anthropology, economics, and/or social patterns of particular foreign countries or regions. While this aim can be furthered through course work here in Lock Haven, it can be better and more fully achieved through such course work taken in other countries as part of an approved Lock Haven University semester-long student exchange program.

### Requirements. 18 semester hours consisting of:

- A. Not more than 12 semester hours of approved Lock Haven University semester abroad exchange program courses dealing with the history, culture, arts, literature, languages, politics, philosophies, religions, geography, anthropology, economics, and/or social patterns of the country or region of the exchange program.
- B. Not fewer than 6 semester hours of advanced-level (300+) non-US courses in anthropology, art, music, literature, history, geography, political science, sociology or economics, OR courses beyond Level IV in a foreign language.

## Latin American Studies - Minor

Students may be granted a minor in Latin American Studies with 18 sh of work selected from the following courses.

Choose 3 sh from:

ANTH422 Anthropology in Latin America	3 sh
GEOG445 Geography of Latin America	3 sh

Choose 9 sh from:

POLI320 Latin American Politics	3 sh
HIST361 The Transatlantic Diaspora	3 sh
HIST367 Colonial Latin American History	3 sh
HIST377 Modern Latin American History	3 sh
HIST375 History of Mexico and Central America	3 sh

Choose 6 sh from:

SPAN204 Latin American Culture	3 sh
SPAN308 Intro to Spanish American Literature	3 sh
SPAN322 Spanish American Regional Novel and Short Story	3 sh
SPAN323 Spanish American Contemporary Novel and Short Story	3 sh

## Leadership - Minor

**Mission of the Minor:** The leadership minor seeks to prepare future leaders by acquainting them with the current theories and findings in leadership studies, assisting them in gaining a set of competencies which research suggests are held by effective leaders, and giving them experiential opportunities to apply their leadership knowledge and skills.

### Competencies:

- Knowledge of leadership theory and research
- Effective communication through writing and speaking
- Assertive persuasion and motivation skills using specific media
- Conflict management through integrative bargaining and mediation
- Self-leadership in setting and achieving personal goals
- Empathic listening skill
- Application of leadership knowledge and skills
- Project management and leadership skills
- Small group skills
- Coaching and mentoring skills
- Skill in ethical reasoning
- Team leadership and team building effectiveness
- Specific leadership position skills (job analysis, planning, etc.)

**Program of Study:** Students complete 6 courses totaling 18 credits, acquire at least six leadership competencies (as evidenced by their electronic portfolio artifacts and instructor rubric evaluations), and show evidence of the application of leadership skills in projects through service learning, campus leadership positions, or internship work. They present an electronic portfolio of their work as an assessment of their minor learning.

**Required Courses: Students must take PSYC235, then either PSYC313 or 328.**

- PSYC235 Interpersonal and Leadership Skills (**required**)
- PSYC313 Industrial and Organizational Psychology
- PSYC328 Issues in Contemporary Leadership

**Elective Skills Courses:** Students complete twelve credits from the courses listed below or courses approved by the Leadership Studies Committee in consultation with the Minor Adviser. Selected courses must span at least two different disciplines.

- POLI260 Introduction to Public Administration
- MILS404 Developing Adaptive Leaders
- COMM102 Fundamentals of Public Speaking
- COMM103 Small Group Communication
- COMM104 Interpersonal Communication
- COMM303 Argumentation and Debate
- COMM333 Public Relations
- COMM300 Business Communication
- COMM375 Persuasion
- COMM491 Propaganda and Public Opinion
- ENGL201 Advanced Composition (but not also 258)
- ENGL258 Business Writing (but not also 201)
- RECR203 Teambuilding and Challenge Courses
- PSYC470 Counseling Skills
- PHIL425 Ethics in Business and Industry (but not also 102)
- PHIL102 Ethics (but not also 425)
- PSYC313 Industrial-Organizational Psychology (if not taken as a core course)
- PSYC328 Issues in Contemporary Leadership (if not taken as a core course)
- Any leadership skill course approved by the Minor Steering Committee

### Electronic Portfolio Contents

1. Resume and personal mission statement.
2. At least six essays, case studies, client reports, internship reports, or other evidences of leadership skill attainment.
3. In addition to the service requirement for PSYC235, the student should submit evidence of leadership experience and achievements in one or more of the following areas where leadership can be studied and/or enacted: Service learning, student government, student life, sports, or internships.

**International Leadership Focus:** Students are encouraged to satisfy requirements in the minor by taking courses from LHUP's sister schools around the world. They may also accomplish an internship overseas with an international organization or while working on projects with organizations associated with our sister schools in various locations.

### Mathematics - Minor

**Purpose:** A student may wish to enhance his/her skills in the quantitative aspects of a chosen major. A minor in mathematics can be selected to assist the student in accomplishing that goal.

Requirements (12 semester hours total)		Grade Requirement
MATH141: Calculus 1	3 sh	C-
MATH142: Calculus 2	3sh	C-
MATH243: Calculus 3	3sh	C-
MATH211: Linear Methods OR MATH311: Elements of Linear Algebra	3sh	C-
<b>Electives (6 semester hours total)</b>	6sh	
Two 300 or 400 level MATH courses (other than MATH311)		
		C-
		C-
<b>TOTAL</b>	<b>18 sh</b>	

### Middle School Mathematics - Minor

Required Courses (9 semester hours total)		Grade Requirement
MATH102: Number Systems	3 sh	C-
MATH115: Statistics and Geometry	3 sh	C-
MATH107: Basic Statistics I	3 sh	C-
<b>Options (9 semester hours from one of the options)</b>		
<u>Option 1</u>		
MATH112: Intermediate Algebra	3 sh	C-
MATH113: Precalculus	3 sh	C-
MATH141: Calculus 1	3 sh	C-
OR		
<u>Option 2</u>		
MATH113: Precalculus	3 sh	C-
MATH141: Calculus 1	3 sh	C-
MATH142: Calculus 2 OR any 200 or 300 level MATH course	3 sh	C-
OR		
<u>Option 3</u>		
MATH141: Calculus 1	3 sh	C-
MATH142: Calculus 2 OR any 200 or 300 level MATH course	3 sh	C-
Another 200 or 300 level MATH course	3 sh	
		C-
<b>TOTAL</b>	<b>18 sh</b>	

### Music - Minor

Students may complete an 18 sh minor in music. Interested persons should consult the chairperson of the Music Department for further information.

### Nanotechnology - Minor

	Course Number	s.h.	Date Completed	Grade
<b>1. Required Core Nanotechnology Courses</b> (6 sh)				
Introduction to Nanoscale Science	NANO105	3		
Tools and Techniques in Nanotechnology	NANO210	3		
<b>2. Advanced Elective Courses</b> (12 sh)				
NOTE: Choose courses from those listed below. A minimum of 2 courses must have a NANO prefix. The selection of elective courses is frequently guided by the general areas of NANO research conducted at LHU (Materials Science/Engineering or Nanotoxicology).				
*Generation & Modification of Nanostructures	NANO 304	3		
*Characterization of Nanostructures	NANO 306	3		
Advanced Applied Nanotechnology Laboratory	NANO458	3		
Independent Study in Nanotechnology	NANO 499	1-3		
Cellular and Molecular Biology	BIOL 330	4		
Microbiology	BIOL 340	4		
Environmental Toxicology	BIOL425	3		
Inorganic Chemistry	CHEM301	3		
Environmental Geology	GEOS215	3		
Mineralogy and Petrology	GEOS305	3		
Heat	PHYS 250	3		
Electronics	PHYS 290	4		
Optics	PHYS 325	4		
	<b>TOTAL</b>	<b>18</b>		

\* NANO 105, NANO 210, PHYS 170 and PHYS 171 are prerequisites for 300-level NANO courses. Students may also take 300-level NANO courses if they have successfully completed PHYS 130, PHYS 131, and MATH 141.



### Philosophy - Minor

A minor in philosophy consists of six courses (18 semester hours) distributed as follows. Required Courses (12.0 sh)

PHIL102 Ethics

PHIL201 Classical Philosophy

PHIL110 Critical Thinking OR PHIL308 Logic

PHIL328 Humanities Seminar

Electives (6.0 sh)

Students must take at least one 300 or 400 level course as one elective. The other elective can be satisfied by any philosophy course, including PHIL101 Problems in Philosophy.

### Physics - Minor

Required Courses (12.0 sh)

PHYS170 Intermediate General Physics 4 sh

PHYS171 Intermediate General Physics I 4 sh

PHYS315 Modern Physics 4 sh

An additional 9 sh in physics (PHYS) or applied physics (PHAP) must be taken, with 6 of the 9 sh being 300+ level courses. Courses chosen from list below:

PHYS250 Heat 3 sh

PHYS290 Electronics 4 sh

PHYS325 Optics 4 sh

PHYS330 Mechanics I 3 sh

PHYS331 Mechanics II 3 sh

PHYS350 Quantum Mechanics 3 sh

PHYS370 Electricity and Magnetism I 3 sh

PHYS371 Electrodynamics 3 sh

PHAP300 Thin Film Science and Technology 3 sh

Total 21 sh

### Political Science - Minor

**Required Courses (6 semester hours total):**

POLI105 American National Government and 3 sh \_\_\_\_\_

POLI101 Political Science **OR** 3 sh \_\_\_\_\_

POLI107 World Politics 3 sh \_\_\_\_\_

**Choose one (3 sh total):**

POLI210 State and Local Government 3 sh \_\_\_\_\_

POLI250 United States Foreign Policy 3 sh \_\_\_\_\_

POLI260 Introduction to Public Administration 3 sh \_\_\_\_\_

**Choose three 300 or 400 level Political Science courses (9 sh total):**

**Total**

**18 semester hours**

## PreK-4/Early Childhood Education - Minor

This minor is intended to provide students with a second area of expertise, but does not lead to early childhood certification.

<b>Lower Division Course Work</b>	<b>9 sh</b>
ECED100: Introduction to Early Childhood Education	3 sh
ECED200: Observing and Assessing	3 sh
ECED212: Language Development	3 sh
<b>Upper Division Course Work</b>	<b>6 sh</b>
ECED326: Guidance and Classroom Management	3 sh
ECED332: Developing Creative Expression	3 sh
<b>Elective Course Work (Select 1)</b>	<b>3 sh</b>
ECED150: Diversity in ECED	3 sh
ECED220: Emerging Mathematics and Science	3 sh
ECED225: Beginning Literacy	3 sh
ECED230: Professional Communication & Family	3 sh
ECED325: Assessment and Evaluation	3 sh

## Psychology – Minor

Psychology is a broad field and complements several majors, including health science, criminal justice, and social work. It is also a very practical field and highly valued by potential employers because it provides students (potential employees) with the ability to find needed information (research skills), the ability to think critically about different options (critical thinking skills), and the ability to consider differing perspectives (critical thinking and diversity skills).

The psychology minor requires 18 credit hours – or 6 courses – to complete.

### Required Courses (6 credit hours)

1. PSYC100 – Introduction to Psychological Science
2. PSYC202 – Research Methods in Psychology (Prerequisite of PSYC100)

### Additional Courses (12 credit hours)

1. Six credit hours (usually 2 courses) at the 300 or 400 level. Some examples of classes that meet this are:
  - a. PSYC307 - Abnormal Psychology (prereq. of 6 hours taken in PSYC, including PSYC100)
  - b. PSYC308 - Psychology of Personality (prereq. of 6 hours taken in PSYC, including PSYC100)
  - c. PSYC315 – Health Psychology (prereq. of PSYC100 and PSYC215, PSYC410, or HLTH251)
  - d. PSYC322 – Drugs and Human Behavior (prereq. of PSYC100 and BIOL101 or HLTH251)
  - e. PSYC328 – Social Science Seminar (prereq. of 60 semester hours completed)
  - f. PSYC425 – Psychology of Women
2. Six credit hours (usually 2 courses) at any level of psychology. Some examples of classes that meet this are:
  - a. PSYC102 – Child Development
  - b. PSYC103 – Adolescent Development
  - c. PSYC201 – Educational Psychology (prereq. of PSYC102 or PSYC103 d. PSYC212 – Forensic Psychology (prereq. of PSYC100)
  - e. PSYC235 – Interpersonal and Leadership Skills (prereq. of PSYC100)

To declare a minor complete the “Change of Major and Declare Academic Minor” form with the Psychology Department Chairperson. The form is on MyHaven and can be found by clicking the Registrar tab, then choosing Forms from the left side bar.

During the semester that you are completing the requirements for the minor (or when you apply for graduation), you must also complete the “Verification of Minor” form with the Psychology Department Chairperson. The form is on MyHaven and can be found by clicking the Registrar tab, then choosing Forms from the left side bar.

## Recreation Management - Minor

### Purpose

A minor in Recreation Management is intended to provide students with a foundation in the discipline and to acquire skills for providing recreation services. The required 18 credits of coursework will provide basic knowledge in an additional field of study.

### Requirements

Twelve credits from the core courses listed below and six credits from 300 or 400 level courses in fitness management, outdoor management, or leisure/commercial are required to obtain a minor in Recreation Management.

### Core Courses (12 credits)

RECR105 Leisure, Wellness and Personal Lifestyle	3.0 sh
RECR110 Introduction to Recreation	3.0 sh
RECR244 Recreation Leadership and Supervision	3.0 sh
RECR275 Recreation Services for People with Disabilities	3.0 sh

### Track-Specific Courses (6 credits)

The university stipulates that a minor include at least six semester hours of upper division (300 level or higher) courses. In accordance with this policy, students who minor in Recreation Management have the flexibility to select six credits of coursework at the 300 or 400 levels in the fitness, outdoor, therapeutic, or leisure/commercial tracks. Selection of these courses is based on the goals and objectives of the individual student. Advisement from faculty in the recreation degree program is recommended.

### Additional Information

Students seeking more information concerning this minor should contact the chairperson of the Recreation Management Department.

## Sociology - Minor

### Required Core Courses (9 sh total):

SOCI101 Introduction to Sociology	3 sh
SOCI352 Sociological Theory	3 sh
SOCI404 Sociological Research	3 sh

### Electives (9 sh total)

SOCI203 Social Problems	3 sh
SOCI205 Racial and Ethnic Minority Relations	3 sh
SOCI206 Marriage and Family	3 sh
SOCI301 Juvenile Delinquency	3 sh
SOCI302 Criminology	3 sh
SOCI328 Social Science Seminar	3 sh
SOCI330 Japanese Culture and Society	3 sh
SOCI351 Urban-Rural Patterns	3 sh
SOCI353 Social Institutions	3 sh
SOCI354 Social Change	3 sh
SOCI360 Death and Dying	3 sh
SOCI402 Industrial Sociology	3 sh
SOCI403 Social Gerontology	3 sh
SOCI420 Corrections	3 sh
<u>3 sh</u> Total	18 sh

NOTE: Individualized Instructions and Independent Studies are not permitted in the minor.

## Spanish - Minor

A minor in Spanish increases the marketability of students working towards any other degrees. It provides a global frame of reference and preparation for future work with international colleagues and in global corporations. It also greatly enhances students' applications to any graduate school.

- A minor in Spanish consists of 18 credits of coursework.
- SPAN 201 and SPAN 202 can be counted towards the minor.
- At least 12 credits must be beyond SPAN 202 (Spanish 4).
- All courses must be taught in the target language.
- There are no specific required courses.
- All courses can be taken at Lock Haven University or students may choose to take up to 15 credits abroad.
- At least 3 credits beyond SPAN 202 must be completed at Lock Haven University.

## Special Education – Minor

The Special Education Minor is open to any student at Lock Haven University. The minor is intended to provide students with a second area of expertise, but does not lead to Special Education Certification. Depending on the student's academic major, this minor may require an extra semester to complete.

### **Required Coursework**

**(18 hours)**

### **Lower Division Coursework**

**(9 hours)**

- ☐ SPEC 105 Foundations of Special Education OR  
SPEC 204 Cognitive Development for Diverse Learners
- ☐ SPEC 215 High Incidence Disabilities Support
- ☐ SPEC 212 Low Incidence Disabilities Support

### **Upper Division Coursework**

**(9 hours)**

- ☐ SPEC 338 Positive Behavior Supports
- ☐ SPEC 345 Literacy Skills for Students with Disabilities
- ☐ SPEC 309 Effective Instructional Strategies for Students  
With Disabilities in Inclusive Settings

\* Students whose major is outside of teacher education may take a broader range of special education courses to complete the minor. Required coursework includes: SPEC 105 or 204, SPEC 212 and SPEC215 and three 300 level courses (SPEC 300, 309, 310, 325, 330, 338, or 345).

## Sport and Exercise Psychology - Minor

### Required Core Courses (6 credits)

SPRT208: Introduction to Sport and Exercise Psychology

SPRT318: Advanced Theory and Application of Sport and Exercise Psychology

### Support Courses (12 credits)

SPRT305: Psychology of Coaching SPRT323: Sport and Society\*

ATTR332: Psychological Aspects of Injury and Illness\*

HLTH305: Introduction to Biomechanics\*

HLTH353: Physiology of Exercise\*

PSYC202: Research Methods in Psychology (3)\*\*

PSYC235: Interpersonal and Leadership Skills

PSYC250: Social Psychology\*

PSYC308: Psychology of Personality\*

PSYC313: Industrial and Organizational Psychology\*

\*These courses have pre-requisites.

\*\* Strongly recommended for students who do not complete a research methods class as part of their major requirements

- ☐ Students may petition the minor coordinator for approval of a maximum of 3 credits in lieu of those listed above. The petition must be approved prior to completion of the 3 credits.

## Theatre - Minor

Offered as a partnership through another State System University. *Minors are not recorded on a student's academic record until the student's degree is earned.*

### Required course to be taken at Lock Haven University (3.0 sh)

THEA110 Theatre: An Orientation

### Additional Courses (15.0 sh)

Students interested in a theatre minor should contact the Theatre advisor about opportunities to complete the remaining 15.0 sh of required coursework through a partner State System University.

## Women and Gender Studies - Minor

### Pathway 1 :Women's Studies

Required:

WMST101 Introduction to Women's Studies

WMST499 Independent Study Capstone Project

Electives: (Select 4 courses – 12 SH)

ANTH328 Anthropology of Women

ENGL328 Humanities Seminar\*

ENGL400 Adv Topics in British Lit\*

ENGL402 Adv Topics in American Lit\*

ENGL404 Adv Topics in World Lit\*

ENGL425 Major American Writers\*

ENGL435 Major British Writers\*

HIST318 US Women's History

HIST328 Social Science Seminar

HLTH430 Women's Health Issues

MCOM210 Gender and the Mass Media

MCOM330 Cultural Studies in Mass Communication  
PHIL328 Philosophy of Feminism  
PSYC425 Psychology of Women  
SOC1328 Changing Roles of Male and Female  
SOCW413 Women in Crisis  
THEA328 Humanities Seminar: Gender and Performance

Pathway 2: Gender Studies

Required:

WMST110 Introduction to LGBTQ Studies  
WMST499 Independent Study Capstone Project

Electives: (Select 4 courses – 12 SH)

ENGL328 Humanities Seminar\*  
ENGL400 Adv Topics in British Lit\*  
ENGL402 Adv Topics in American Lit\*  
ENGL404 Adv Topics in World Lit\*  
ENGL425 Major American Writers\*  
ENGL435 Major British Writers\*  
HIST328 Social Science Seminar  
HLTH430 Women's Health Issues  
MCOM210 Gender and the Mass Media  
MCOM330 Cultural Studies in Mass Communication  
SOC1328 Changing Roles of Male and Female  
THEA328 Humanities Seminar: Gender and Performance

Pathway 3: Women and Gender Studies

Required:

WMST101 Introduction to Women's Studies  
WMST110 Introduction to LGBTQ Studies  
WMST499 Independent Study Capstone Project

Electives: (Select 3 courses – 9 SH)

ANTH328 Anthropology of Women  
ENGL328 Humanities Seminar\*  
ENGL400 Adv Topics in British Lit\*  
ENGL402 Adv Topics in American Lit\*  
ENGL404 Adv Topics in World Lit\*  
ENGL425 Major American Writers\*  
ENGL435 Major British Writers\*  
HIST318 US Women's History  
HIST328 Social Science Seminar  
HLTH430 Women's Health Issues  
MCOM210 Gender and the Mass Media  
MCOM330 Cultural Studies in Mass Communication  
PHIL328 Philosophy of Feminism

PSYC425 Psychology of Women

SOCI328 Changing Roles of Male and Female

SOCW413 Women in Crisis

THEA328 Humanities Seminar: Gender and Performance

THEA328 Humanities Seminar: Women and Theatre

\*Topics of these courses change; so check with coordinator for eligibility.

Other courses may count or may be augmented to count as Women and Gender Studies electives; contact coordinator for details.

## ALTERNATE PATHWAYS TO CERTIFICATION

Today, it is increasingly common to obtain a teacher credential through an alternate pathway. The post-baccalaureate program is for individuals who already hold a bachelor's degree and are seeking PA PreK-4 certification. The courses can be offered fully online, blended, or face-to-face. Student teaching will be offered as traditional or internship per PDE requirements. The student teacher internship may be offered to students who meet a specific set of criteria established by the Pennsylvania Department of Education.

### PreK-4 Certification Post-Baccalaureate/Non-Degree

Recommended course of study\*

<b>Major Area and Cognate Courses</b>		
<b>Special Education</b>		<b>9 sh</b>
SPEC204 Cognitive Dev of Diverse Learners		
SPEC309 Effective Instructional Strategies		
SPEC345 Literary Instruction for Students w/Disabilities		
<b>PreK-Grade 4/ECED Coursework</b>		<b>21 sh</b>
PSYC102 Child Development OR ECED605 <b>Diversity in Development from Infancy through 4th Grade</b>		
ECED100 Intro to Early Childhood Education		
ECED212 Language Development OR SPEC 202 Cultural Diversity		
ECED200 Observing and Assessing OR ECED325 Assessment and Evaluation OR <b>ECED620 Assessment, Evaluation, and Observation</b>		
ECED225 Beginning Literacy OR ECED204 Primary Reading		
ECED230 Prof. Comm. and Family Collab. Or <b>ECED615 Family, Community and Educational Collaboration</b>		
ECED326 Guidance and Classroom Management OR <b>EDTL609 Classroom Management and Control OR ALTE610 Classroom Environment</b>		
<b>Student Teaching</b>		<b>12sh</b>
ECED493 Student Teaching and Practicum		
ECED494 Student Teaching and Practicum		
OR		
ECED4xx Internship Student Teaching		

\*Additional Coursework may be required.

A faculty advisor will determine the deficiencies that must be met prior to recommendation for certification. Additionally, some courses may be substituted or waived based on a review of prior coursework and experience.

To be recommended for certification by Lock Haven University:

- Candidates must have 2 college level math courses, 1 composition, and 1 English literature course.
- Candidates must maintain a 3.0 grade point average. Those coming into the program without an undergraduate GPA of 3.0 or above must establish the GPA to be an eligible candidate<sup>1</sup>.
- Candidates must complete 190 hours of classroom observation and teaching – 150 hours are embedded in student teaching. Those working in the field may be eligible to count the hours towards the requirement.

Candidates must be deemed to be of High Moral Character and demonstrate satisfactory understanding of the PreK-grade 4 competencies as established by PDE.



## **COURSE DESCRIPTIONS**

Current course descriptions can be found online at <http://www.lockhaven.edu/coursecatalog/>.

### **ACCT110 Financial Accounting (Min SH: 3, Max SH: 3)**

An introduction to the process of financial reporting for business organizations including the preparation of financial statements. Primary emphasis is placed on accounting concepts with an exposure to procedural techniques to give students a basic knowledge of the accounting process. The course is designed for users of accounting information.

Prerequisites: None

Corequisites: None

### **ACCT115 Managerial Accounting (Min SH: 3, Max SH: 3)**

Focuses on the use of accounting data within a business for planning, controlling, and making decisions for the optimal utilization of the firm's financial resources.

Prerequisites: ( ACCT110 )

Corequisites: None

### **ACCT210 Fundamentals of Income Taxation (Min SH: 3, Max SH: 3)**

Introduces students to the federal income tax system, based on the Internal Revenue Code, its regulations and interpretations. Emphasis is placed, primarily, on the concepts of tax planning and compliance for business decision-making, and secondarily, for use in individual financial planning.

Prerequisites: ( ACCT110 )

Corequisites: None

### **ACCT215 Accounting Information Systems (Min SH: 3, Max SH: 3)**

A study of modern concepts of accounting information systems including accounting systems design for organizations of differing character and complexity. Manual and automated accounting systems are reviewed including the transition from manual to automated accounting systems. Designing internal controls and auditing of computerized systems are reviewed.

Prerequisites: ( ACCT115 AND COMP150 )

Corequisites: None

### **ACCT300 Cost Accounting (Min SH: 3, Max SH: 3)**

An in-depth study of the basic principles and procedures of cost accounting that are most often used by typical manufacturing and service organizations. The cost accounting cycle is studied in a step-by-step approach to the flow of costs. Emphasis is on estimating, planning and controlling costs.

Prerequisites: ( ACCT115 )

Corequisites: None

### **ACCT333 Accounting for Governmental and Nonprofit Entities (Min SH: 3, Max SH: 3)**

An introduction to the principles and standards used in not-for-profit accounting, as applied to governmental entities, health care organizations, colleges and universities, and all other non-profit organizations.

Prerequisites: ( ACCT110 )

Corequisites: None

ACCT335 Intermediate Accounting 1 (Min SH: 3, Max SH: 3)

An introduction to the theoretical foundation of generally accepted accounting principles for financial reporting and how those principles apply to a firm's assets, liabilities, and owners' equity accounts. Asset accounts are examined in depth.

Prerequisites: ( ACCT110 )

Corequisites: None

ACCT410 Advanced Topics in Financial Accounting (Min SH: 3, Max SH: 3)

Covers topics emphasizing the relationship between specialized accounting functions and their impact on the financial statements of business organizations.

Prerequisites: ( ACCT110 )

Corequisites: None

ACCT420 Auditing (Min SH: 3, Max SH: 3)

Introduces the standards and procedures underlying auditing and emphasizes current auditing practices within the public accounting profession and operational auditing practices. The course stresses risk analysis and includes statistical sampling techniques.

Prerequisites: ( ACCT340 )

Corequisites: None

ACCT435 International Accounting (Min SH: 3, Max SH: 3)

Focuses on how and why accounting principles differ among countries, and on financial and accounting issues that U.S.-based, international businesses face. The course includes international auditing, international taxation, currency transaction and translation issues, and preparation of consolidated financial statements.

Prerequisites: ( ACCT335 )

Corequisites: None

ACCT460 Advanced Federal Taxation (Min SH: 3, Max SH: 3)

Introduces students to the concepts of corporate, partnership, estate, and trust taxation. Emphasis is placed on tax theory and application, as well as on projects in tax research. In addition, students will apply tax theory in the preparation of Forms 1120, 1120S, 1065, 1041, and 706.

Prerequisites: ( ACCT210 )

Corequisites: None

ACCT480 Topics in Accounting (Min SH: 3, Max SH: 3)

An in-depth exploration of aspects of accounting and topics of current interest. Specific topics for a section will be determined prior to the semester in which the course is offered.

Prerequisites: ( ACCT110 )

Corequisites: None

ADAC100 Learning Strategies for College (Min SH: 1, Max SH: 1)

Designed to develop the learning styles, attitudes, and behavior of students with special academic needs. The students will be instructed in listening skills, note taking, textbook reading, preparation for tests, use of time, solving problems, organizing study, critical and creative thinking for studying, and methods for converting short-term memory to long-term memory.

Prerequisites: None

Corequisites: None

ADAC101 Introduction to Academic and Personal Development (Min SH: 3, Max SH: 3)

An introduction to the evolution and purposes of American higher education and the value of general education requirements. Explores the psychosocial development of college students with a focus on self-awareness along multiple domains including academic skills, interpersonal relationships, career interests, and technological and communication skills. Acquaints students with university resources, diversity issues, and the connection between student learning styles and college success.

Prerequisites: None

Corequisites: None

ADAC119 First Year Student Seminar (Min SH: 1, Max SH: 1)

An introduction to the culture and mission of the university and its programs of study. The course will explore the purpose of one's college education and provide the student an opportunity to engage with an academic field of interest. The student will be introduced to basic college learning and study skills. Through class discussion, the student will engage in active learning. Common co-curricular activities will facilitate the first year student's connection to the university.

Prerequisites: None

Corequisites: None

ADAC125 Introduction to Career/Life Planning (Min SH: 2, Max SH: 2)

Through an exploration of career development, thorough self-assessment, development of sound decision-making skills, and exploration of academic programs of study and the world of work, this course facilitates the ultimate declaration of an appropriate major and the first steps in navigating the career/life planning process. Restricted to second and subsequent semester students.

Prerequisites: None

Corequisites: None

ADAC200 Foundations of Group Peer Tutoring (Min SH: 1, Max SH: 1)

An overview of the mission, philosophy, and operation of Lock Haven University Tutorial Services. Students will be acquainted with the critical issues encountered in tutoring including the following: legal, multiculturalism, disabilities, pedagogy, learning strategies, and group dynamics.

Prerequisites: None

Corequisites: None

ALTE300 Helping Skills in Alternative Education (Min SH: 3, Max SH: 3)

This course is an introduction to working with at-risk youth in alternative education settings. The course is designed to prepare future educators and others for work in alternative education settings by introducing the scope and purpose of alternative education, the characteristics and dynamics of at-risk conditions for youth, and by providing opportunities to develop basic

helping skills. Students will learn basic helping skills necessary for effective intervention with at-risk students including helping communication, referral/case-management, conflict management, interviewing and assessment. Approximately one-half of the course is designed to examine at-risk youth issues and the programmatic considerations related to those issues and one-half of the course is devoted to examining alternative education settings and the development of helping skills appropriate to working in those settings. Restricted to Elementary and Special Education majors with a minimum of 60 credit hours; others by permission.

Prerequisites: None

Corequisites: None

#### ALTE480 Alternative Education Practicum (Min SH: 3, Max SH: 3)

The capstone course for the Alternative Education minor. It includes four weeks of classroom-only experience and eleven weeks in a placement at an alternative education program site. The four weeks of classroom experience emphasize alternative education theory and skills development. The eleven-week placement allows students to participate in a supervised participation experience, emphasizing practical application of alternative education classroom interventions.

Prerequisites: ( ALTE300 )

Corequisites: None

#### ANTH101 Intro Anthropology (Min SH: 3, Max SH: 3)

An overview of what anthropology has discovered about our biological and cultural evolution in physical anthropology and archeology. Students will also examine contemporary societies from a cross cultural perspective.

Prerequisites: None

Corequisites: None

#### ANTH102 Cultural Anthropology (Min SH: 3, Max SH: 3)

Explores and explains the diversity of human behavior in such areas as social organization, politics, economics and religion. The class also seeks to understand and explain this behavior. A goal of this course is to have students view new patterns of living using the principle of cultural relativism.

Prerequisites: None

Corequisites: None

ANTH328 Seminar-Social Science (Min SH: 3, Max SH: 3)

ANTH328-Anthropology of Women: Investigates the status of women in hunting and gathering, horticultural, agricultural, and industrial societies. Through this investigation we will discover the factors leading to sexual equality and inequality and make assessments about the status of women in the developing world.

Prerequisites: None

Corequisites: None

ANTH330 Japanese Culture and Society (Min SH: 3, Max SH: 3)

Sociological and anthropological perspectives are used to understand Japanese culture and society. The course will highlight various social institutions and cultural elements of the Japanese society, namely education, religion, popular culture, group dynamics, marriage and the family, and economy. Through the multidisciplinary approach, the course will investigate both historical as well as contemporary issues concerning Japan. See also SOCI330.

Prerequisites: ( SOCI101 ) OR ( ANTH102 ) OR ( ANTH101 )

Corequisites: None

ANTH422 Anthropology Latin America (Min SH: 3, Max SH: 3)

Studies indigenous cultures of Central and South America as constructed from archaeological and ethnographic. Ethnographic information on contemporary Indians, peasants, and urban residents and analysis of current events from an anthropological point of view will also be presented.

Prerequisites: None

Corequisites: None

ANTH424 Anthropology of the Middle East (Min SH: 3, Max SH: 3)

An exploration of the political, economic, religious and kinship systems of Middle Eastern peasants, pastoralists and townsmen. Contemporary issues such as the rise of Islamic Fundamentalism, Arab-Israeli relations, oil wealth, labor migration and development will also be examined from an anthropological perspective.

Prerequisites: ( ANTH101 ) OR ( ANTH102 ) OR ( SOCI101 )

Corequisites: None

ART100 Understanding Art (Min SH: 3, Max SH: 3)

Introduces students to the world of art both past and present. Essential ideas of art are examined in concrete form using examples from diverse times and cultures. The course stresses understanding that art as a universal human creative impulse by studying its forms in a variety of aesthetic and cultural contexts.

Prerequisites: None

Corequisites: None

ART103 Introduction to Art (Min SH: 3, Max SH: 3)

A survey of art history that serves as an introduction to aesthetics, perception, art criticism, and the art heritage of humankind. It is designed to help students develop appreciation and understanding of the visual arts.

Prerequisites: None

Corequisites: None

ART105 Introduction Three-Dimensional Art (Min SH: 3, Max SH: 3)

An introduction to the basic understanding of the elements of composition and principles of design as applied to the three-dimensional arts. The student will acquire this knowledge by executing a series of projects intended to stimulate visual problem solving. The course will examine the practical application of basic concepts of design in the plastic arts through the investigation of those masterworks which represent and inform core aesthetic concepts in the three three-dimensional arts.

Prerequisites: None

Corequisites: None

ART112 Drawing 1 (Min SH: 3, Max SH: 3)

A beginning exploration of the various approaches to drawing as a means of aesthetic expression. Introduces aspects of practice, materials and concepts. Covers major genre types including perspective, still life, landscape and the human figure.

Prerequisites: None

Corequisites: None

ART200 Visual Thinking (Min SH: 3, Max SH: 3)

The study of idea development as it applies to the graphic communicator. A variety of idea-generating techniques are explored with a strong emphasis upon quick visual exercises to stimulate innovative thinking and collaborative visual problem solving.

Prerequisites: None

Corequisites: None

ART208 History of Photography (Min SH: 3, Max SH: 3)

Investigates the development of photography from its inception (c. 1839) to the present. Students examine the primary photographers, techniques, and aesthetic issues addressed over the last 170+ years. These aspects of photography will be viewed within their historical and cultural context.

Prerequisites: None

Corequisites: None

ART210 Materials and Techniques (Min SH: 3, Max SH: 3)

An intensive study and experimentation with different media. Stress is placed on creative expression and the use of the principles of design. Students will be introduced to computer graphics.

Prerequisites: None

Corequisites: None

ART217 Introduction to Digital Art (Min SH: 3, Max SH: 3)

An introduction to digital means of producing artworks utilizing computer based technology. Students create digitally generated images and are required to solve specific design problems.

Prerequisites: None

Corequisites: None

ART221 Typography (Min SH: 3, Max SH: 3)

An introduction to typography: the art of designing with type, including the planning of typeface, size, composition, and page layout. This course explores the fundamental principles of typography and its integral role in graphic design.

Prerequisites: ( ART110 )

Corequisites: None

ART227 History of Graphic Design (Min SH: 3, Max SH: 3)

Survey of the history of design concentrating on visual communication and typography from prehistory to the digital revolution.

Prerequisites: ( ART103 ) OR ( ART105 ) OR ( ART110 )

Corequisites: None

ART304 Ancient and Medieval Art (Min SH: 3, Max SH: 3)

A detailed study of the history of art from Paleolithic times through the Gothic period. Art objects will be studied as reflections of changing cultural priorities that coincide with historic developments in Western Civilization.

Prerequisites: ( ART103 )

Corequisites: None

ART305 Pottery (Min SH: 3, Max SH: 3)

An introduction to the methods of forming pottery from primitive to contemporary techniques. Explores various types of decorating, glazing, and firing.

Prerequisites: None

Corequisites: None

ART307 Asian Art (Min SH: 3, Max SH: 3)

A survey of the visual arts in Asia (India, China and Japan) from prehistoric through the eighteenth century (pre-modern period). Emphasis will be on tracing major artistic developments and achievements in each region.

Prerequisites: None

Corequisites: None

ART308 On-line Interactive Design (Min SH: 3, Max SH: 3)

A studio course that explores concepts and structures of on-line communication employing interactive digital media. Students are taught screen-based interface design and are instructed how to design effectively for the World Wide Web. A variety of World Wide Web authoring tools and procedures are introduced.

Prerequisites: ( ART217 ) OR ( ART221 )

Corequisites: None

ART312 Drawing 2 (Min SH: 3, Max SH: 3)

Designed to expand the students conception of drawing subjects, techniques, and materials. An appreciation and study of drawings by major artists is also included.

Prerequisites: ( ART212 ) OR ( ART112 )  
Corequisites: None

ART315 Ceramics: Techniques in Hand- building and Tile Construction (Min SH: 3, Max SH: 3)

A studio intensive exploration of various hand-building and tile construction techniques. The hand-built construction techniques investigated will be slab, drape, coil, additive, and reductive methods. The tile-making component of this course will emphasize various traditional and nontraditional mosaic tile construction methods. Bas, mezzo, and alto relief tile construction will be explored by creating plaster press and stamp molds of student generated relief tiles.

Prerequisites: None  
Corequisites: None

ART318 Introduction to Digital Photography (Min SH: 3, Max SH: 3)

An introduction to the art, craft and history of photography through digital media.

Prerequisites: ( ART217 ) OR ( ART217 )  
Corequisites: None

ART328 Seminar-Humanities (Min SH: 3, Max SH: 3)

In-depth exploration of a selected topic in art. Students engage in research and participate in intensive discussions. Emphasis will be on gaining critical understanding of works of art through contextualization and study of various issues related to a given genre or social/historical context.

Prerequisites: None  
Corequisites: None

ART330 Painting (Min SH: 3, Max SH: 3)

An exploration of various painting materials, techniques, and styles of painting. Stress is placed on development of a creative, personal style. Paintings from the mid-1800s to the present serve as course models. Media may include watercolor, oil and acrylic paint.

Prerequisites: None  
Corequisites: None

ART335 Sculpture and Three-Dimensional Design (Min SH: 3, Max SH: 3)

An introduction to three-dimensional design and sculpture with an examination of many sculptural techniques, both ancient and modern.

Prerequisites: None  
Corequisites: None

ART342 Print Design (Min SH: 3, Max SH: 3)

An introduction to processes and problems in designing for print media. This graphic design course specifically builds upon skills developed in ART221 Typography.

Prerequisites: ( ART221 )  
Corequisites: None



ART350 Photography 1 (Min SH: 3, Max SH: 3)

Beginning exploration of photographic processes and materials. The course attempts to take the subject matter beyond its stage of literalness to a more expressive and stylistic approach in content and technique.

Prerequisites: None

Corequisites: None

ART355 Life Studies (Min SH: 3, Max SH: 3)

An exploration and study of the anatomy and expressive qualities of the human form through drawing.

Prerequisites: ( ART312 )

Corequisites: None

ART374 Logotypes and Letterforms (Min SH: 3, Max SH: 3)

An advanced course in the creation and design of logos, logotypes, and letterforms.

Prerequisites: ( ART112 AND ART221 )

Corequisites: None

ART401 History of Modern Art (Min SH: 3, Max SH: 3)

Modern art from 1800 to 1990. Emphasis on relating concepts of modern art to the philosophy underlying development of various 19th and early 20th century art styles.

Prerequisites: None

Corequisites: None

ART405 Graphic Design Studio (Min SH: 3, Max SH: 3)

An upper level studio course in graphic design in which students engage in advanced design projects and visual problem solving. This course is aimed at helping students develop their portfolios.

Prerequisites: ( ART342 )

Corequisites: None

ART411 Interactive Animation (Min SH: 3, Max SH: 3)

Exploration of computer based animation and drawing techniques utilizing a vector-based animation program such as Macromedia Flash.

Prerequisites: ( ART212 AND ART217 ) OR ( ART112 AND ART217 )

Corequisites: None

ART415 Motion Graphics (Min SH: 3, Max SH: 3)

An advanced level studio course for working with type and image in time-based media.

Prerequisites: ( ART221 AND ART308 )

Corequisites: None

ART420 Art Since 1950 (Min SH: 3, Max SH: 3)

A survey of art since 1950. Emphasis is placed on the study of artistic movements emerging in reaction to Modernism and the impact of critical theory on late twentieth and early twenty-first century art.

Prerequisites: ( ART103 AND ART401 )

Corequisites: None

ART425 Special Problems (Min SH: 1, Max SH: 4)

Topics available from any studio course after having completed the basic course and gained permission from department. Makes possible individual study, creative work or research under the direct guidance of the art staff. May be taken for 1 to 3 credits more than one time to provide options for in-depth study within a specified area.

Prerequisites: None

Corequisites: None

ART430 American Art: Unity in Diversity (Min SH: 3, Max SH: 3)

A historical survey covering art produced in America from Colonial to Contemporary eras. Also examines influences that stem from multicultural sources, including the contributions of minorities to art in the US.

Prerequisites: ( ART103 )

Corequisites: None

ART490 Senior Capstone (Min SH: 1, Max SH: 1)

Students engage in an intensive project related to their major concentration which will culminate in an exhibition or presentation. Emphasis will be on gaining critical understanding of their work through articulation of goals, active critique, and self-assessment.

Prerequisites: ( ART440 )

Corequisites: None

ATTR100 Introduction to Athletic Training (Min SH: 3, Max SH: 3)

An introduction to the basic techniques and procedures used in the athletic training profession and to the policies and procedures of the Lock Haven University Athletic Training Education Program (ATEP). Emphasis will be on introductory athletic training skills and athletic training room management. This course will specifically train the student to be certified in professional rescuer cardiopulmonary resuscitation (CPR) and First Aid. Emphasis will be placed on skills pertaining to injury prevention and acute care.

Prerequisites: None

Corequisites: None

ATTR202 Care and Prevention of Athletic Injuries (Min SH: 3, Max SH: 3)

Designed to expose students to prevention techniques related to injuries sustained during participation in physical activity. Students will develop skills necessary to interpret risk factors associated with participation as well as prevention and recognition skills for environmental injuries.

Prerequisites: ( HLTH151 AND HLTH251 ) OR ( HLTH128 AND HLTH130 ) OR ( HLTH122 )  
Corequisites: None

ATTR230 Evidence-Based Medicine (Min SH: 1, Max SH: 1)

Designed to introduce the concepts of evidence-based medicine. Students develop the skills to generate an appropriate clinical question, search and critically evaluate the relevant literature, and make a clinical recommendation based on the findings.

Prerequisites: None  
Corequisites: None

ATTR260 General Medical Conditions in Athletic Training (Min SH: 3, Max SH: 3)

Designed to allow students to develop knowledge and skill in the assessment of general medical conditions and illnesses that occur in the physically active individual which includes an analysis of illness transmission, pathology, prevention, recognition, treatment and referral.

Prerequisites: None  
Corequisites: None

ATTR300 General Medical Conditions in Athletic Training (Min SH: 3, Max SH: 3)

Designed to allow students to develop knowledge and skill in the assessment of general medical conditions and illnesses that occur in the physically active individual which includes an analysis of illness transmission, pathology, prevention, recognition, treatment and referral.

Prerequisites: None  
Corequisites: None

ATTR304 Administration and Organization of Athletic Training 1 (Min SH: 2, Max SH: 2)

Designed to examine in-depth the various issues, policies and procedures involved with the administration of athletic training in the traditional and nontraditional settings. An intensive evaluation of facility organization and design, Standard Operating Procedures and Emergency Action Plans, legal issues, budgeting, health care services, organizations and documents that affect the profession of athletic training, and performance enhancement methods, as well as drug testing procedures are investigated.

Prerequisites: None  
Corequisites: None

ATTR342 Functional Anatomy 2 (Min SH: 4, Max SH: 4)

A clinically based approach to human anatomy stressing functional relationship and interaction of the various anatomical structures. Human cadaver dissection by the students is an integral part of the laboratory sessions. Major body areas covered include the upper extremity, head, thorax, and abdominal cavity.

Prerequisites: None  
Corequisites: None

ATTR364 Evaluation Techniques 1 (Min SH: 3, Max SH: 3)

Designed to introduce students to on-field and off-field injury evaluation techniques and management of the lower extremity. Students will develop their general evaluation skills and decide how to deal with lower extremity injuries of the foot, ankle, lower leg, knee, hip, thigh, pelvis, and lumbar spine.

Prerequisites: None  
Corequisites: None

#### ATTR365 Evaluation Techniques 2 (Min SH: 3, Max SH: 3)

Designed to introduce students to on-field and off-field injury evaluation techniques and management of the upper extremity, head, neck, and thorax. Students will develop their general evaluation skills and incorporate clinical reasoning in the selection of assessment procedures and interpretation of findings to formulate a differential diagnosis and/or diagnosis.

Prerequisites: None  
Corequisites: None

#### ATTR404 Administration and Organization of Athletic Training 2 (Min SH: 2, Max SH: 2)

Designed to prepare students for employment by organizing a resume, developing interview skills and employee evaluations, researching continuing education options, making decisions about employee conflict, and identifying Federal and State laws governing employment. Students will learn about the psychological techniques pertinent to athletics, as well as appropriate referral options and counseling techniques. In addition, this course will provide students with a strong background in research methodology and current issues in athletic training.

Prerequisites: None  
Corequisites: None

#### ATTR410 Administration and Organization of Athletic Training (Min SH: 3, Max SH: 3)

An in-depth analysis of the issues, policies, and procedures involved with the organization and administration of athletic training in the traditional and non-traditional settings. This course evaluates allied health care professions, facility design, standard operating procedures, emergency action plans, budgeting, and health care services, as well as organizations and documents that affect the profession of athletic training.

Prerequisites: None  
Corequisites: None

#### ATTR415 Current Issues in Athletic Training (Min SH: 3, Max SH: 3)

Analyzes the ever-changing factors that affect the athletic training profession. Students will evaluate continuing education options, analyze employment recruiting and retention practices, and review state and federal legislative efforts. Students will also be exposed to the associations and agencies that regulate the profession and the governing documents that they publish.

Prerequisites: None  
Corequisites: None

#### ATTR453 Clinical Experience 1 (Min SH: 3, Max SH: 3)

Designed to provide opportunities for athletic training students to develop clinical skills in real life situations under the direct supervision of a clinical preceptor. This course is the first of four clinical experiences occurring in a variety of clinical settings with a variety of patient populations. The skills developed by the students will address competencies and proficiencies as directed by the National Athletic Trainers' Association Educational Competencies.

Prerequisites: None  
Corequisites: None

#### ATTR455 Clinical Experience 3 (Min SH: 3, Max SH: 3)

Designed to provide opportunities for athletic training students to develop clinical skills in real life situations under the direct supervision of a clinical instructor. This course is the third of four clinical experiences occurring in a variety of clinical settings with a variety of patient populations. The skills developed by the students will address competencies and proficiencies as directed by the National Athletic Trainers' Association Educational Competencies.

Prerequisites: None  
Corequisites: None

#### ATTR456 Clinical Experience 4 (Min SH: 6, Max SH: 6)

Designed to provide opportunities for athletic training students to develop clinical skills in real life situations under the direct supervision of a clinical instructor. This course is the final of four clinical experiences occurring in a variety of clinical settings with a variety of patient populations. The skills developed by the students will address competencies and proficiencies as directed by the National Athletic Trainers' Association Educational Competencies.

Prerequisites: None  
Corequisites: None

#### ATTR457 Athletic Training Clinical Experience 5 (Min SH: 2, Max SH: 2)

This course is designed to allow students to begin applying athletic training clinical skills and proficiencies to real life situations under the supervision of a certified athletic trainer. The skills developed by the students will address competencies listed under the following content areas: Risk Management and Injury Prevention, Assessment and Evaluation, Acute Care of Injury and Illness, Pharmacology, Therapeutic Modalities, Therapeutic Exercise, General Medical Conditions and Disabilities, Nutritional Aspects of Injury and Illness, Psychosocial Intervention and Referral, and Health Care Administration. Restricted to students accepted into the Athletic Training Education Program.

Prerequisites: None  
Corequisites: None

#### ATTR462 Physical Modalities in Sports Medicine (Min SH: 4, Max SH: 4)

Designed as an in-depth analysis of the theory and application of hydrotherapy, electrotherapy, thermotherapy, cryotherapy, manual, and mechanical techniques for the treatment of injuries in the physically active patient.

Prerequisites: None  
Corequisites: None

#### ATTR463 Therapeutic Exercise and Rehab (Min SH: 4, Max SH: 4)

Designed to teach the theory and application of exercise prescription and rehabilitation techniques. Equipment utilized in the prevention and treatment of injuries is presented. Students will develop the skills necessary to design and implement an exercise program for individuals in both the healthy and diseased states.

Prerequisites: None  
Corequisites: None

#### ATTR472 Therapeutic Interventions 1 (Min SH: 4, Max SH: 4)

Provides athletic training students the theoretical foundation and clinical skills necessary to create and implement therapeutic interventions for the physically active. The course focuses on the foundational knowledge required to develop evidence-based treatment programs.

Prerequisites: None

Corequisites: None

#### ATTR473 Therapeutic Interventions 2 (Min SH: 4, Max SH: 4)

Provides athletic training students the theoretical foundations and clinical skills necessary to create and implement therapeutic interventions. The course focuses on developing injury or condition specific evidence-based treatment programs in the physically active population.

Prerequisites: None

Corequisites: None

#### BIOL102 Environmental Science (Min SH: 3, Max SH: 3)

An introduction to ecological principles and concepts with an examination of the biological basis of contemporary environmental problems. Central topics include the social, political, ethical, and economic factors that influence the biological aspects of environmental issues such as population control, pollution, land use, as well as conservation of natural resources and natural habitats. Laboratory exercises demonstrate some of the biological aspects of environmental issues and introduce students to basic processes used in environmental research.

Prerequisites: None

Corequisites: None

#### BIOL103 Inquiry into Biology (Min SH: 3, Max SH: 3)

An overview of the fundamental principles of biology that are emphasized in the National Science Education Standards, focusing on the nature and the processes of science. The course models hands-on, inquiry-based practices as students use reasoning, analysis, scientific processes, procedures and tools of scientific investigations to learn about the structure and functions of organisms, continuity of life and ecological systems.

Prerequisites: None

Corequisites: None

#### BIOL106 Principles of Biology 1 (Min SH: 3, Max SH: 3)

An introduction to biology with emphasis on the chemistry of life, cell structure and function, cellular metabolism and cell reproduction. Laboratory exercises are designed to reinforce principles covered in lecture and to provide students with experiences in making observations, hypothesis testing, and data collection, analysis and interpretation. This course is designed for science and health science majors.

Prerequisites: None

Corequisites: None

#### BIOL107 Principles of Biology 2 (Min SH: 3, Max SH: 3)

A continuation of BIOL106: Principles of Biology I with emphasis on cell reproduction and development, genetics, molecular biology, biological evolution and the diversity of life, behavioral ecology, and fundamentals of ecology. Laboratory exercises are designed to reinforce and supplement principles covered in lecture and to provide students with experiences in making observations, hypothesis testing, and data collection, analysis and interpretation.

Prerequisites: ( BIOL106 )

Corequisites: None

#### BIOL108 Field Natural History (Min SH: 3, Max SH: 3)

A survey course examining the variety of living things in Pennsylvania by focusing on the evolutionary history, taxonomy, life histories, diversity and ecological value of a variety of representative and biologically important groups of organisms. The impacts of human interactions with organisms are studied throughout the course. The course emphasizes identification of species (or other taxa) of plants and animals, habitat needs and their influence on economics and social life of humans.

Prerequisites: None

Corequisites: None

#### BIOL125 Topics in Biology (Min SH: 3, Max SH: 3)

An introduction to fundamental biological concepts in the context of contemporary biological issues that affect citizens of human communities and members of broader biotic communities. Antibiotic resistance, human reproduction, disease, bio-magnification, climate change, and community level impacts of invasive species are just some of the contemporary topics that may be explored. Students will experience why biology is a fascinating human endeavor. Intended for non-science majors.

Prerequisites: None

Corequisites: None

#### BIOL130 Human Biology for Social Workers (Min SH: 3, Max SH: 3)

An overview of human bodily form and function appropriate for Social Work majors. Particular focus will be on where and to what degree the disciplines of Biology and Social Work overlap. The course will provide students with a foundational skill-set in biological knowledge for future employment in the field of social work.

Prerequisites: ( BIOL101 )

Corequisites: None

#### BIOL141 Introduction to Watershed Ecology 2 (Min SH: 1.5, Max SH: 1.5)

Designed for students to apply baseline ecological knowledge and techniques to the study of local ecosystems. An emphasis is placed on applying experimental techniques and concepts learned in Introduction to Watershed Ecology 1. Students will collect data from streams and forests and contribute to a long-term ecological monitoring dataset. Projects may include fish diversity studies, food web analysis, invertebrate or algal diversity, leaf decay, flow regime, and primary production measures.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL140 )

Corequisites: None

#### BIOL200 Marine Biology (Min SH: 3, Max SH: 3)

A study of plant and animal life in the marine environment. Emphasis will be on physical and chemical factors affecting the biota in the intertidal, open water, and benthic habitats. Common biota characteristic of each habitat will be investigated in terms of their natural history, morphology and ecological relationships. Laboratory and field exercises will emphasize the identification, anatomy, physiology, systematics and behavior of marine plants and animals as well as the physical and chemical properties of seawater. This class will be taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

BIOL202 Genetics (Min SH: 3, Max SH: 3)

An overview of the basic principles of Mendelian genetics, cytogenetics, molecular genetics, and population genetics. Laboratory exercises emphasize molecular techniques, statistical evaluation of results, and case studies.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: (CHEM121 )

BIOL205 Marine Ecology (Min SH: 3, Max SH: 3)

A study of the interrelationships among animals, plants, and physical and chemical aspects of the marine environment with an emphasis on unique adaptations for survival. This class is taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

BIOL206 Botany (Min SH: 3, Max SH: 3)

An introduction to the principles of botany. Emphasis is placed on the integration of structure and function that reflect plant diversity and evolution. The primary models for this approach are angiosperms but also include discussions of other plant taxa. Topics covered include plant cellular structure; anatomy and morphology of stems, roots, leaves, and flowers; transport processes; photosynthesis and respiration; plant growth and development; plant diversity; plant interactions with the environment; and economic botany.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

BIOL213 Introduction to Geographic Information Systems (Min SH: 3, Max SH: 3)

An introduction to geographic information systems (GIS) with emphasis on capturing, storing, editing, querying, displaying, and analyzing geographically referenced data. Lecture and laboratory materials are designed to provide students with hands-on experience on real-world applications of GIS in their respective fields.

Prerequisites: None

Corequisites: None

BIOL215 Basic Microbiology (Min SH: 4, Max SH: 4)

Introduces clinical nursing students to the biology, metabolism, classifications, ecology, genetics and evolution of microbes. Emphasis is placed on the role of bacteria in human health and disease, control of microbial growth, and antimicrobial resistance. The laboratory includes techniques in handling, isolation, cultivation, staining, identification, and control of microorganisms. Intended for students in the Nursing program and will not satisfy a core requirement for a BS degree in Biology.

Prerequisites: None

Corequisites: None

BIOL240 Zoology (Min SH: 3, Max SH: 3)

A survey of the animal kingdom with emphasis on evolutionary relationships within, between, and among constituent phyla. Lectures emphasize diversity, comparative anatomy, functional morphology, physiology, life history, ecology, and evolution.



Laboratories emphasize and provide support for lecture concepts and comprise microscope analysis and gross animal dissection.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

#### BIOL245 Marine Invertebrates (Min SH: 3, Max SH: 3)

Designed to utilize the marine invertebrate taxa to introduce students to the unique specializations that animals have evolved which allow them to successfully carry out the processes necessary for life and to exploit a wide variety of marine habitats. Major trends in invertebrate evolution will be used to illustrate the historical constraints upon these solutions and the necessity of narrative explanations of form and function in animals. It is assumed that each student has been introduced to the major taxa of animals in a prior introductory zoology course. Taxonomy will be used as a heuristic tool, but will not be stressed as a separate subject. This class will be taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL240 )

Corequisites: None

#### BIOL250 Wetlands Ecology (Min SH: 3, Max SH: 3)

An overview of the essential role of wetlands in ecological systems. Because wetlands are transitional between aquatic and terrestrial systems, they require an interdisciplinary approach to be fully understood. This class will be taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.-

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

#### BIOL301 Behavior of Marine Organisms (Min SH: 3, Max SH: 3)

Concepts of ethology; discussion and observation of the influences of external and internal factors on the regulation and control of behavior of organisms living in the marine coastal environment. This class will be taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

#### BIOL302 Developmental Biology (Min SH: 3, Max SH: 3)

A study of classic embryology as well as relevant findings in cytogenetics, cell and molecular biology, and biochemistry, as it relates to structural and functional changes in molecules, cells, tissues, and organs during developmental cycles of plants and animals. Labs will include developmental study of living organisms as well as the study of prepared stages of development.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL202 )

Corequisites: None

#### BIOL303 Vertebrate Endocrinology (Min SH: 2, Max SH: 2)

A survey courses of the major endocrine systems in vertebrates. An introduction to the chemistry and cellular mechanisms of action of different hormones is followed by in-depth discussions of the physiological effects of hormones. Topics include hypothalamic-pituitary interactions, reproduction, growth, osmoregulation, digestion and metabolism, and stress. Mammalian endocrinology is emphasized with discussion of important species differences in endocrine systems.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL202 ) OR ( BIOL106 AND BIOL107 AND BIOL240 )  
Corequisites: None

BIOL305 Ichthyology (Min SH: 3, Max SH: 3)

This course is an introduction to the study of evolution, taxonomy and morphology of fishes. Emphasis is placed on biodiversity, morphology, and conservation of fishes. Lecture topics include the nomenclature, history and techniques of both ichthyology and fisheries biology. Laboratory emphasis will be on identification, dissection, and the standard techniques used in field collections.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL240 )  
Corequisites: None

BIOL310 Immunology (Min SH: 3, Max SH: 3)

An introduction to the study of immunology. Development, function, and interaction of the innate, adaptive, cellular, and humoral components of the immune system will be discussed. Immunopathology will be considered including infections, immunodeficiencies, and autoimmune diseases. The immune system implications of transplantation, vaccination, cancer, and hypersensitivities will be included.

Prerequisites: ( BIOL202 ) OR ( BIOL225 )  
Corequisites: None

BIOL312 Marine Botany (Min SH: 3, Max SH: 3)

This course is the study of the primary producers of the ocean, estuaries and terrestrial margins. This includes the study of phytoplankton, benthic macrophytes, salt marsh macrophytes, and other edge communities like salt flats, mangroves and dunes. Although taxonomy will be important, it is not the sole focus of the course. Plant physiology and ecology will be stressed. The laboratory portion of the course will stress practical methods of measurement of the plants and their environment. This includes voucher production and specimen preservation, basic physical and chemical methods of abiotic environment measurement, growth and constituent analysis of plant tissue, chlorophyll analysis and wet and dry weight determination for biomass. This class will be taught during summer sessions at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL206 AND CHEM120 )  
Corequisites: None

BIOL315 Comparative Vertebrate Anatomy (Min SH: 3, Max SH: 3)

A study of the evolutionary history and function of organ systems of different vertebrate classes with respect to each other and other subphyla within the phylum Chordata. Comparative dissections of specimens from selected vertebrate classes will be carried out.

Prerequisites: ( BIOL240 )  
Corequisites: None

BIOL317 Mycology (Min SH: 3, Max SH: 3)

A detailed examination of mushrooms, molds, and human mycoses, including an introduction to fungal ecology and assessment of fungal classification, as well as molecular systematics and an overview of medical significance. The course utilizes hands-on student-driven, inquiry-based practices. Students will use scientific processes and procedures, data analysis, and research tools to investigate fungal morphogenesis, molecular diagnostics, culture techniques, ecological relationships, and human pathogenesis.

Prerequisites: ( BIOL202 AND CHEM121 )  
Corequisites: None

BIOL321 Marine Molecular Technology: Applications for Management and Forensics (Min SH: 3, Max SH: 3)

Students will gain an overview of modern molecular technology and how it can be applied to the management of marine organisms and the forensics field. The laboratory component will allow students to learn some of the most widely used techniques and instrumentation in the molecular field.

Prerequisites: ( BIOL106 AND BIOL107 )  
Corequisites: None

BIOL323 Bioinformatics and Genomics (Min SH: 3, Max SH: 3)

An introduction to recent technological advances in the life sciences that allow DNA sequencing of entire genomes and the analysis of the gene products of whole genomes simultaneously in one experiment. Topics include the structure and mechanics of the eukaryotic genome, transcriptome, and proteome in detail, with emphasis on hands-on exercises using public databases and software to extract, analyze and manipulate DNA and protein sequences.

Prerequisites: ( BIOL202 )  
Corequisites: None

BIOL325 Cancer Biology (Min SH: 3, Max SH: 3)

A study of topics relevant to cancer, with an emphasis on the experiments that led to our current understanding of the disease. There will be a focus on the cellular and molecular basis of cancer, and the specific topics will include tumor suppressor genes, oncogenes, cell signaling, DNA mutation and repair, apoptosis, metastasis, and angiogenesis. Various approaches for the treatment of cancer will also be discussed.

Prerequisites: ( BIOL202 ) OR ( BIOL225 )  
Corequisites: None

BIOL330 Cell and Molecular Biology (Min SH: 4, Max SH: 4)

An in-depth study of cellular chemicals, molecular genetics, cellular functions, and cellular communication. Laboratory experiments give theoretical and hands-on experience in molecular techniques, such as gel electrophoresis, DNA isolation, restriction digestion, DNA purity and quantification, probe hybridization and detection, and Polymerase Chain Reaction (PCR).

Prerequisites: ( BIOL202 ) OR ( BIOL225 )  
Corequisites: None

BIOL340 Microbiology (Min SH: 4, Max SH: 4)

A study of the anatomy, physiology, and taxonomy of microorganisms with a primary emphasis on prokaryotes. The laboratory component provides critical hands-on experience in standard bacteriological techniques involving the handling, cultivation, isolation, and identification of microorganisms. Additional emphasis will be placed on the role of bacteria, viruses, and other microorganisms in environmental and public health issues.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL202 AND CHEM121 ) OR ( BIOL106 AND BIOL107 AND BIOL225 AND CHEM121 )  
Corequisites: None

BIOL345 Advanced DNA Methods (Min SH: 3, Max SH: 3)

A technique-oriented course that presents the theory and methods associated with characterizing organisms using modern DNA-based methods such as genotyping and sequencing. The laboratory techniques in this class can be used for human identification, species verification, parentage testing, and evolutionary research. Example topics include sample preparation, PCR, qPCR, lab math, and theory/operation of the ABI 310 Genetic Analyzer, including interpretation of results and troubleshooting.

Prerequisites: ( BIOL202 ) OR ( BIOL330 )

Corequisites: None

#### BIOL400 Ecology of Marine Plankton (Min SH: 3, Max SH: 3)

A study of the phytoplankton and zooplankton in marine and brackish environments. In laboratory qualitative and quantitative comparisons will be made between the planktonic populations of various types of habitats in relation to primary and secondary productivity. This class will be taught during summer session at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 AND BIOL309 )

Corequisites: None

#### BIOL402 Biological Evolution (Min SH: 3, Max SH: 3)

Intended for students interested in examining in detail the phenomenon of biological evolution. Although topics such as Cultural Evolution and Creationism will be considered briefly, the focus of this offering will be evolution as manifest in natural, biological systems. Topics to be presented via lecture and student presentation will include Population Genetics, Darwinism, Natural Selection, Sexual Selection and Altruism, Molecular Evolution, Human Origins and Evolution and Extinction.

Prerequisites: ( BIOL202 )

Corequisites: None

#### BIOL403 Coral Reef Ecology (Min SH: 3, Max SH: 3)

A study of coral reef structure, formation, types, and the relationships of reef organisms to their environment. Emphasis is given to species diversity, identification, symbioses, and effects of temperature, salinity, light, nutrient concentration, predation, and competition on the abundance and distribution of coral reef organisms. This class will be taught during summer sessions at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

#### BIOL405 Field Ecology (Min SH: 3, Max SH: 3)

An advanced study of terrestrial community ecology including interactions between animal and plant populations. Special emphasis will be placed on standard techniques for estimating population size of various taxa, sampling plant community structure and statistical analysis and written interpretation of data.

Prerequisites: ( BIOL309 )

Corequisites: None

#### BIOL410 Organismal Physiology (Min SH: 3, Max SH: 3)

A study of homeostatic mechanisms and systems in organisms and their relation to fundamental chemical and physical events in cells. Topics such as bioenergetics, osmoregulation, movement, and information processing are discussed as they relate to the function of organisms.

Prerequisites: ( BIOL106 AND BIOL107 AND CHEM121 )

Corequisites: None

BIOL411 Aquatic Biology (Min SH: 3, Max SH: 3)

Flora and fauna of fresh water ecosystems. Emphasis on the biotic, physical and chemical characteristics of lotic and lentic systems and how these may affect abundance, distribution, and evolution within aquatic communities. Ecological effects of water pollution and some possible solutions for our increasing world problems. Laboratory will stress use of keys, field methods of water analysis, and applied techniques of individual scientific research.

Prerequisites: ( BIOL106 AND BIOL107 AND CHEM121 )

Corequisites: None

BIOL413 Entomology (Min SH: 3, Max SH: 3)

An introduction to the study of insects. Emphasis will be placed on internal and external structure and function, unity and diversity among Class Insecta and Phylum Arthropoda, and applied entomology.

Prerequisites: ( BIOL309 )

Corequisites: None

BIOL415 Environmental Policy and Regulations (Min SH: 3, Max SH: 3)

A review of significant United States Federal and Pennsylvania legislation and regulations pertinent to the study, protection and management of our biological resources. The legislation and rulemaking processes relevant to environmental issues will be investigated. The biological basis for resource management decisions and the role of the scientist in advocating, writing and implementing environmental legislation and regulations will be examined in detail.

Prerequisites: ( BIOL309 )

Corequisites: None

BIOL421 Marine Mammals (Min SH: 3, Max SH: 3)

A study of the distribution, population ecology, behavior, physiology and adaptations of marine mammals. Student projects will entail collecting physiological and behavioral data at field sites and at facilities studying marine mammals.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

BIOL422 Biological Oceanography (Min SH: 3, Max SH: 3)

Investigates the interactions among ocean communities (planktonic, benthic and nektonic) and the marine environment (chemical and physical). The effects of the environment on the distribution and abundance of marine organisms as well as their effect on the environment are emphasized. This class will be taught during summer sessions at the Wallops Island Campus of the Marine Science Consortium by faculty from various member universities.

Prerequisites: ( BIOL106 AND BIOL107 )

Corequisites: None

BIOL425 Environmental Toxicology (Min SH: 3, Max SH: 3)

An introduction to environmental toxicology and an interdisciplinary study of the major classes of pollutants. Focus is on the effects of environmental toxins on living organisms and the ecosystem.

Prerequisites: ( BIOL309 AND CHEM205 ) OR ( BIOL309 AND CHEM220 )

Corequisites: None

BIOL432 Ecosystems (Min SH: 3, Max SH: 3)

An introduction to contemporary ecosystem science, focusing on two core concepts: energetics and biogeochemistry of ecosystems. This course will explore the interactions of terrestrial ecosystems (vegetative communities, forests, and soils) and aquatic systems (streams and lakes). Case studies and field work will be used to demonstrate the tools and methods by which ecosystem processes can be measured and analyzed.

Prerequisites: ( CHEM121 )

Corequisites: (BIOL309 )

BIOL440 Environmental Microbiology (Min SH: 3, Max SH: 3)

Provides a fundamental knowledge base of general microbiology, microbial ecology, and specific microbial processes essential to many sub-disciplines of environmental microbiology. Through intensive discussions, applied research investigations, and hands-on laboratory- and field-based experiences, students will be introduced to a variety of topics that are central to understanding microbial diversity and microbial evolution.

Prerequisites: ( BIOL340 AND CHEM205 ) OR ( BIOL340 AND CHEM220 )

Corequisites: None

BIOL450 Biology Senior Seminar (Min SH: 1, Max SH: 1)

A discussion-based course of current biological topics in which students read and critically evaluate scientific writing then present seminars and lead discussions on the articles. Themes and topics will vary with the instructor; thus, students may take this course more than once if the topic differs.

Prerequisites: None

Corequisites: None

CHEM101 Chemistry in the Environment (Min SH: 3, Max SH: 3)

An introduction to chemical principles as they apply to important issues in everyday life. The American Chemical Society Program Chemistry in Context serves as the basis for the course. The laboratory experience emphasizes the scientific method and is designed to reinforce the topics from the lecture. Students make real world measurements as part of investigations of their environment and the applications of chemistry to their lives.

Prerequisites: None

Corequisites: None

CHEM103 The Chemistry of Art (Min SH: 3, Max SH: 3)

An exploration of the intersection of chemistry with the visual arts. Basic principles of chemistry will be applied to the topics of color, paint, paper, clay, glass, metals, photography, and art restoration. Important chemical concepts and safety concerns will be investigated to learn how to properly handle art materials.

Prerequisites: None

Corequisites: None

CHEM105 Forensic Chemistry (Min SH: 3, Max SH: 3)

An introduction to chemical principles as they apply to forensic investigations. By applying the scientific method to these basic principles, students will investigate the role of chemistry in solving crimes. The laboratory experience is designed to reinforce the scientific method and the topics from the lecture. Students make real world determinations as they investigate and apply chemistry to their lives.

Prerequisites: None

Corequisites: None

CHEM110 Basic Chemistry (Min SH: 3, Max SH: 3)

Introduces chemical principles as they apply to important issues in everyday life and incorporates chemical principles and problem solving into examples to help students gain an understanding of scientific and technological aspects of the contemporary world. Topics may include the properties of matter, atomic theory, chemical bonding, molecular structure, and types of chemical reactions.

Prerequisites: ( MATH100 )

Corequisites: None

CHEM120 Principles of Chemistry 1 (Min SH: 4, Max SH: 4)

The first of two semesters of a standard general chemistry sequence. Topics include measurement and dimensional analysis, atomic and molecular structure, mole and stoichiometry calculations, gas laws, thermochemistry, introductory quantum mechanics, electron configuration and periodicity. The chemistry laboratory work emphasizes introductory level techniques and follows several of the lecture topics.

Prerequisites: ( MATH112 ) OR ( MATH141 ) OR ( MATH142 ) OR ( MATH113 )

Corequisites: None

CHEM121 Principles of Chemistry 2 (Min SH: 4, Max SH: 4)

Second of two semesters of a standard general chemistry sequence. Topics include solids and liquids, solutions and solubility, kinetics, equilibrium, acids and bases, spontaneity and free energy, electrochemistry, and nuclear chemistry. The chemistry laboratory work is introductory in nature and follows several of the lecture topics. Qualitative analysis is included as part of the laboratory experience.

Prerequisites: ( CHEM120 )

Corequisites: None

CHEM205 Introduction Organic Chemistry (Min SH: 4, Max SH: 4)

An integrated course covering the properties, reactions, and preparations of both aliphatic and aromatic compounds from the functional group approach with focus on their biological applications. Explanations are given in terms of mechanisms, rearrangements, stereochemistry, and energy diagrams. Laboratory exercises consist of key separation and purification techniques, representative preparations of simple biologically active molecules, and the identification of unknowns by their physical and chemical behavior.

Prerequisites: ( CHEM121 )

Corequisites: None

CHEM220 Organic Chemistry 1 (Min SH: 4, Max SH: 4)

An integrated lecture and lab course covering the properties, reactions, and preparations of both aliphatic and aromatic compounds. The properties of organic compounds are explored from the combined perspectives of functional groups, chemical reactivity, stereochemistry, energy changes, and reaction mechanisms. Lab consists of introduction to techniques of identification, purification, and preparation of organic compounds, and the use of instrumental analysis.

Prerequisites: ( CHEM121 )

Corequisites: None

#### CHEM221 Organic Chemistry 2 (Min SH: 4, Max SH: 4)

An extension of CHEM220 concepts that underlie the reaction mechanisms and synthesis of the organic compounds encountered in CHEM221. The chemistry of carbonyl compounds and aromatic compounds are major parts of the content. Laboratory experiments emphasize the synthesis of organic compounds and their identification by their physical and chemical properties. The design of experimental procedures is stressed, and students carry out multi-step processes.

Prerequisites: ( CHEM220 )

Corequisites: None

#### CHEM301 Inorganic Chemistry (Min SH: 3, Max SH: 3)

Introduces fundamental concepts of inorganic chemistry including atomic and molecular structure, bonding theories, group theory, coordination chemistry and descriptive chemistry of the elements.

Prerequisites: ( CHEM221 ) OR ( CHEM205 )

Corequisites: None

#### CHEM302 Introduction to Computational Chemistry (Min SH: 3, Max SH: 3)

An introduction to the field of computational chemistry including molecular mechanical, semi-empirical, ab initio wavefunction, and density functional modeling of chemical systems. This course enables students to use computational chemistry in their studies and to be critical consumers of computational chemistry results in scientific literature.

Prerequisites: ( CHEM221 AND MATH141 )

Corequisites: (CHEM221 ANDPHYS131 ) OR (CHEM221 ANDPHYS171 )

#### CHEM315 Medicinal Chemistry (Min SH: 3, Max SH: 3)

A study of medicinal chemistry with major emphasis on organic chemistry as applied to the principles of drug discovery, drug development, drug-receptor interactions and structure-activity relationships. Aspects of biochemistry and physical-organic chemistry will be covered as necessary to understand the chemistry of drug action and metabolism in the body. Examples from the major classes of drugs will be used to facilitate discussion and examine the role of medicinal chemistry in Western medicine.

Prerequisites: ( CHEM221 )

Corequisites: None

#### CHEM316 Quantitative Analysis (Min SH: 4, Max SH: 4)

An introduction to statistical analysis of experimental data, validation of analytical methods, gravimetric analysis, potentiometric measurements, and electrodes. In addition, advanced examination of stoichiometric calculations, chemical equilibrium, acid-base equilibria, acid-base titrations, and complexometric titrations will be undertaken. Laboratory experimentation involves titrations, gravimetric analysis, electrochemical measurements, calibration of volumetric glassware, and statistical analysis.



Prerequisites: ( CHEM121 )

Corequisites: None

#### CHEM317 Instrumental Analysis (Min SH: 4, Max SH: 4)

An integrated lecture and laboratory course covering the fundamentals of spectroscopy, chromatography, electrochemistry, and mass spectrometry. Lecture topics include data treatment, data interpretation, theory of the underlying principles, and basic operating principles. Special attention is given to how these techniques are used to solve analytical problems, examples being taken from other areas of science. Laboratory experiments focus on the operation, maintenance, and optimization of instrumentation and interpretation of laboratory data.

Prerequisites: ( CHEM316 )

Corequisites: None

#### CHEM320 Chemical Thermodynamics and Kinetics (Min SH: 4, Max SH: 4)

A study of the content and transfer of energy in physical and chemical reactions. The laws of thermodynamics, and the concepts of work, enthalpy, entropy, and free energy are defined and given in a detailed quantitative treatment. The course also provides a detailed introduction to the topics of kinetics and reaction dynamics. The laboratory portion of the course is designed to provide students experience with a broad range of the topics covered during the course.

Prerequisites: ( CHEM221 AND MATH141 AND PHYS131 ) OR ( CHEM221 AND MATH141 AND PHYS171 )

Corequisites: (CHEM316 ANDPHYS131 ) OR (CHEM316 ANDPHYS171 )

#### CHEM321 Quantum Chemistry and Spectroscopy (Min SH: 4, Max SH: 4)

An exploration of the application of quantum mechanics to understanding chemical phenomena, with special emphasis on chemical structure and spectroscopy.

Prerequisites: ( MATH142 AND PHYS171 ) OR ( MATH142 AND PHYS131 )

Corequisites: (CHEM221 )

#### CHEM325 Nuclear Chemistry and Its Applications (Min SH: 3, Max SH: 3)

A study of the principles underlying the nature of radioisotopes, their chemical implications, and the various chemical, biological, and industrial applications of radioisotopes. Particular emphasis will be placed on factors contributing to nuclear instability, the nature of the decay process, the handling and measurement of radioisotopes, and the practical aspects of nuclear power generation.

Prerequisites: ( CHEM220 ) OR ( CHEM205 )

Corequisites: None

#### CHEM328 Seminar-Science (Min SH: 3, Max SH: 3)

An exploration of various topics in chemistry with an emphasis on the impact of major chemical concepts, discoveries, inventions, and/or paradigms on global or international history, society, and/or culture. Specific topic selection is based on the expertise and interest of the faculty.

Prerequisites: None

Corequisites: None

CHEM350 Polymer Chemistry (Min SH: 3, Max SH: 3)

A course covering the properties, reactions, and preparations of both aliphatic and aromatic compounds from the functional group approach with focus on their biological applications. Explanations are given in terms of mechanisms, rearrangements, stereochemistry, and energy diagrams. Laboratory exercises consist of key separation and purification techniques, representative preparations of simple biologically active molecules, and the identification of unknowns by their physical and chemical behavior.

Prerequisites: ( CHEM221 )

Corequisites: None

CHEM404 Spectroscopic Methods of Molecular Structure Determination (Min SH: 3, Max SH: 3)

An in-depth analysis of spectral data for the purpose of determining the structure of an unknown compound. The theory of each spectroscopic method, sample preparation, instrumentation, and application and limitations of each method will also be discussed. Examples from both organic and inorganic chemistry will be used.

Prerequisites: ( CHEM220 )

Corequisites: None

CHEM410 Biochemistry (Min SH: 4, Max SH: 4)

An introduction to modern biochemistry at the molecular level. Emphasis will be given to the structure and function of the major classes of biomolecules (proteins, nucleic acids, carbohydrates and lipids) and the bioenergetics of metabolic pathways. The laboratory portion will include the application of modern biochemical methods of analysis to the problems of: purification and characterization of biomolecules, quantitative measurement of enzyme activities, and the evaluation of metabolic processes.

Prerequisites: ( CHEM221 ) OR ( CHEM205 )

Corequisites: None

CHEM415 Biochemistry 2 (Min SH: 4, Max SH: 4)

An extension of Biochemistry with an emphasis on biological synthesis of the building blocks of the major classes of biomolecules. Specifically, it is an overview of the metabolic transformations of fatty acids, complex lipids, amino acids and nucleotides. The course will also provide an introduction to cellular signaling and specialized topics in biochemistry. The laboratory portion will expand on the techniques learned in first semester and research methods by undertaking independent/small group projects.

Prerequisites: ( CHEM410 )

Corequisites: None

CHEM430 Advanced Organic Chemistry (Min SH: 4, Max SH: 4)

An in-depth study of organic chemistry with major emphasis on physical aspects as applied to syntheses, spectroscopy, structure elucidation, and reaction mechanisms. The laboratory component will emphasize advanced experimental techniques used in synthesis, mechanism elucidation, and the characterization of organic compounds.

Prerequisites: ( CHEM221 )

Corequisites: None

CHEM440 Advanced Inorganic Chemistry (Min SH: 4, Max SH: 4)

Examines major topics in theoretical and descriptive inorganic chemistry including acid-base chemistry, oxidation and reduction, chemistry of transition metals, organometallic chemistry, catalysis, inorganic clusters, solid state and bioinorganic chemistry. The laboratory component of this course emphasizes experimental techniques in the synthesis and characterization of inorganic compounds.

Prerequisites: ( CHEM301 )

Corequisites: None

#### CHEM450 Biophysical Chemistry (Min SH: 4, Max SH: 4)

A discussion of physiochemical principles with a focus concerning their application in the study and understanding of the behavior of biological systems. Broadly, topics will include thermodynamics, chemical equilibrium, kinetics, and spectroscopy. Modern biophysical techniques commonly used for macromolecular characterization will be covered with a focus on theory and data interpretation. In addition, the laboratory portion of the course will provide a setting for students to utilize biophysical techniques and collect, analyze, and present data.

Prerequisites: ( CHEM410 )

Corequisites: (MATH141 )

#### COMM102 Fundamentals of Public Speaking (Min SH: 3, Max SH: 3)

Designed to increase the student's ability to express their ideas both verbally as well as in writing, strengthen delivery competence in a variety of public speaking opportunities, and develop the critical listening skills needed to analyze and evaluate the speeches of others. Public speeches are not only a means of communicating; they are also a form of self-expression and influence within a society.

Prerequisites: None

Corequisites: None

#### COMM103 Small Group Communication (Min SH: 3, Max SH: 3)

Addresses the theory and practice of small group communication. Students will identify and demonstrate the techniques of how to lead and participate in a small group.

Prerequisites: None

Corequisites: None

#### COMM104 Interpersonal Communication (Min SH: 3, Max SH: 3)

Emphasizes understanding and improving habits of human communication. The student will gain insight in the areas of applied interpersonal communication ethics -- skills needed in managing personal, community, and corporate relations in ways that are both effective and appropriate. The student will also display and support interpersonal competencies through a variety of communication mediums, which build communicator versatility.

Prerequisites: None

Corequisites: None

#### COMM119 First Year Seminar for Communication Students (Min SH: 1, Max SH: 1)

Introduces communication majors to the university learning environment and their chosen program of study. Students will learn about the requirements of the Communication program, internship options, career paths, and the competencies and professional behaviors expected of professionals in the field. The course also covers specific learning strategies, classroom technologies, and institutional resources that might help them achieve their goals in academe.

Prerequisites: None  
Corequisites: None

COMM150 Intro Mass Communication (Min SH: 3, Max SH: 3)

A survey of the American mass media with emphasis on historical development, economic structure, organization, function and effects in society today.

Prerequisites: None  
Corequisites: None

COMM190 Writing for the Mass Media (Min SH: 3, Max SH: 3)

Examines basic principles of effective multi-media writing, emphasizing in particular the development and organization of ideas relevant to news events and the expression of those ideas in clear expository prose. Students will be introduced to a variety of prose models and write a specified number of news articles. The news writing process includes researching, interviewing, drafting, revising, and submitting in a timely fashion.

Prerequisites: None  
Corequisites: None

COMM200 Voice and Articulation (Min SH: 3, Max SH: 3)

Improvement of the physical act of speaking through work on diction, projection, vocal quality, pitch, and time factors. Physiological, phonetic, and psychological foundations considered. Students will be introduced to the rudiments of the international phonetic alphabet. Individual and group activities are an integral part of this course. Class attendance is a critical part of the successful completion of this course.

Prerequisites: None  
Corequisites: None

COMM202 Communication Practicum 2 (Min SH: 1, Max SH: 1)

Provides hands-on skill development related to the student's disciplinary interests within the Communication program. Students majoring in the Journalism, Electronic Media, and Public Relations and Advertising tracks in the Communications program will complete three credits of Practicum during their sophomore and junior years. Each practicum credit requires 24 service hours to an approved student organization.

Prerequisites: ( COMM190 )  
Corequisites: None

COMM203 Communication Practicum 3 (Min SH: 1, Max SH: 1)

Provides hands-on skill development related to the student's disciplinary interests within the Communication program. Students majoring in the Journalism, Electronic Media, and Public Relations and Advertising tracks in the Communications program will complete three credits of Practicum during their sophomore and junior years. Each practicum credit requires 45 service hours to an approved student organization.

Prerequisites: None  
Corequisites: None

COMM208 Communication Theory (Min SH: 3, Max SH: 3)

Surveys dominant theories in interpersonal, group, public, and mass communication. Emphasis is placed on both establishing frameworks that provide a contest for each theory and demonstrating how theories help illustrate the process of communication in applied settings.

Prerequisites: ( COMM100 ) OR ( COMM102 ) OR ( COMM103 ) OR ( COMM104 )  
Corequisites: None

COMM210 Gender and the Mass Media (Min SH: 3, Max SH: 3)

Explores issues and representational practices in the relationship among women, men, and the mass media. Students examine the historical, sociological, psychological, and cultural constructions of gender and the influence of the media upon these processes.

Prerequisites: None  
Corequisites: None

COMM215 Sports Broadcasting (Min SH: 3, Max SH: 3)

Examination of the industry, history, practice, ethics and theory of sports broadcasting. Particular attention given to sportscasts, play-by-play and color commentaries and production techniques.

Prerequisites: None  
Corequisites: None

COMM220 Oral Interpretation (Min SH: 3, Max SH: 3)

Designed to improve interpretation and delivery skills in the performance of literature, and to develop the critical listening skills needed to analyze and evaluate the performance of others. Students will complete individual and group work in the selection, analysis, preparation, and presentation of published literary works from prose, drama, and poetry.

Prerequisites: None  
Corequisites: None

COMM240 Online Public Relations (Min SH: 3, Max SH: 3)

Examines new media technologies used to publish public relations information on the Internet. Primary foci are gathering data, constructing multi-media public relations releases, and publishing on a website documents with embedded audio and video. Students gain practical experience in delivering information electronically.

Prerequisites: ( COMM190 ) OR ( JOUR190 )  
Corequisites: None

COMM290 Multimedia Journalism (Min SH: 3, Max SH: 3)

Helps students to identify, focus, and shape stories for a variety of media. Students will build upon news writing skills developed in COMM190 by concentrating on the use of news gathering techniques, including research and interviewing. Students will write, shoot, report and produce stories for print, online, audio and mobile.

Prerequisites: ( COMM190 )  
Corequisites: None

COMM292 Principles of Advertising (Min SH: 3, Max SH: 3)

An introduction to the organization of the consumer advertising industry, contemporary advertising practices, and the key steps involved in creating effective print, broadcast, and digital advertisements.

Prerequisites: None

Corequisites: None

COMM295 Radio Journalism (Min SH: 3, Max SH: 3)

Students will learn to record, edit and produce audio segments suitable for professional broadcast. Students will produce a weekly radio program.

Prerequisites: None

Corequisites: None

COMM300 Organizational Communication (Min SH: 3, Max SH: 3)

Designed to examine verbal and written communication that occurs in organizations. Course topics include informal and formal methods of communication, power bases, leadership and corporate communication flow.

Prerequisites: None

Corequisites: None

COMM301 Listening and Conflict Management (Min SH: 3, Max SH: 3)

Introduces students to concepts of listening and teaches them how to manage conflicts through a variety of effective methods. Students will develop skills involved in the listening process to increase their understanding of others' thoughts and feelings and gather accurate information. They will overcome barriers to effective listening and be able to provide more accurate responses to questions. Students study and broaden their own conflict management styles. Students learn the principles of mediation and negotiation.

Prerequisites: ( COMM102 ) OR ( COMM103 ) OR ( COMM104 )

Corequisites: None

COMM303 Argumentation and Debate (Min SH: 3, Max SH: 3)

Designed to improve analytical skills in construction of arguments, debating skills in defending those arguments, and critical listening skills needed to analyze and evaluate the arguments of others. Students will study thinking, argumentation, and their practical application to extemporaneous debate.

Prerequisites: ( COMM100 ) OR ( COMM102 )

Corequisites: None

COMM305 Television Criticism (Min SH: 3, Max SH: 3)

A survey of contemporary critical methods used to examine the aesthetic and sociological aspects of television. Extensive reading in critical literature is supplemented by analyses of selected television programs.

Prerequisites: None

Corequisites: None

COMM315 Corporate Video Production (Min SH: 3, Max SH: 3)

An introduction to the planning and production of video programs for businesses and nonprofit institutions. Through course materials and activities, students learn to use video as a promotional tool.

Prerequisites: None

Corequisites: None

#### COMM317 Radio Workshop (Min SH: 3, Max SH: 3)

A combination workshop-seminar that provides direct practical experience in radio production. This course will help students develop skills in producing commercials, PSAs, and audio narratives that include effectively integrated sound effects.

Prerequisites: None

Corequisites: None

#### COMM318 Video Workshop (Min SH: 3, Max SH: 3)

An introduction to the principles and skills associated with effective television performance. The course emphasizes those skills necessary for the practicing television journalist or on-camera host.

Prerequisites: None

Corequisites: None

#### COMM320 Business Communication (Min SH: 3, Max SH: 3)

Advanced practice in effective speaking and listening: reports and sales presentations, policy speeches, and conference leadership techniques employed in business and industry. Special attention is paid to the vital role management plays in developing, initiating and maintaining effective communication within the business/industrial setting.

Prerequisites: None

Corequisites: None

#### COMM328 Seminar-Humanities (Min SH: 3, Max SH: 3)

A content-based or situational approach to communication with emphasis on investigation, analysis, and critique. Topics might include, among others, Introduction to Film, Media Literacy, and Media and the Public.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

#### COMM330 Cultural Studies in Mass Communication (Min SH: 3, Max SH: 3)

An examination of issues concerning access and representation in the mass media. Of central interest are the practices of the media industries and their relationships with social change coalitions concerned about media representations of cultural identity including gender, race, ethnicity, class, and sexual orientation.

Prerequisites: ( COMM150 )

Corequisites: None

#### COMM333 Public Relations (Min SH: 3, Max SH: 3)

The nature and scope of public relations; the principles and techniques underlying the practice of public relations. Emphasis on the public relations practitioner as a communication specialist who explores and maintains channels of communication between organizations and the public.

Prerequisites: ( COMM102 ) OR ( COMM103 )  
Corequisites: None

COMM345 Advanced Public Speaking (Min SH: 3, Max SH: 3)

Advanced study of the theory and practice of oral discourse. Projects, assignments, and coursework designed to provide students with the opportunity to develop skills in oral communication beyond the level achieved in Fundamentals of Public Speaking.

Prerequisites: ( MCOM100 ) OR ( SPCH100 ) OR ( SPCH102 ) OR ( SPCH103 ) OR ( SPCH104 ) OR ( COMM100 ) OR ( COMM102 ) OR ( COMM103 ) OR ( COMM104 )  
Corequisites: None

COMM355 Environmental Journalism (Min SH: 3, Max SH: 3)

Presents the writing techniques students need to communicate simply and effectively for the media about science, environment, health and medical topics.

Prerequisites: ( COMM290 )  
Corequisites: None

COMM360 Communication Analysis (Min SH: 3, Max SH: 3)

This course is an analysis of the persuasion that impacts us all, often beneath the level of awareness. Students explore the process and purpose of analyzing messages that rely on verbal and nonverbal symbols that more or less intentionally influence social attitudes, values, beliefs, and actions. Students make connections between the rhetorical message and ideas such as quality, value, goodness, and rightness to ensure that the power of rhetoric is used competently.

Prerequisites: None  
Corequisites: None

COMM370 Topics in Communication (Min SH: 3, Max SH: 3)

A topical approach to applied communication practice designed to explore specialized knowledge and skills. Topics might include digital video editing, investigative journalism, special event planning, and social media strategies, among others.

Prerequisites: None  
Corequisites: None

COMM375 Persuasion (Min SH: 3, Max SH: 3)

A study of the factors related to attitude-change through oral communication. General theories of persuasion and an introduction to modern experimental research in the area included.

Prerequisites: ( COMM102 ) OR ( COMM103 ) OR ( COMM104 ) OR ( COMM202 )  
Corequisites: None

COMM390 Feature Writing (Min SH: 3, Max SH: 3)



Focus is on writing issue-oriented features and personality profiles. Attention given to structure, style, and content of features and to various ways to begin and end features. Also discussed are techniques of fiction writing that can be applied to features.

Prerequisites: ( COMM190 AND ENGL100 ) OR ( COMM190 AND HONR111 )

Corequisites: None

#### COMM391 Sports Writing (Min SH: 3, Max SH: 3)

A workshop providing direct practical experience in sports writing. Focus is on news gathering and writing techniques. Attention also given to ethics, business and financial aspects of sports, sports columns, investigative sports writing, sports features, and the history of sports writing.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

#### COMM393 News Editing (Min SH: 3, Max SH: 3)

Focus on editing copy and designing news pages for print and web. Attention given to the elements of typography, design, and computer usage in the news room.

Prerequisites: ( COMM190 )

Corequisites: None

#### COMM400 Communication Capstone Seminar (Min SH: 3, Max SH: 3)

Addresses the process of communication and communication issues as they relate to the public, and practical applications. Students will develop a professional portfolio and explore current issues affecting the industry, including matters of professional ethics and responsibility. Topics will be addressed from the perspective of the student's major emphasis.

Prerequisites: None

Corequisites: None

#### COMM405 Communication and Responsibility (Min SH: 3, Max SH: 3)

Designed to explore the appropriate and effective use of words and actions as they affect our communication and relationships. We discuss theories and standards by which our communicative acts are chosen and evaluated. We discuss responsible communicative choices we make in order to refine our various communicative paradigms. Finally, this course can help communicators deal with the consequences that result from using language and nonverbal communication competently and ethically. Restricted to students who have completed 60 credits or permission of the instructor.

Prerequisites: None

Corequisites: None

#### COMM450 Opinion Writing (Min SH: 3, Max SH: 3)

Writing opinion in the form of editorials and reviews. For editorial writing, the course will use a critical thinking model to analyze social issues; for review writing, it will focus on aesthetic issues in various art forms.

Prerequisites: ( COMM190 )

Corequisites: None

#### COMM488 Case Studies in Public Relations (Min SH: 3, Max SH: 3)

A case study approach to examine concrete public relations settings and situations that illustrate the possibilities and limitations of public relations effectiveness. Students explore the range of strategies that businesses, nonprofit organizations, and government agencies have adopted in varied circumstances and learn how to assess the practical and ethical implications of these strategic choices thus developing an effective public relations management perspective.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

COMM491 Propaganda and Public Opinion (Min SH: 3, Max SH: 3)

A detailed study of propaganda and public opinion from World War II to the present. Special emphasis is given to the media of propaganda. The course also focuses on propaganda strategies in industrial and non-industrial countries.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

COMM493 Online Journalism (Min SH: 3, Max SH: 3)

Exams new media technologies used to communicate newsworthy information over the Internet. Primary foci are gathering data and constructing new forms of news for online and mobile delivery. Students gain practical experience in managing and delivering information electronically.

Prerequisites: ( COMM190 )

Corequisites: None

COMM495 Public Relations Writing (Min SH: 3, Max SH: 3)

A writing-intensive course that allows students to develop skills in a variety of specialized public relations tasks targeting specific audiences. Topics might include press releases, media advisories, brochures, newsletters, and fundraising packages.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

COMM496 Advertising Campaign Development (Min SH: 3, Max SH: 3)

Acquaints students with the major phases involved in the development of an advertising campaign, from market research, creative copy writing and advertising design, to media placement and the testing of advertising effectiveness. Students examine and critique specific advertising campaigns and construct a campaign for a specific client as a major course project.

Prerequisites: ( COMM292 )

Corequisites: None

COMP119 Freshman Seminar: Introduction to Computing and Problem Solving (Min SH: 3, Max SH: 3)

Introduces students to the culture and mission of the university and to the field of Computer Science. Students are encouraged to explore the purpose of a college education within an academic discipline and are introduced to learning strategies and study skills for success in the major. Class discussion, active learning, common co-curricular activities, service and/or civic opportunities are incorporated to promote connection with fellow students, faculty, university and the community.

Prerequisites: None

Corequisites: None

COMP150 Introduction to Computers (Min SH: 3, Max SH: 3)

Provides an introduction to computing systems and their applications in modern society. It acquaints students with the organization and operation of computer systems. Students are introduced to a variety of applications such as word processing, spreadsheets, database management, and web development.

Prerequisites: None

Corequisites: None

#### COMP160 Programming 1 (Min SH: 3, Max SH: 3)

An overview of computer programming as a discipline and profession. Students study algorithm design and development using an object-oriented programming language. The emphasis is on Classes, Objects, and Methods, and topics include data types and storage, control structures, functions, arrays and files. This course introduces Object Oriented Design of Software and generic Integrated Development Environment.

Prerequisites: ( MATH112 ) OR ( MATH113 ) OR ( MATH141 )

Corequisites: None

#### COMP161 Programming 2 (Min SH: 3, Max SH: 3)

Continuation of Programming I providing intermediate to advanced programming techniques in the programming language introduced in Programming I. Emphasis is placed on object-oriented techniques and modular design as well as algorithm design involving library objects, advanced techniques for input and output (I/O) and exception handling, and elementary data structures.

Prerequisites: ( COMP160 )

Corequisites: None

#### COMP200 Fundamentals of Networking (Min SH: 3, Max SH: 3)

Introduces fundamentals of computer networks and the Internet. The TCP/IP protocol stack is introduced and concepts are discussed. Application layer protocols used for FTP, Web and email access, DNS etc are studied using network surveillance tools. Transport layer protocols TCP and UDP are investigated. Students learn the concept of IP address assignment, Router configuration and the physical layer. This course will introduce the students to the workings of the Internet Engineering Task Force and the standardization process.

Prerequisites: ( CISC150 ) OR ( COMP119 ) OR ( CISC119 ) OR ( COMP150 )

Corequisites: None

#### COMP205 Web-Based Application Development (Min SH: 3, Max SH: 3)

A survey of business application development using web-based technologies.

Prerequisites: ( COMP160 )

Corequisites: None

#### COMP212 Data and Computer Communications (Min SH: 3, Max SH: 3)

An introduction to data communications and networking including Open Systems Interconnection (OSI) protocol stacks. The course presents principles involved in data transmissions primarily with the exchange of data between two directly connected devices. The course also examines various transmission media. Key aspects of transmission such as signal encoding techniques, digital data communication techniques, data link control protocols, and multiplexing are discussed. The course introduces the basics of Wide Area Networks (WAN) and Local Area Networks, both standard and wireless (LAN and WLAN).

Prerequisites: ( COMP200 AND MATH112 )  
Corequisites: None

#### COMP220 Contemporary Issues in Computing (Min SH: 3, Max SH: 3)

An examination of the legal, ethical, and unethical issues that arise as a result of the use of computers, and the responsibilities that all computer users, including computer scientists, have with regard to these developments.

Prerequisites: ( COMP150 ) OR ( COMP160 )  
Corequisites: None

#### COMP225 Mobile Application Development (Min SH: 3, Max SH: 3)

Introduces the tools and techniques used to develop software applications for mobile devices and platforms. The course will examine topics such as user interface design, application portability, web protocols, software services, security and accessibility. The course will emphasize hands-on development using Google's Android platform.

Prerequisites: ( COMP161 )  
Corequisites: None

#### COMP230 Discrete Structures and Formal Languages (Min SH: 3, Max SH: 3)

Provides the theoretical computer science foundation to support the success of the computing student. This course includes a study of algorithms, graphs, trees, Boolean expressions, logic networks, and formal models of computation.

Prerequisites: ( COMP160 AND MATH107 )  
Corequisites: None

#### COMP235 Introduction to Data Science (Min SH: 3, Max SH: 3)

Introduces students to the fundamentals of data science. Students will model and analyze business problems using introductory descriptive, predictive, and prescriptive methods. Focus will be on using spreadsheets and statistical software when applying the different methods.

Prerequisites: ( MATH107 AND MATH180 )  
Corequisites: None

#### COMP240 Game Programming (Min SH: 3, Max SH: 3)

Provides a continuation of the concepts introduced in Programming I from the perspective of 2D game programming. Emphasis is placed on object-oriented techniques and modular design. Common algorithms used in game design are introduced, with a focus on utilizing the data structures and generics provided by the Java standard runtime library. Quality assurance, concurrent programming, event-driven programming, and graphical user interface programming are also covered.

Prerequisites: None  
Corequisites: None

COMP250 Advanced Microcomputer Applications (Min SH: 3, Max SH: 3)

Teaches students how to use personal productivity software (including but not limited to word processors, spreadsheets, and databases), to collect data, manage data, analyze data, solve problems and effectively communicate results.

Prerequisites: ( COMP150 AND MATH107 ) OR ( CISC150 AND MATH107 )

Corequisites: None

COMP255 Database Design (Min SH: 3, Max SH: 3)

Introduces students to database design at the enterprise level. Coverage includes the development of logical and conceptual models, translation into the internal model using Structured Query Language (SQL), and creation of database queries.

Prerequisites: ( CISC250 ) OR ( COMP160 ) OR ( COMP250 )

Corequisites: None

COMP260 Information Technology Project Management (Min SH: 3, Max SH: 3)

An introduction to fundamentals of project management using both concept and application. A generic Information Technology Project Methodology (ITPM) is used. The nine areas of the Project Management Institute's Project Management Body of Knowledge (PMBOK) are incorporated.

Prerequisites: ( COMP160 ) OR ( COMP255 )

Corequisites: None

COMP300 Data Structures and Algorithms (Min SH: 3, Max SH: 3)

Introduces the fundamental concepts of data structures, abstractions for organizing and processing data, and the algorithms that evolve from them. Topics include basic data structure types (including stacks, queues, linked lists, hash tables, trees, heaps and graphs) and their applications, algorithms for searching and sorting, the use of object and generic programming techniques for implementation, algorithm analysis and algorithm design strategies including recursion and greedy approaches.

Prerequisites: ( COMP161 )

Corequisites: None

COMP302 C/C++ for Systems Programming (Min SH: 3, Max SH: 3)

Introduces students to C and C++ and includes both procedural and object-oriented programming. Emphasis is placed on the use of Application Programming Interfaces (API) for use with systems, network, and graphics applications.

Prerequisites: ( COMP161 )

Corequisites: None

COMP304 Data and Computer Communications (Min SH: 3, Max SH: 3)

Introduces communications architectures used in business and services industries. The network is viewed from an end-to-end perspective as a system of cooperating functional blocks. The course covers Public Switched Telephone Network, Voice over IP, Wireless Wide Area Networks, Satellite communications and WAN/MAN technologies using MPLS. Security frameworks, network management, protocol vulnerability, optimization techniques, and capacity analysis are topics covered in this course.

Prerequisites: ( CISC200 ) OR ( COMP200 )

Corequisites: None

#### COMP305 Database Application Development (Min SH: 3, Max SH: 3)

An introduction to the development of software applications incorporating database management systems. Topics include the development of user and system requirements, analysis of work and data flow, database design and the application of Agile project management methods.

Prerequisites: ( COMP205 AND COMP255 )

Corequisites: None

#### COMP312 Introduction to Cyber Security (Min SH: 3, Max SH: 3)

An introduction to the cyber security principles, terminologies and practices used in the cyber-attacks including techniques for identifying, detecting and protection the cyber-attacks. Students will learn network and computer security, security technology, threat identification, detection and prevention mechanisms, and the legal and ethical issues associated with network security.

Prerequisites: ( COMP160 AND COMP200 )

Corequisites: None

#### COMP315 Network Programming (Min SH: 3, Max SH: 3)

Provides students the necessary skill-set to design and implement software that employ Internet Protocols at various layers of the standards-based stack. Students will be introduced to the socket Application Programmer Interface (API), the transport layer, raw sockets that allow network layer programming, and specialized libraries that makes packet creation and injection possible at the data link layer. These skills will prepare students to design and build prototypes operating at various layers of the protocol stack.

Prerequisites: ( CISC200 ) OR ( COMP200 )

Corequisites: None

#### COMP322 Database System Administration (Min SH: 3, Max SH: 3)

Introduces students to installing and managing a database management system. Topics include installation, performance monitoring and tuning, user management, security, physical storage and backup and recovery techniques.

Prerequisites: ( CISC255 AND COMP202 ) OR ( COMP202 AND COMP255 )

Corequisites: None

#### COMP325 Advanced SQL (Min SH: 3, Max SH: 3)

Introduces students to advanced topics in Structured Query Language (SQL) such as subqueries, correlated queries, query tuning, and programming languages extensions (Oracle's PL/SQL), as well as topics in data control language.

Prerequisites: ( COMP255 )

Corequisites: None

#### COMP335 Advanced Networking (Min SH: 3, Max SH: 3)

Offers advanced technical insights in networking protocols and standards. Students learn multiple scheduling algorithms and MAC (Media Access Control) layer protocols in detail. Routing protocols and algorithms are discussed, analyzed, and evaluated in detail. Network protocols and supporting services are discussed and implemented in detail. Transport layer protocols and associated services are discussed and practiced in the labs.

Prerequisites: ( COMP200 AND COMP212 )  
Corequisites: None

#### COMP340 Data Mining (Min SH: 3, Max SH: 3)

Introduces students to methods used to prepare, analyze, and extract useful information from large data sets. Topics include data cleansing; data warehouses; building models using data mining techniques such as association, clustering, classification, and regression; and data visualization.

Prerequisites: ( COMP235 AND COMP255 )  
Corequisites: None

#### COMP345 Advanced Programming for Data Science (Min SH: 3, Max SH: 3)

Provides an in-depth course in programming applications in data science using programming languages appropriate for data analysis and scientific computing with large data sets such as R or Python.

Prerequisites: ( COMP160 AND MATH180 ) OR ( COMP160 AND MATH141 ) OR ( COMP245 AND MATH180 ) OR ( COMP245 AND MATH141 )  
Corequisites: None

#### COMP402 Algorithm Analysis and Design (Min SH: 3, Max SH: 3)

Provides a survey of classic and modern computer algorithms, demonstrates techniques to analyze algorithm performance and illustrates the design methodologies used to develop computer algorithms.

Prerequisites: ( COMP300 AND MATH205 AND MATH211 )  
Corequisites: None

#### COMP405 Software Engineering (Min SH: 3, Max SH: 3)

An introduction to the engineering principles and practices used in the process of developing usable, reliable, efficient, and maintainable software systems. Students will learn both classic and agile software development models and the process used in these models including specification, design, prototyping, implementation, integration, verification and validation.

Prerequisites: ( COMP300 )  
Corequisites: None

#### COMP407 Network and Security Systems Administration (Min SH: 3, Max SH: 3)

Imparts skills necessary for configuring, optimizing and administering computer networks and associated security mechanisms. Course includes the configuration of local area networks (LAN), wide area networks (WAN), wireless networks, network management protocols and security frameworks. The course provides a hands-on approach to using open source networking and security software for managing administration, networking, and wireless infrastructures.

Prerequisites: ( COMP308 AND COMP312 AND COMP335 )  
Corequisites: None

#### COMP410 Machine Learning and Robotics (Min SH: 3, Max SH: 3)

Introduces algorithms that allow computers to learn and improve based on the analysis of empirical data gained from experience. Machine learning algorithms will be developed and applied in areas such as gaming and robotics.

Prerequisites: ( COMP300 )  
Corequisites: None

#### COMP412 Network Security (Min SH: 3, Max SH: 3)

Introduces the concepts of network security and its applications and standards. This course emphasizes the operation of secure frameworks, system level security and the use of secure protocols. Topics include cryptography; secure applications and secret key management frameworks; intrusion detection; legal and ethical issues, and the dynamics of malicious software. An overview of open standards in this area is also included in this course.

Prerequisites: ( COMP308 AND COMP312 AND COMP335 )  
Corequisites: None

#### COMP415 Structure Programming Languages (Min SH: 3, Max SH: 3)

Study of language design, language processors, syntax, and semantics. What makes a language good or bad and similarities in different languages? Brief introduction to a variety of high-level languages, such as Pascal, C, SNOBOL, PROLOG, ADA, LISP, MODULA-2, which contain advanced features.

Prerequisites: ( COMP300 )  
Corequisites: None

#### COMP425 Advanced Database Architectures (Min SH: 3, Max SH: 3)

Provides an in-depth analysis of the various forms of database management system (DBMS) architectures in use today. Models include standard systems such as relational and object-oriented DBMS as well as the newest so-called NoSQL or New SQL architectures including Key-Value, Document, Column-Family and Graph DBMS.

Prerequisites: ( COMP255 )  
Corequisites: None



COMP435 Next Generation Networks and Services (Min SH: 3, Max SH: 3)

Introduces Next Generation Networking and Services to the students. This course offers an introduction to system architecture, components and system functionalities of Software Defined Networking (SDN), Network Function Virtualization (NFV), Cloud Computing, Internet of Things (IoT).

Prerequisites: ( COMP308 AND COMP335 )

Corequisites: None

COMP465 Data Base Management Systems (Min SH: 3, Max SH: 3)

An examination of the various levels of organization of data base systems including the hardware level (state-of-art media, devices, channels, controllers), the physical representation of data, the logical organization of data and the overall structure of large scale information processing systems. A survey of commercial data management products. Applications to management planning and control are included.

Prerequisites: ( COMP300 )

Corequisites: None

COMP475 Senior Capstone Seminar (Min SH: 3, Max SH: 3)

A study of major concepts and topics in Computer Science and Information Systems that encompass the student's concentration of study. As a capstone seminar, this course is an integrating experience that requires students to apply knowledge and skills gained from previous coursework in both the core and their concentration.

Prerequisites: ( COMP200 AND COMP230 AND COMP255 )

Corequisites: None

COMP480 Special Problems (Min SH: 1, Max SH: 3)

An in-depth investigation of aspects of computer science. Topics to be determined prior to the semester in which the course is offered.

Prerequisites: ( COMP161 )

Corequisites: None

CRJS102 Introduction to Criminal Justice (Min SH: 3, Max SH: 3)

The history, organization, and functions of various components of the criminal justice system. Focuses on the interrelationships among law enforcement agencies, prosecution, courts, correctional processes and institutions, probation, parole, juvenile justice, and other officials and their agencies. Critical thinking is applied to the system and its practices.

Prerequisites: None

Corequisites: None

CRJS119 Freshman Seminar (Min SH: 1, Max SH: 1)

Introduces students to the culture and mission of the University, as well as the University services available to students. Students are also exposed to the Criminal Justice major, with specific focus on required and elective coursework, internship options, and early career exploration. Students will engage in active learning and the development of effective study skills.

Prerequisites: None

Corequisites: None

CRJS205 Drug Abuse (Min SH: 3, Max SH: 3)

An introduction to the use and abuse of drugs in America. The history of such use and abuse, the pharmacology and legalization or criminalization of such drugs, the social response to drug use and abuse, effects of drugs on the body and the role of law enforcement are considered.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS210 Diversity in Criminal Justice (Min SH: 3, Max SH: 3)

Encompasses a critical examination of the issues and problems relating to the administration of justice in a culturally diverse society. Emphasis is placed on the study of gender, race, class, sexual orientation, and ethnicity and the respective challenges these diverse characteristics pose in the various agencies of the criminal justice system. Emphasis is also placed on the opportunities and challenges of providing criminal justice services within a multicultural society. Theoretical perspectives will be included.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS215 American Gangs (Min SH: 3, Max SH: 3)

A study of the social and cultural history of American gangs including the influence and relationship between national, regional and local gangs. This course includes evaluation of gang identification and membership. Emphasis is placed on growing concern within the criminal justice community of the influence and spread of youth gangs and growing hybridization and migration of gangs in terms of location, member diversity and organization. Criminological theories of youth gang involvement will also be addressed.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS217 Women and Crime (Min SH: 3, Max SH: 3)

A study of the nature and extent of issues relating to women and criminal justice. The content includes a focus on crimes committed by women, theories of female criminality, processing of women offenders through the criminal justice system, the response of police and court officials to women as victims of crime, and opportunities for women as employees in criminal justice agencies.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS220 Introduction to Conservation Law Enforcement (Min SH: 3, Max SH: 3)

An introduction to the theory and practice of Conservation Law Enforcement. An overview of the conservation law enforcement officer's role and duties in enhancing, protecting, and conserving natural areas and wildlife in the United States, with special focus on Pennsylvania, is provided. Attention is given to statutory provisions and regulations pertaining to natural resource protection and conservation. Focus is given to unique types of training requirements and risks inherent in this profession.

Prerequisites: None

Corequisites: (SOCI101 ) OR (CRJS102 )

CRJS240 Law Enforcement (Min SH: 3, Max SH: 3)

Examines the philosophical and historical background, Constitutional limitations, objectives, and processes in the enforcement of law. The nature and responsibilities of law enforcement are discussed and evaluated, including police accountability, civil liability, selection process, stress, and multicultural issues. Critical thinking and ethical decision making in law enforcement situations are developed through case analysis, exercises and simulations.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS260 Criminal Law (Min SH: 3, Max SH: 3)

Focuses on criminal law and practical application of the law. Specific emphasis on the parameters of criminal law, general principles of criminal liability, defenses to criminal liability, and definition of the different types of criminal offenses. The course emphasizes practical application of the law.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS290 World Criminal Justice Systems (Min SH: 3, Max SH: 3)

Considers issues related to criminal justice from the perspective of a number of nations. The course is intended to enable students to develop a creative approach to American criminal justice by seeing these issues are dealt with in other cultures.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS301 Juvenile Justice (Min SH: 3, Max SH: 3)

A study of major components of the juvenile justice system in the United States. Emphasis is placed on major components of the juvenile justice system including law enforcement, prosecution, courts, and corrections. Additional emphasis is placed on historical origins and philosophy of juvenile justice and evolution of reforms in juvenile justice. An overview of the legal framework in which the juvenile justice system operates highlights differences between adult and juvenile case processing.

Prerequisites: ( CRJS102 AND SOCI101 )

Corequisites: None

CRJS302 Criminology (Min SH: 3, Max SH: 3)

An examination of the development of criminological theory including historical influence, underlying premises and corresponding social responses to crime. Students will apply and analyze formal criminological theory in the examination and explanation of criminal behavior. Students will also examine the role that criminological theory plays in social science research and public policy development.

Prerequisites: ( CRJS102 AND SOCI101 )

Corequisites: None

CRJS304 Criminal Justice Ethics (Min SH: 3, Max SH: 3)

An introduction to the application of ethical theories relative to the practice of professionals in the criminal justice system. The course is designed to examine prominent moral issues faced by criminal justice professionals. The student will be required to conduct detailed examinations and evaluations of ethical issues and to apply various ethical theories, codes, and canons to arrive at moral decisions.

Prerequisites: ( CRJS102 )  
Corequisites: None

#### CRJS305 Corrections (Min SH: 3, Max SH: 3)

Studies the major components of the correctional system including prisons, jails, and community corrections. Emphasis is placed on understanding the history, use, and philosophy of punishment, including an examination of sentencing models for criminal offenders. Additionally, students will examine methods of treatment, supervision, management, and reentry of offenders. Correctional management, supervision, and treatment of special offender populations is also emphasized.

Prerequisites: ( CRJS102 AND SOCI101 )  
Corequisites: None

#### CRJS309 Environmental Justice (Min SH: 3, Max SH: 3)

Explores prominent contemporary environmental issues. Engages students in analysis of various laws and policies developed to neutralize key environmental threats, including policy and statutes related to the following: natural resource management, clean air and water, and waste disposal. Specific attention is given to development and analysis of environmental laws and policy.

Prerequisites: ( CRJS102 )  
Corequisites: None

#### CRJS310 Criminal Investigation (Min SH: 3, Max SH: 3)

Introduces students to the fundamental principles and concepts of the criminal investigative process. This course applies the procedures used in criminal investigations, including problem solving and scientific approaches to solving crimes. It is both a didactic (classroom lecture) and experiential (outdoors/hands on experience) with emphasis placed on the fundamental and advanced features of investigations.

Prerequisites: ( CRJS102 AND CRJS240 )  
Corequisites: None

#### CRJS315 Terrorism in the 21st Century (Min SH: 3, Max SH: 3)

A study of the origin and history of terrorism and its conceptual and theoretical framework in the world. This course provides an emphasis on the pre-1980's historical development of the phenomenon of terrorism and the role that this history plays in terrorism today. An overview and analysis of the major active modern terrorist groups and their respective philosophies are presented.

Prerequisites: ( CRJS102 )  
Corequisites: None

#### CRJS325 Community Corrections (Min SH: 3, Max SH: 3)

A study of community-based corrections to include offenders under legal restraint in community-based settings. The course examines the practices and programs used to supervise justice-involved individuals including pretrial diversion, restorative justice models, risk assessment and treatment programming, intermediate sanctions, and offender reentry programs. Special offender populations will also be discussed.

Prerequisites: ( CRJS102 )  
Corequisites: None

CRJS330 World Criminal Justice Systems (Min SH: 3, Max SH: 3)

A study of the issues related to criminal justice from the perspective of a number of nations. The course is intended to enable students to develop a creative approach to American criminal justice by examining how issues such as policing, courts, and corrections are dealt with in other countries and cultures.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS340 Police Management and Supervision (Min SH: 3, Max SH: 3)

Provides an understanding of the principles and practices of police management and supervision. It includes an examination of the functions and roles of supervisors, interpersonal communications, psychological aspects of supervision, discipline, handling complaints, and dealing with staffing issues.

Prerequisites: ( CRJS102 )

Corequisites: (CRJS240 )

CRJS360 Criminal Procedure (Min SH: 3, Max SH: 3)

A consideration of the procedures the criminal justice professional must use in implementing the criminal law. The course primarily focuses on the Fourth, Fifth, Sixth, and Fourteenth Amendments to the United States Constitution. The course examines issues related to the following: search and seizure, warrant requirements, right to counsel, pre and post-trial proceedings, and relevant case law.

Prerequisites: ( CRJS102 )

Corequisites: None

CRJS425 Senior Seminar in Criminal Justice (Min SH: 3, Max SH: 3)

This course is intended to help students consolidate their learning in criminal justice and related areas and prepare for the world of work. Major concepts from throughout the criminal justice program are reconsidered and integrated. Major emphases include integrating theory, research and the application of findings to understanding the functioning of various functions of the criminal justice system. The process of obtaining employment in the criminal justice system is also a major emphasis of this course.

Prerequisites: None

Corequisites: None

CRJS490 Criminal Justice Research (Min SH: 3, Max SH: 3)

A study of research methods used in criminal justice including quantitative and qualitative paradigms. This course includes an evaluation of the scientific method; sampling; reliability; validity; and the relationship of statistics, theory, and research. Emphasis will be placed on the use of various types of research in the criminal justice discipline.

Prerequisites: ( CRJS302 AND MATH107 )

Corequisites: None

CVED200 Introduction to Deliberative Public Learning (Min SH: 3, Max SH: 3)

Students are introduced to the theory and practice of deliberative citizen discourse in a democracy. The course links study of theory with participation in actual public forums. Principles of deliberative discourse are studied in relation to theories of democracy and then applied in public forums. Students become effective moderators in public deliberative forums and

interpreters of results. This course also prepares students for more advanced study in the theory and practice of civic engagement and public scholarship.

Prerequisites: None

Corequisites: None

#### ECED119 First Year Seminar for Education Students (Min SH: 1, Max SH: 1)

Designed to embed education program requirements into a required course and to support student achievement of Education program requirements. This course also reviews campus services and certification requirements, provides students with an overview of teacher education at Lock Haven University and helps them develop effective learning skills for college.

Prerequisites: None

Corequisites: None

#### ECED150 Diversity in Early Childhood Education (Min SH: 3, Max SH: 3)

An introduction to diversity, multicultural and global education. Students will explore their personal attitudes about global and cultural diversity impacting PreK-Grade 4 education. They will consider their own family history and consider how it may influence their effectiveness as teachers of children from international and diverse backgrounds. They will be introduced to effective instructional strategies and resources for global and multicultural education from birth through 4th grade.

Prerequisites: ( PSYC102 )

Corequisites: None

#### ECED200 Observing and Assessing Young Children (Min SH: 3, Max SH: 3)

An introduction to observing, documenting and assessing young children, aged birth-five years, using formal and informal assessment tools across all areas of development. This course requires 20 hours of observation in a preschool/preprimary setting. The content of this course relates to standards of the National Association for the Education of Young Children (NAEYC), the Pennsylvania Department of Education (PDE) and the Interstate New Teacher Assessment and Support Consortium (INTASC).

Prerequisites: None

Corequisites: None

#### ECED204 Primary Reading (Min SH: 3, Max SH: 3)

An introduction to theories and methods for helping primary grade children acquire reading and writing skills. The focus of this course is to provide students with information specific to children from 1st through 4th grade. Students will learn to: assess, instruct, and support primary children's reading and writing development; write appropriate activity plans; identify and choose appropriate literature for primary children; and integrate children's reading and writing development with children's literature across multiple curricular areas. Students will complete 10 hours of observation in a primary school setting.

Prerequisites: ( ECED212 )

Corequisites: None

#### ECED212 Language Development in Early Childhood (Min SH: 3, Max SH: 3)

Designed to provide a foundation of basic knowledge regarding language development in young children, including dual language learners/English language learners. Observation of and participation with young children is required.

Prerequisites: ( ECED100 AND PSYC111 ) OR ( ECED100 AND PSYC102 )

Corequisites: None

ECED220 Emerging Mathematics and Science for Children Birth through Age 4 (Min SH: 3, Max SH: 3)

Addresses the acquisition of knowledge and skills related to the development of mathematics and science concepts for preprimary children.

Prerequisites: ( ECED100 )

Corequisites: None

ECED225 Beginning Literacy (Min SH: 3, Max SH: 3)

An introduction to theories and methods for helping young children acquire literacy skills. The focus of this course is to provide students with information specific to children from Pre K through Kindergarten. Students will learn to assess and support young children's literacy, write appropriate activity plans, identify and choose appropriate picturebook literature for young children, and integrate children's literacy skills development and children's picturebook literature with multiple curricular areas.

Prerequisites: ( PSYC102 ) OR ( PSYC111 )

Corequisites: None

ECED240 Topics in PreK-4/Early Childhood Education (Min SH: 2, Max SH: 2)

Designed to review the PreK-4/Early Childhood Education program requirements for the developing portfolio. This Topics course will include an opportunity for students to observe children in diverse populations, discuss special topics in the field, and complete a framework for the developing portfolio.

Prerequisites: None

Corequisites: None

ECED325 Assessment and Evaluation in Early Childhood Education (Min SH: 3, Max SH: 3)

Designed to address the acquisition of knowledge and skills related to the development, as well as the interpretation, of assessments used in Early Childhood classrooms.

Prerequisites: None

Corequisites: None

ECED326 Child Guidance and Classroom Management (Min SH: 3, Max SH: 3)

An introduction to child guidance, communication skills and classroom management techniques that promote positive relationships and learning in settings birth through fourth grade.

Prerequisites: None

Corequisites: None

ECED331 Planning and Administering Early Childhood Programs: Fostering Partnerships w/Fam and Communts (Min SH: 3, Max SH: 3)

Designed to exam the principles of effective program design and administration appropriate for infants to kindergarten in a variety of settings. Content includes child development theory, educational practice and governmental regulations.

Prerequisites: ECED230

Corequisites: None

ECED332 Developing Creative Expression (Min SH: 3, Max SH: 3)

This junior level course is designed to examine the content and methods available to facilitate children's expression through art, music and dramatic play within childcare, educational and academic settings.

Prerequisites: None

Corequisites: None

ECED340 Creating Healthy Environments for Infants and Toddlers (Min SH: 3, Max SH: 3)

Designed to examine the content and methods of environments for infant and toddlers in caring, educational, academic and family/home and play settings.

Prerequisites: None

Corequisites: None

ECED415 Integrating Curriculum and Instruction (Min SH: 3, Max SH: 3)

Designed to assist the students in synthesizing theory and content from a variety of pre-professional courses through actual teaching of preprimary and primary grade children. Students plan, teach, analyze, and reflect on segments of instruction under the supervision of college instructors in area school classrooms.

Prerequisites: None

Corequisites: None

ECED432 Language Arts and Reading for Early Childhood (Min SH: 3, Max SH: 3)

Designed to examine the content and methods of language arts and reading for young children in an academic setting.

Prerequisites: None

Corequisites: None

ECED433 Math Methods for Grades K-4 (Min SH: 3, Max SH: 3)

Examines the content and methods of math education for young children in primary settings.

Prerequisites: None

Corequisites: None

ECED436 Social Studies Methods for K-4: Early Childhood Professional Semester (Min SH: 3, Max SH: 3)

Designed to examine the content and methods of social studies education for K-4 classroom settings. This course helps students develop the concepts and skills needed for effective instruction in all aspects of social studies for young children.

Prerequisites: None

Corequisites: None

ECED493 Student Teaching and Practicum Early Childhood 1 (Min SH: 6, Max SH: 6)

The capstone experience for pre-service teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.



Prerequisites: None  
Corequisites: None

#### ECED494 Student Teaching and Practicum Early Childhood 2 (Min SH: 6, Max SH: 6)

The capstone experience for pre-service teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None  
Corequisites: None

#### ECON102 Principles of Macroeconomics (Min SH: 3, Max SH: 3)

An introduction to the study of the nation's economy as a whole, which looks at the aggregate behavior of consumers, business, and the government. It focuses on the issues of inflation, unemployment, and economic growth. The course explores why and how economies grow, economic fluctuations, the banking system, fiscal management, and how macroeconomic policy is implemented under different circumstances.

Prerequisites: ( MATH100 ) OR ( MATH112 )  
Corequisites: None

#### ECON103 Principles of Microeconomics (Min SH: 3, Max SH: 3)

An introduction to the study of microeconomic analysis, which examines the basic tools and concepts of consumer behavior, business decision-making, and the role of government. This course focuses on standard economic analysis of the firm as it relates to price decisions, cost, output, and revenue. The course examines real world problems in terms of consumer behavior, market structure, labor, and income distribution.

Prerequisites: ( MATH100 ) OR ( MATH112 )  
Corequisites: None

#### ECON310 Intermediate Macroeconomics (Min SH: 3, Max SH: 3)

An intermediate study of economy in aggregate terms with analysis of national income, production, inflation, and employment. It also examines different economic models for both the short and long-run, and what these models imply about economic growth, monetary, fiscal and income policies for achieving economic stability.

Prerequisites: ( ECON101 ) OR ( ECON102 )  
Corequisites: None

#### ECON315 Intermediate Microeconomics (Min SH: 3, Max SH: 3)

Provides an in-depth examination of how to model consumption and production decisions, and their interactions in the markets. Particular forms of market failure are analyzed together with possible government intervention on those markets, as well as the effect of such interventions on the decision of the firm.

Prerequisites: ( ECON101 ) OR ( ECON103 )  
Corequisites: None

#### ECON328 Seminar-Social Science (Min SH: 3, Max SH: 3)

An in-depth study of aspects of economics and topics of current interest. Topics will be determined prior to the semester in which the course is offered and can differ for each course offering. Students may take this course more than once if the topic differs.

Prerequisites: ( ECON101 ) OR ( ECON102 ) OR ( ECON103 )  
Corequisites: None

#### ECON330 Economic Development (Min SH: 3, Max SH: 3)

Provides a fundamental understanding of the process of international economic development. This course takes a comprehensive approach to examine topics such as economic geography, economic growth, industrialization, education, administrative and institutional governance, and how technology affects development. The course presents regional comparative development efforts, economic and historical development patterns, economic policy reform, foreign aid, and issues related to trade.

Prerequisites: ( ECON101 ) OR ( ECON102 )  
Corequisites: None

#### ECON340 Money and Banking (Min SH: 3, Max SH: 3)

An examination of the role of money and credit in the U.S. economy. The course gives an overview of financial instruments, markets, and intermediaries along with the evolution and regulation of the financial system. Attention is given to bank lending and the money supply process as controlled by the Federal Reserve System. Formulation of monetary policy is studied as are alternative monetary theories and international aspects of banking and finance.

Prerequisites: ( ECON102 )  
Corequisites: None

#### ECON350 Comparative Economic Systems (Min SH: 3, Max SH: 3)

A comparison of the market economy, and the socialist and centrally administered economy. The content emphasizes the capitalist systems of the world and the economic systems in transition from being centrally planned to market directed. It also covers the collapse of communism and the emergence of less developed economies.

Prerequisites: ( ECON101 ) OR ( ECON102 )  
Corequisites: None

#### ECON355 International Trade and Finance (Min SH: 3, Max SH: 3)

An examination of international economics, which is concerned with the trade among nations. Topics include, but are not limited to, trade theory, trade restrictions such as tariffs and non-tariff barriers, trade policies of less developed countries, the determination of exchange rates, international monetary problems, international organizations and trade agreements, and issues related to U.S. commercial policies.

Prerequisites: ( ECON101 ) OR ( ECON102 )  
Corequisites: None

#### ECON410 Econometrics (Min SH: 3, Max SH: 3)

An introduction to empirical research of economics. Statistical and mathematical techniques are introduced and examined. Common econometric problems are identified and corrected. Application of econometric models is emphasized.

Prerequisites: ( ECON102 AND ECON103 AND MATH107 )  
Corequisites: None

EDUC119 First Year Seminar for Education Students (Min SH: 1, Max SH: 1)

Designed to embed education program requirements into a required course and to support student achievement of Education program requirements. Must be taken by all Elementary Education majors.

Prerequisites: None

Corequisites: None

EDUC212 Classroom Management in the Middle and Secondary School Setting (Min SH: 2, Max SH: 2)

Examines behaviors that characterize this age group and helps teachers understand why adolescents behave as they do. Included are a variety of teaching methods and activities to stimulate and reinforce desirable behavior, effectively respond to undesirable behavior, and extinguish inappropriate behavior.

Prerequisites: None

Corequisites: None

EDUC330 Classroom Management in the Elementary and Middle School Setting (Min SH: 3, Max SH: 3)

Offers a holistic view beginning with a variety of methods and activities for helping teachers build positive learning environments (a community of learners), improve relations in the classroom (a broader community), and cope with challenging behaviors and special abilities. The teacher is viewed as a model and facilitator, a supervisor of instruction which is called to fashion environments that invite exploration, inquiry, and positive self-concepts by drawing from research in psychology and sociology.

Prerequisites: EDUC204

Corequisites: None

EDUC335 Assessment and Differentiation (Min SH: 3, Max SH: 3)

An investigation into the design and evaluation of assessments for student performance in the elementary classroom. Differentiated instruction and assessment will be addressed for K-8 learners including English Language Learners (ELL).

Prerequisites: None

Corequisites: None

EDUC340 Classroom Management (Min SH: 3, Max SH: 3)

Classroom teachers are struggling to cope with an increasing number of student behavioral problems. This course will present strategies designed to stop discipline problems before they start. Building a positive learning environment, techniques for improving teacher-pupil relationships, and coping with disruptive behaviors will be studied. Based on sound, carefully researched theory, the course will offer a variety of methods and activities designed to help teachers implement management strategies.

Prerequisites: None

Corequisites: None

EDUC346 Disciplinary Literacy (Min SH: 3, Max SH: 3)

A study of the process of how to teach reading and writing to grades 3-8 learners in all curricular areas. Focus will be on the demands that readers face when reading disciplinary-specific texts.

Prerequisites: None

Corequisites: None

#### EDUC472 Literacy and Language Arts: Elementary Professional Semester (Min SH: 3, Max SH: 3)

Taken only as a part of the Elementary Professional Semester. Designed to place emphasis on mastering methods, strategies and techniques and on using materials appropriately for a balanced literacy program. The course focuses on instruction and evaluation of writing, reading, speaking, and listening abilities plus the integration of these developing abilities across curriculums, standards and instructional designs. Current literacy policies, research based practices, and educational curriculums are stressed. This course is open to students who meet requirements for enrollment in the Elementary Professional Semester.

Prerequisites: READ300

Corequisites: None

#### EDUC473 Social Studies Methods: Elementary Professional Semester (Min SH: 3, Max SH: 3)

Taken only as part of the Elementary Professional Semester. Development of concepts and skills for effective instruction in all aspects of the Social Studies. Interdisciplinary unit studies are stressed. Students prepare lesson and unit plans, work in teams, present demonstration lessons to peers and evaluate instructional materials. Students learn how to access reference literature and teaching materials, locate experts and other resource personnel for classroom activities as well as for activities outside of the classroom.

Prerequisites: None

Corequisites: None

#### EDUC474 Science Methods: Elementary Professional Semester (Min SH: 3, Max SH: 3)

Students practice techniques for teaching science to elementary children. The use of discovery learning is stressed. Science is treated more as a process than as a body of knowledge. Commercially produced science programs are reviewed; students create hands-on files, review and react in writing to science readings, create a science project and present it to children, and students prepare lessons to present to peers and children from the local schools. The use of manipulatives is required. Students study for, prepare and teach a coordinated set of activities in environmental studies including field trips to the University's conference center or other outdoor facilities.

Prerequisites: None

Corequisites: None

#### EDUC475 Teaching of Mathematics in the Elementary School: Elementary Professional Semester (Min SH: 3, Max SH: 3)

Students learn techniques for teaching mathematics to elementary students according to the National Council of Teachers of Mathematics (NCTM) Process Standards and the PA State Math Standards. Emphasis is given to appropriate progression from the concrete to the abstract in all learning. Use of manipulatives is required. The use of strategies to make content accessible to ALL students is a priority. Much time is spent cultivating a positive attitude toward mathematics. Discovery learning, interdisciplinary study and the use of technology are woven into the course. Scheduled concurrently with subject matter methods and Clinical Field Experience.

Prerequisites: None

Corequisites: None

#### EDUC476 Creating Classroom Environments: Elementary Professional Semester (Min SH: 2, Max SH: 2)

Provides specific information and strategies for organizing, planning and implementing instruction in a classroom and creating a positive, productive atmosphere for learning. Questioning, listening and management techniques are stressed. Methods for helping learners become self-disciplined are emphasized and techniques for dealing with unacceptable behavior are considered in depth. Since this course is usually taken concurrently with other courses in teaching methods and with a required field experience course, all topics are consciously integrated with those of the other courses. In addition to mastering the various techniques considered, students are expected to develop a philosophical basis for creating an ordered classroom.

Prerequisites: None

Corequisites: None

#### EDUC477 Clinical Field Experiences: Elementary Professional Semester (Min SH: 2, Max SH: 2)

This laboratory course assists the student in synthesizing theory and content from a variety of a pre-professional courses and requires students to put this theory and content into practice during actual teaching of elementary school children. Students plan, teach and analyze segments of instruction under the supervision of college instructors in area school classrooms.

Prerequisites: None

Corequisites: None

#### EDUC478 Intro Educational Computing: Elementary Professional Semester (Min SH: 2, Max SH: 2)

Provides basic skills in the uses of microcomputers in educational settings and background about computer technology. Courseware in various instructional subject areas is examined and evaluated. Several modes for Computer-Aided Learning are demonstrated and experienced. Students receive an introduction to computer terminology, system components, operation, general uses of computers and resulting implications for society.

Prerequisites: None

Corequisites: None

#### EDUC494 Student Teaching and Professional Practicum: Elementary 2 (Min SH: 6, Max SH: 6)

The capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

#### ELML119 First Year Seminar for Elementary and Middle Level Education (Min SH: 1, Max SH: 1)

Designed to provide an introduction to the culture and the mission of the university and an overview of elementary and middle level education (ELML). Students will be introduced to basic college learning and study skills and will outline program requirements to support student achievement within the ELML Program. The students will be required to observe/participate in Elementary/Middle schools for 20 hours in addition to class hours.

Prerequisites: None

Corequisites: None

#### ELML200 Literature for Elementary and Middle Level Learners (Min SH: 2, Max SH: 2)

Designed to provide an introductory exploration of Language Arts methods in the elementary/middle level grades through major literary genres and authors. The students will be required to observe/participate in the schools for 10 hours in addition to class hours.

Prerequisites: None  
Corequisites: None

#### ELML210 Learning Theory for Middle Level Learners (Min SH: 3, Max SH: 3)

Designed to give students a foundation of learning theories and processes for elementary and middle-level learners. Emphasis will be given to effective research-based practices, learning theories, curriculum, and the development of instructional materials. The students are required to complete 20 hours of observation in the schools.

Prerequisites: None  
Corequisites: None

#### ELML250 Assessment and Differentiation in the 4-8 Classroom (Min SH: 3, Max SH: 3)

An investigation into the design and evaluation of assessments for student performance in the elementary/middle level classroom. Differentiated instruction and assessment will be addressed for middle level learners including English Language Learners (ELL). Ten hours of observation will be used to view middle level adapted assessment practices include PA Alternate System of Assessment (PASA) administration in addition to class.

Prerequisites: ( ELML210 )  
Corequisites: None

#### ELML320 Science for the Elementary and Middle Level Learner (Min SH: 3, Max SH: 3)

For preprofessional educators to synthesize all of the college level coursework to date into the proper framework for teaching science to students in grades four to eight. This course will deal with the physical science, life science, and earth and space science areas. Students will engage in personal scientific investigation.

Prerequisites: None  
Corequisites: None

#### ELML321 Language Arts for the Elementary and Middle Level Learner (Min SH: 3, Max SH: 3)

Focuses on content, methods, and demonstration of proficiency in the literacy areas of reading, written composition, oral communications, grammar, and spelling/vocabulary. Students are expected to develop materials and lesson plans that are appropriate to teach language arts in grades 4 through 8.

Prerequisites: None  
Corequisites: None

#### ELML323 Social Sciences for the Elementary and Middle Level Learner (Min SH: 3, Max SH: 3)

An examination of the content of social studies curriculum for the upper elementary and middle level learner and how it is integrated into the overall curriculum. Students are expected to develop materials, create lesson plans, and integrate social studies into the middle school curriculum. A team approach with other teachers and clinical experience in the schools examining "best practice" will be employed.

Prerequisites: None  
Corequisites: None

#### ELML330 Language Acquisition Theory and Writing Instruction (Min SH: 3, Max SH: 3)

Designed to address the needs of pre-service teachers for literacy development through writing for students learning English, especially as a second language. Emphasis will be given to writing competencies, effective research based practices, theories of language acquisition, and challenges faced by English Language Learners. Students will participate 10 hours in the schools. This course is aligned with the Pennsylvania Department of Education requirements addressed in PA Chapter 49-2.

Prerequisites: None

Corequisites: None

#### ELML402 Effective Instructional Literary Strategies for Diverse Learners (Min SH: 3, Max SH: 3)

Designed to prepare pre-service Elementary/Middle Level teachers to develop and present literacy instruction for culturally diverse learners. Emphasis will be on literacy components, research-based practice, and challenges that culturally diverse learners face in learning how to read and write. It includes 10 field experience hours in the schools. This course is aligned with the PDE requirements addressed in PA Chapter 49-2 and meets Standards for the Association of Middle Level Education (AMLE).

Prerequisites: None

Corequisites: None

#### ELML405 Interventions and Classroom Management Strategies Elementary and Middle Level Learners (Min SH: 3, Max SH: 3)

A holistic view of methods and activities for helping teachers build positive learning environments, determine interventions to improve relations in the classroom, and cope with challenging behaviors and special abilities. Explores teacher as model, facilitator, and supervisor of instruction called to fashion environments that invite exploration, inquiry, and positive self-concepts. Ten hours of field practice is required in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML410 Science Methods 1 (Min SH: 1, Max SH: 1)

For preprofessional educators to practice the techniques of teaching science. The use of inquiry based learning is stressed. Science is treated more as a process than as a body of knowledge. Commercially produced science programs are reviewed. Sixteen participation hours are required in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML412 Science Methods II (Min SH: 2, Max SH: 2)

For preprofessional educators to practice the techniques of teaching science. The use of inquiry based learning is stressed. Science is treated more as a process than as a body of knowledge. Commercially produced science programs are reviewed. Students will prepare lessons to present to peers and children in the local schools. A demonstrated understanding of science manipulatives is required. Thirty-two participation hours are required in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML414 Science Methods III (Min SH: 3, Max SH: 3)

For preprofessional educators to practice the techniques of teaching science, including a working understanding of the 5-E Model. The use of inquiry based learning is stressed. Science is treated more as a process than as a body of knowledge. Commercially produced science programs are reviewed. Students will prepare lessons to present to peers and children in the

local schools. A demonstrated understanding of science manipulatives is required. Forty-eight participation hours are required in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML421 Language Arts Methods 1 (Min SH: 1, Max SH: 1)

Designed to provide an examination of the content and methods for a dual concentration in English, language arts, reading and mathematics or science (biology or geology) education for the elementary and middle level learner. This course includes 16 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML422 Language Arts Methods 2 (Min SH: 2, Max SH: 2)

Designed to provide an in-depth examination of the content and methods for a single concentration English, language arts, reading education for the elementary and middle level learner. This course includes 32 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML431 Mathematics Methods 1 (Min SH: 1, Max SH: 1)

Designed to provide an examination of the mathematics content and methods that support a single or dual concentration (Option I or II) in social studies, science (biology or geology), or English, language arts, reading education for the elementary and middle level learner. This course includes 16 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML432 Mathematics Methods II (Min SH: 2, Max SH: 2)

Designed to provide an in-depth examination of the content and methods for a dual concentration (Option II) in mathematics and science (biology or geology) or English, language arts, reading education for the elementary and middle level learner. This course includes 32 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML433 Mathematics Methods III (Min SH: 3, Max SH: 3)

Designed to provide an in-depth examination of the content and methods for a single concentration (Option I) in mathematics education for the elementary and middle level learner. This course includes 48 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

#### ELML441 Social Studies Methods 1 (Min SH: 1, Max SH: 1)



Designed to provide an examination of the social studies content and methods that support a single or dual concentration in mathematics, science (biology or geology), or English, language arts, reading education for the elementary and middle level learner. This course includes 16 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

ELML442 Social Studies Methods II (Min SH: 2, Max SH: 2)

Designed to provide an in-depth examination of the content and methods for a dual concentration (Option II) in social studies and mathematics or science (biology or geology) education for the elementary and middle level learner. This course includes 32 hours of field experience in addition to class time.

Prerequisites: None

Corequisites: None

ELML493 Student Teaching and Practicum: Elementary and Middle Level Learner 1 (Min SH: 6, Max SH: 6)

The first of two capstone experience for pre-service teachers. Two student teaching experiences are provided at two levels that are appropriate to certification areas and grade level ranges. Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions. The program follows the guidelines of the Pennsylvania Department of Education (PDE) and the Association of Middle Level Education (AMLE).

Prerequisites: None

Corequisites: None

ELML494 Student Teaching and Practicum: Elementary and Middle Level Learner 2 (Min SH: 6, Max SH: 6)

The capstone experience is the second of two student teaching placements, one at each level that is appropriate to certification areas and grade level ranges. Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions. The program follows the guidelines of the Pennsylvania Department of Education (PDE) and the Association of Middle Level Education (AMLE).

Prerequisites: None

Corequisites: None

ENGL090 College Writing Skills (Min SH: 3, Max SH: 3)

Intensive practice in critical reading skills and forms of college writing. (This course will be required only for those students whose SAT Writing scores are below 400.) Course is not a remedial course; credits count toward graduation as elective credits.

Prerequisites: None

Corequisites: None

ENGL100 Composition (Min SH: 3, Max SH: 3)

Introduction to the basic principles of effective English written communication.

Prerequisites: None

Corequisites: None

ENGL110 Introduction to Literature (Min SH: 3, Max SH: 3)

An introduction to fiction, poetry, and drama that seeks to develop students' understanding of literature.

Prerequisites: None

Corequisites: None

ENGL119 First Year Seminar for English Major Students (Min SH: 1, Max SH: 1)

An introduction to the Lock Haven University Teacher Education Conceptual Framework and national standards for foreign language and English. The course guides students through the Stage I teacher education requirements and early field experience tasks, and addresses topics taught in generic freshman seminars.

Prerequisites: None

Corequisites: None

ENGL205 Introduction to Literary Studies (Min SH: 3, Max SH: 3)

An introduction to the English major with emphasis on methods and theories of literary analysis. The course covers how to write about literature, how to conduct literary research, the history of the book, and approaches to literary theory.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL220 World Literature (Min SH: 3, Max SH: 3)

A survey of world literature. This course explores literature written in English and in English translation from different parts of the world. The course focuses on reviewing how different cultures and different linguistic systems construct and represent salient experiences of our lives such as growing up, gender differences, social movements, aesthetic movements, political conflicts, experiences of war, peace, freedom, spirituality, etc. Texts will be discussed in relation to their genre and also to intertextual and non-literary contexts such as the historical, social, or political environments that govern the creation, enjoyment and endurance of a literary work.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL225 Core Texts in the Western Tradition (Min SH: 3, Max SH: 3)

An introduction to Greek and Roman mythology and the Bible that prepares students to recognize and explain the significance of allusions in diverse literary traditions and contexts.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL230 British Literature Before 1800 (Min SH: 3, Max SH: 3)

A comprehensive survey of British literature from the Anglo-Saxon beginnings to the end of the 18th century.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL231 British Literature After 1800 (Min SH: 3, Max SH: 3)

A comprehensive survey of 19th and 20th century British Literature.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL235 Teaching Literature to Adolescents and Young Adults (Min SH: 3, Max SH: 3)

A pre-professional study of young adult literature designed for teachers and others who use literature in teaching adolescents. In addition to a critical survey of material written for or suitable for young adults, consideration is given to techniques and strategies for using these materials in middle, junior, and senior high schools to develop adolescents' enjoyment of and engagement with reading and to promote reading maturity. Additional topics include current trends in the fields and specialized sources of information about young adults and their reading.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL237 Creative Nonfiction Workshop (Min SH: 3, Max SH: 3)

A workshop that teaches how to use the techniques of fiction writing in the writing of nonfiction.

Prerequisites: ( ENGL100 AND ENGL110 ) OR ( ENGL100 AND ENGL220 ) OR ( HONR111 AND HONR112 ) OR ( ENGL110 AND HONR111 ) OR ( ENGL100 AND HONR112 ) OR ( ENGL220 AND HONR111 )

Corequisites: None

ENGL240 American Literature Before the Civil War (Min SH: 3, Max SH: 3)

A study of selected American literature from its pre-Columbian origins to literature written before the Civil War, with emphasis upon the development of major literary movements.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL264 Fiction Workshop (Min SH: 3, Max SH: 3)

An introduction to the writing of short fiction through a balance of lectures, readings, writing exercises and the traditional workshop.

Prerequisites: ( ENGL100 AND ENGL110 ) OR ( ENGL100 AND ENGL220 ) OR ( HONR111 AND HONR112 ) OR ( ENGL110 AND HONR111 ) OR ( ENGL100 AND HONR112 ) OR ( ENGL220 AND HONR111 )

Corequisites: None

ENGL266 Drama Workshop: Playwriting 1 (Min SH: 3, Max SH: 3)

A workshop in the writing of plays and screenplays. Students will assess drama from the viewpoint of the dramaturge rather than the literary critic with a new understanding of how and why it works or doesn't work. Students will define, identify, and critique in professional and student-written plays and screenplays elements such as characterization, plot, organization, use of stage/film conventions, and balance of visual and verbal story-telling.

Prerequisites: ( ENGL100 ) OR ( HONR111 ) OR ( ENGL110 ) OR ( ENGL220 ) OR ( HONR112 )

Corequisites: None

ENGL268 Poetry Workshop (Min SH: 3, Max SH: 3)

A workshop in the writing of poetry in which students study and discuss published poems and apply similar literary techniques to their own work; participate in workshop discussions; pursue independent writing projects; evaluate and discuss the work of fellow students; and meet with the instructor for individual consultation.

Prerequisites: ( ENGL100 AND ENGL110 ) OR ( ENGL100 AND ENGL220 ) OR ( HONR111 AND HONR112 ) OR ( ENGL110 AND HONR111 ) OR ( ENGL100 AND HONR112 ) OR ( ENGL220 AND HONR111 )

Corequisites: None

ENGL280 Introduction to the Study of Language (Min SH: 3, Max SH: 3)

Surveys historical and comparative linguistics, psycholinguistics, etymology, phonology, morphology, syntax and semantics. Special attention is paid to the history of the English language, usage, literacy, and nonstandard varieties of English.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL312 Secondary Education 2: English (Min SH: 4, Max SH: 4)

The second in a sequence of early field experiences designed to provide student an opportunity to observe and participate in several diverse school settings. Extends and applies the theoretical base presented in Methods 1, as students develop and refine the professional attitudes and discipline-specific pedagogical skills necessary to implement effective literacy instruction.

Prerequisites: None

Corequisites: None

ENGL315 Composition Usage and Editing Techniques (Min SH: 3, Max SH: 3)

An overview of techniques for evaluating and editing expository and argumentative prose.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL328 Seminar-Humanities (Min SH: 3, Max SH: 3)

A thematic or topical approach to literature, with emphasis on close textual analysis and an exploration of the relationship between literature and the historical or social contexts. Texts might be drawn from American, British, or world literature, and could include poetry, prose, drama, or nonfiction. Topics might include, among others: images of women, representations of the American West, medical themes in literature, novels about war, domestic fiction, or literary realism.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL345 Business Writing (Min SH: 3, Max SH: 3)

A study and application of current theories and practices of effective professional communication, focusing on using common business formats to write for specific audiences in a variety of contexts.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL357 Advanced Composition, Rhetoric and Writing (Min SH: 3, Max SH: 3)

Study of the history of ideas about rhetoric and the effective use of language and images. The course focuses on practical applications for composing, critiquing, and teaching written, visual, and oral texts.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL360 Technical Writing (Min SH: 3, Max SH: 3)

Practical experience in communicating scientific and technical material to a variety of audiences through clear, concise, and accurate writing..

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL400 Advanced Topics in British Literature (Min SH: 3, Max SH: 3)

Intensive study of a theme, genre, issue, or period in British literature.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL402 Advanced Topics in American Literature (Min SH: 3, Max SH: 3)

Intensive study of a theme, genre, issue, or period in American literature.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL404 Advanced Topics in World Literature (Min SH: 3, Max SH: 3)

Intensive study of a theme, genre, issue, or period in world literature.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL405 Grammars of English (Min SH: 3, Max SH: 3)

An analysis of English grammar from the perspectives of traditional grammar and transformational generative grammar. Primary attention will be given to understanding English morphology and syntax, grammar concepts, and evidence and arguments for correctness in usage.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

ENGL425 Major American Writers (Min SH: 3, Max SH: 3)

Examines one or several major American writers.

Prerequisites: ( ENGL100 AND ENGL110 ) OR ( ENGL220 ) OR ( ENGL230 ) OR ( ENGL231 ) OR ( ENGL240 ) OR ( HONR112 )

Corequisites: None

ENGL435 Major British Writers (Min SH: 3, Max SH: 3)

Focuses on the major works of one or several major British writers.

Prerequisites: ( ENGL100 AND ENGL110 ) OR ( ENGL220 ) OR ( ENGL230 ) OR ( ENGL231 ) OR ( ENGL240 ) OR ( ENGL242 ) OR ( HONR112 )

Corequisites: None

ENGL493 Student Teaching and Practicum 1 Secondary Education English (Min SH: 6, Max SH: 6)

Provides the capstone experience for pre-service teachers through two student teaching experiences at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers and regular practicum sessions introduce the student to the range and scope of a professional educator's responsibilities. University professors supervise teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

ENGL494 Student Teaching and Practicum 2 Secondary Education English (Min SH: 6, Max SH: 6)

ENGL493 Student Teaching and Professional Practicum 1: Secondary Education English (6.0 sh)

Prerequisites: None

Corequisites: None

ENVT101 Introduction to Environmental Studies (Min SH: 3, Max SH: 3)

An introduction to the historical and contemporary problems and dilemmas in environmental studies, their scientific bases, sociological implications, ethical dimensions, and avenues for constructive response.

Prerequisites: None

Corequisites: None

ENVT328 Seminar-Liberal Arts: Topics in Environmental Studies (Min SH: 3, Max SH: 3)

A thematic or topical approach to environmental issues. Topics might include the following: contemporary environmental problems, representations of nature in the arts and in culture, and environmental activism.

Prerequisites: None

Corequisites: None

ENVT450 Capstone Research Project (Min SH: 1, Max SH: 3)

An intensive independent research project related to the discipline of Environmental Studies. Ideally the project will also relate to the student's major concentration.

Prerequisites: ( ENVT101 )

Corequisites: None

FREN102 French 2 (Min SH: 3, Max SH: 3)

The fundamentals of pronunciation, vocabulary, and patterns of expression. Oral and written practice intended to develop the skills of speaking, reading, writing, and listening to French.

Prerequisites: None

Corequisites: None

FREN201 French 3 (Min SH: 3, Max SH: 3)

A review of fundamentals, together with continued vocabulary development, more complete construction, and more advanced oral and written exercises.

Prerequisites: None

Corequisites: None

FREN202 French 4 (Min SH: 3, Max SH: 3)

A review of fundamentals, together with continued vocabulary development, more complete construction, and more advanced oral and written exercises.

Prerequisites: None

Corequisites: None

FREN203 French Civilization 1 (Min SH: 3, Max SH: 3)

The first semester examines modern France, emphasizing cultural traits, patterns of daily living, and current issues. The second semester follows the development of France from its earliest beginnings to the present, and traces its outstanding achievements in art, literature, architecture, science, etc.

Prerequisites: None

Corequisites: None

FREN204 French Civilization 2 (Min SH: 3, Max SH: 3)

The first semester examines modern France, emphasizing cultural traits, patterns of daily living, and current issues. The second semester follows the development of France from its earliest beginnings to the present, and traces its outstanding achievements in art, literature, architecture, science, etc.

Prerequisites: None

Corequisites: None

FREN301 French Comp and Conversation 1 (Min SH: 3, Max SH: 3)

In the first semester, extensive vocabulary development by reading and discussion of situational materials.

Prerequisites: None



Corequisites: None

FREN303 French Literature 1 (Min SH: 3, Max SH: 3)

Readings from the main works of French literature from the early Middle Ages to the present. Discussion of the characteristics of each work and of each literary movement. Critical readings. In this and subsequent literature courses, it is assumed that the student has the ability to read French with considerable ease, to follow lectures in the language, and to participate freely in discussions.

Prerequisites: None

Corequisites: None

FREN305 French Linguistics (Min SH: 3, Max SH: 3)

Introduces general concepts of structural linguistics, with special emphasis on comparison of the sound systems of French and English. Intensive work on the development of authentic pronunciation of French, including phonetic transcription.

Prerequisites: None

Corequisites: None

FREN306 Current French Periodicals (Min SH: 3, Max SH: 3)

Reading and discussion of the latest French newspapers and magazines, coupled with the study of contemporary France. Attention will be given to recent developments in French idiom and vocabulary, including "Franglais". Current tapes of French news broadcasts will help develop listening comprehension.

Prerequisites: None

Corequisites: None

FREN310 Advanced French Grammar (Min SH: 3, Max SH: 3)

An intensive study of French, providing review of basic grammar as well as presentation of more advanced topics not treated in French I-IV. Translation practice and structure drills will focus on problem areas arising from particular differences in English and French language structure.

Prerequisites: None

Corequisites: None

FREN320 Francophone Identities (Min SH: 3, Max SH: 3)

An exploration of diverse voices, social groups and societies in francophone literatures through works by francophone writers from all over the world. Designed as an introduction to the literatures and cultures of the francophone world, the course considers issues of social status, history, resistance, representation and identity. Taught in French.

Prerequisites: ( FREN202 )

Corequisites: None

FREN328 Seminar-Humanities (Min SH: 3, Max SH: 3)

A survey of major films produced by leading French directors since the 1960s. Films will be studied as expressions of French culture and related to the special circumstances of French life, society and history that they reflect. Films will be discussed both in general aesthetic terms and in terms of specifically French values and specifically French way of life. Special attention will

also be devoted to the differences between French and American filmmaking. Films are presented with English substitutes; no knowledge of French is necessary.

Prerequisites: None

Corequisites: None

#### GEOG100 Physical Geography (Min SH: 3, Max SH: 3)

An introduction to the physical geographical elements of the world. The earth's principal spheres (atmosphere, lithosphere, hydrosphere and biosphere) are explored through time and space as they respond to change. Major areas of study are the water cycle and budget, global soil systems, natural vegetation zones, climatic regions, earth dynamics, and ecological energetics.

Prerequisites: None

Corequisites: None

#### GEOG101 World Regional Geography (Min SH: 3, Max SH: 3)

Examines the economic, political, environmental, and cultural processes that influence the spatial interaction between less and more developed regions of the world with particular emphasis on the extent to which regions are being affected by globalization.

Prerequisites: None

Corequisites: None

#### GEOG305 Conservation Natural Resources (Min SH: 3, Max SH: 3)

An introduction to the conservation ideas from an optimistic viewpoint. Basic earth materials must be employed or converted to sustain our material culture. The basic resources are investigated and discussed. Major areas of study are water, minerals, soils, energy, forests, wildlife, pollution, and environmental quality.

Prerequisites: None

Corequisites: None

#### GEOG315 Political Geography (Min SH: 3, Max SH: 3)

The course is an in-depth study of how geography has influenced political phenomena throughout history. Political processes and environmental interaction at various levels of the political hierarchy are examined. Present day political problems are viewed in their aerial context.

Prerequisites: None

Corequisites: None

#### GEOG328 Seminar-Social Science (Min SH: 3, Max SH: 3)

Uses a thematic and topical approach to examine issues in geography such as ethnic conflict, regional integration and separatism, regional development, sustainable development, poverty and uneven development, environmental degradation, and overpopulation (to be determined by the professor). Particular emphasis is placed on historical, political, and economic forces as they relate to contemporary issues associated with globalization.

Prerequisites: None

Corequisites: None

GEOG401 Special Problems (Min SH: 1, Max SH: 4)

Individual research under the guidance of the Geography staff. For advanced students in Geography.

Prerequisites: None

Corequisites: None

GEOG440 Economic Geography (Min SH: 3, Max SH: 3)

This course in Economic Geography emphasizes the need for universal control of the spatially distributed natural resources. Economic Geography can be regarded as a science concerned with the rational development, and testing of theories that explain and predict the spatial distribution and location of various characteristics on the surface of the earth. These characteristics are related to the consumption, production, and exchange of goods and services. The scientific approach to the analysis of this spatial distribution and its interrelationships involves two aspects, which are equally important. The first is the collection of facts or data, and the second is the synthesis of these facts into meaningful theories of great interest to economic geographers in the quantitative analysis of spatial distributions to discern the presence and form of patterns.

Prerequisites: None

Corequisites: None

GEOG445 Geography of Latin America (Min SH: 3, Max SH: 3)

A systematic, conceptual, methodological framework is devised as a basis to view the various regions. Included is the survey of Mexico, countries of Central American, major countries and areas of the West Indies, and all the South American countries. Emphasis is placed upon regional comparisons. The relations of Latin American countries among themselves and the rest of the world are stressed.

Prerequisites: None

Corequisites: None

GEOS101 Earth Science (Min SH: 3, Max SH: 3)

An introduction to Earth-system processes in the context of astronomy, meteorology, geology, and oceanography. This course examines the Earth's relationship to the Sun, Moon, and planets in the solar system. The Earth's major processes, including the hydrologic cycle, the rock cycle, plate tectonics, global wind circulation, ocean circulation, global climatic phenomena, and human-induced changes in the environment are examined through lectures and hands-on laboratory investigations.

Prerequisites: None

Corequisites: None

GEOS120 Oceanography (Min SH: 3, Max SH: 3)

A comprehensive study of major components of oceans, including the origin of evolution of ocean floors, energy and mineral resources of oceans, chemical constituents and reactions in seawater, air-sea interactions, marine organisms and the relationships between these organisms and the environments of oceans. Ocean-related environmental concerns, including beach erosion, wetland loss, sea-level fluctuations, and point sources and non-point sources of pollution are discussed. (This course is required for majors in Secondary Education/Earth and Space Science, Secondary Education/General Science, and Biology/Marine Biology. Therefore they will receive preference for registering for the course. A required four-day field trip to Wallops Island, VA for which the students have an out of pocket expense of \$100 at the field station, plus meal expenses on the trip to and from the Marine Science consortium station.)

Prerequisites: None

Corequisites: None

GEOS125 Geology of Gemstones (Min SH: 3, Max SH: 3)

An introduction to the composition, origin, occurrence, properties, and identification of gemstones. The course illustrates how internal Earth processes produce various minerals commonly used as gemstones and how surficial Earth processes act to release and concentrate gemstones into economically viable deposits. Students will learn the geologic setting of gemstones, basic principles of mineralogy, crystallography, and gemology. Course topics will emphasize the rarity of gemstone deposits as it applies to geologic conditions necessary for their formation.

Prerequisites: None

Corequisites: None

GEOS130 Principles of Geology I (Min SH: 3, Max SH: 3)

An introduction to the composition, structure, and internal physical processes of the earth, nature of minerals and rocks, surface erosional and depositional features, and the agents that form them. Topics include plate tectonics, earthquakes, volcanism, minerals, igneous rocks, weathering, erosion, and glacial processes, groundwater and stream processes, sedimentary rocks, and metamorphic rocks.

Prerequisites: None

Corequisites: None

GEOS131 Principles of Geology II (Min SH: 3, Max SH: 3)

Designed to gain an appreciation of the deepness of geologic time and the vastness of space and to develop an understanding of the geologic and biologic processes through which the Earth and life on Earth evolved over geologic time. Students acquire hands-on experience on the use of scientific equipment and mapping tools in the field and in laboratory settings. Applications of stratigraphic principles to interpret Earth's history and the trend in evolution of life are emphasized.

Prerequisites: ( GEOS130 ) OR ( GEOS110 )

Corequisites: None

GEOS135 Geology of National Parks (Min SH: 3, Max SH: 3)

An introduction to basic geologic concepts through examples from our national parks and monuments. The course illustrates how Earth's internal processes are responsible for earthquakes, volcanoes, and the formation of mountain ranges, and how the action of wind, water, and ice at Earth's surface results in erosion and exposure of older rocks. Students will learn how national park geology relates to the theory of plate tectonics, a framework that has revolutionized thinking in the geosciences.

Prerequisites: None

Corequisites: None

GEOS140 Sustainability Science (Min SH: 3, Max SH: 3)

An investigation of interconnectedness of global trends in population growth, natural resources, energy, water resources, biodiversity, agriculture, land use and urbanization, human health, food security, inequality in economic development, and global environmental threats in the context of climate change. The strategies and decision making skills to formulate pathways for economic growth that is socially inclusive and environmentally sustainable at the global scale will be discussed.

Prerequisites: None

Corequisites: None

GEOS213 Introduction to Geographic Information Systems (Min SH: 3, Max SH: 3)

An introduction to geographic information systems (GIS) with emphasis on capturing, storing, editing, querying, displaying, and analyzing geographically referenced data. Lecture and laboratory materials are designed to provide students with hands-on experience on real-world applications of GIS in their respective fields.

Prerequisites: None

Corequisites: None

GEOS230 Geomorphology (Min SH: 3, Max SH: 3)

A study of landforms and the factors involved in their formation including geologic processes, composition, structure, and climate. The laboratory emphasizes the recognition of various landforms using topographic and aerial photographs.

Prerequisites: ( GEOS110 ) OR ( GEOS130 )

Corequisites: None

GEOS260 Geology Field Methods (Min SH: 1, Max SH: 1)

An introduction to common geology field methods and tools used to describe, identify, measure, collect, and record geological field data necessary to produce geologic maps and cross-sections, and to develop a geologic history based on multiple lines of evidence. The course is designed for weekend or summer session outdoor exercises in local or regional geologic settings.

Prerequisites: ( GEOS130 AND GEOS131 )

Corequisites: None

GEOS301 Invertebrate Paleontology (Min SH: 3, Max SH: 3)

An introduction to the study of invertebrate fossils including: system of classification, types of fossil preservation, nomenclature, characteristic structures, ecology and evolution of the paleontologically important invertebrate phyla.

Prerequisites: ( GEOS210 ) OR ( BIOL240 ) OR ( GEOS131 )

Corequisites: None

GEOS305 Mineralogy and Petrology (Min SH: 4, Max SH: 4)

An introduction to the origin, occurrence, crystallography, and chemical and physical properties of geologically important minerals. Includes a study of the classification and interpretation of igneous and metamorphic rocks.

Prerequisites: ( GEOS110 ) OR ( GEOS130 )

Corequisites: None

GEOS313 Advanced Geographic Information Systems (Min SH: 3, Max SH: 3)

Deals with advanced topics in geographic information systems (GIS), including spatial reference data, geometric transformation, raster data analyses, terrain mapping, viewsheds and watersheds, spacial interpolation, geocoding, dynamic segmentation, path analyses, geostatistics, mobile GIS, and GIS models and modeling. Lecture and laboratory exercises are designed to provide students with hands-on experience with real-world applications of GIS in solving problems in diverse fields.

Prerequisites: ( BIOL213 ) OR ( GEOS213 )

Corequisites: None

GEOS315 Sedimentology (Min SH: 3, Max SH: 3)

The study of sedimentary materials, processes, depositional environments, and the products of sedimentation. Laboratories focus upon collection, analysis, and presentation of field data and the description and interpretation of both consolidated and unconsolidated sedimentary materials applying various petrologic and petrographic techniques.

Prerequisites: ( GEOS210 ) OR ( GEOS131 )

Corequisites: None

GEOS328 Seminar-Science (Min SH: 3, Max SH: 3)

The course looks at how scientists search for knowledge and try to gain an understanding of natural phenomena. Students explore the roles science and technology play in human activities both locally and globally. Specific topics vary and are based on the expertise and interest of the faculty member responsible for teaching the course that semester.

Prerequisites: None

Corequisites: None

GEOS361 Aqueous Environmental Geochemistry (Min SH: 3, Max SH: 3)

An upper-level course designed to help students develop in-depth knowledge of geochemical processes and factors controlling chemical composition and chemical reactions that impact the quality of both surface water and groundwater in natural and anthropogenically disturbed/perturbed geological systems.

Prerequisites: ( CHEM121 AND GEOS110 ) OR ( CHEM121 AND GEOS130 )

Corequisites: None

GEOS415 Stratigraphy (Min SH: 3, Max SH: 3)

The principles of lithostratigraphy and biostratigraphy form the core of this course. Geochronology and the recently developed techniques of seismic, magnetic, and isotopic stratigraphy supplement those classical principles. Laboratories emphasize the field identification and interpretation of vertical and lateral relationships of sedimentary sequences.

Prerequisites: ( GEOS315 )

Corequisites: None

GEOS420 Geology of Energy and Mineral Resources (Min SH: 4, Max SH: 4)

Geologic occurrence and methods of locating, mining, evaluating, and processing fossil fuels and industrial and ore minerals. Geology of major, worldwide fuel and mineral deposits and environmental problems associated with their exploitation.

Prerequisites: ( GEOS221 ) OR ( GEOS305 )

Corequisites: None

GEOS430 Structural Geology (Min SH: 4, Max SH: 4)

The constant movements of lithospheric plates relative to one another throughout the immensity of geologic time account for the regional and local displacement and deformation of the Earth's outer layers. These deformational processes along with the changes in the size and shape of the coherent rock masses and the internal arrangement of their constituent elements are the focus of this area of geological investigation.

Prerequisites: ( GEOS210 ) OR ( GEOS131 )

Corequisites: None

GEOS450 Geophysics and Tectonics (Min SH: 4, Max SH: 4)

Geophysical methods used to study the Earth and other planetary bodies, including geophysical foundations of plate-tectonic theory. The course includes geophysical techniques used in mineral-resource exploration, engineering, and characterization of waste-disposal sites.

Prerequisites: ( GEOS210 ) OR ( GEOS131 )

Corequisites: None

GEOS451 Coastal Environmental Oceanography (Min SH: 3, Max SH: 3)

Advanced topics in coastal geomorphology and environmental issues pertinent to coastal settings, including human impacts on coastal landforms, shoreline erosion, wetland loss, sea-level fluctuations, nutrients in estuaries, metals in bays, and climate change. Lecture, field trips, and laboratory exercises are designed to provide students with hands-on experience with field and laboratory equipment used to solve real-world problems in diverse coastal settings.

Prerequisites: ( GEOS120 ) OR ( GEOS130 )

Corequisites: None

GEOS458 Advanced Applied Nanotechnology Laboratory (Min SH: 3, Max SH: 3)

Laboratory experience drawn from an undergraduate foundation in sciences including areas of current research in nanotechnology. Experimental methods and analysis are used, with emphasis on group and individual work in the planning, execution, and presentation of research. Students may repeat for credit.

Prerequisites: ( PHAP206 )

Corequisites: None

GERM101 German 1 (Min SH: 3, Max SH: 3)

An introduction to the fundamentals of German grammar and syntax, with special attention to pronunciation, reading, speaking, listening and writing of simple sentences and prose selections.

Prerequisites: None

Corequisites: None

GERM102 German 2 (Min SH: 3, Max SH: 3)

An introduction to the fundamentals of German grammar and syntax, with special attention to pronunciation, reading, speaking, listening and writing of simple sentences and prose selections.

Prerequisites: None

Corequisites: None

GERM201 German 3 (Min SH: 3, Max SH: 3)

A review of the fundamentals of German language and pronunciation; reading of short German prose works illustrating aspects of style; development of vocabulary and linguistic fluency.

Prerequisites: None

Corequisites: None

GERM202 German 4 (Min SH: 3, Max SH: 3)

A review of the fundamentals of German language and pronunciation; reading of short German prose works illustrating aspects of style; development of vocabulary and linguistic fluency.

Prerequisites: None

Corequisites: None

#### GERM203 German Culture 1 (Min SH: 3, Max SH: 3)

The study of significant aspects of German culture, including current events and movements. Special attention is given to the outstanding persons, events and forces in art, music, theater, philosophy, politics, education, and religion, with a view towards understanding the German ethos.

Prerequisites: None

Corequisites: None

#### GERM204 German Culture 2 (Min SH: 3, Max SH: 3)

The study of significant aspects of German culture, including current events and movements. Special attention is given to the outstanding persons, events and forces in art, music, theater, philosophy, politics, education, and religion, with a view towards understanding the German ethos.

Prerequisites: None

Corequisites: None

#### GERM301 German Comp and Conversation 1 (Min SH: 3, Max SH: 3)

Advanced course to develop fluency in speaking and writing. Classroom time is devoted mainly to conversation about everyday life. Compositions will be written on contemporary topics. Grammar is treated as necessary.

Prerequisites: None

Corequisites: None

#### GERM303 German Literature 1 (Min SH: 3, Max SH: 3)

Readings from selected authors representative of the main periods of modern literature. Lectures on literary history and the lives of the more important writers supplement the discussion of works being studied. Students are expected to develop and express critical opinions.

Prerequisites: None

Corequisites: None

#### GERM304 German Literature 2 (Min SH: 3, Max SH: 3)

Readings from selected authors representative of the main periods of modern literature. Lectures on literary history and the lives of the more important writers supplement the discussion of works being studied. Students are expected to develop and express critical opinions.

Prerequisites: None

Corequisites: None

#### GERM305 Advanced German Grammar 1 (Min SH: 3, Max SH: 3)



A thorough review of the grammatical structure of the German language. Students learn to communicate correctly and effectively in German by means of extensive oral and written exercises that focus on specific areas of grammar.

Prerequisites: None

Corequisites: None

#### GERM306 Advanced German Grammar 2 (Min SH: 3, Max SH: 3)

A thorough review of the grammatical structure of the German language. Students learn to communicate correctly and effectively in German by means of extensive oral and written exercises that focus on specific areas of grammar.

Prerequisites: None

Corequisites: None

#### GERM328 Seminar-Humanities (Min SH: 3, Max SH: 3)

A survey of German film since 1970. Films will be studied as expressions of German culture and of a specifically German view of the world. Films are shown with English subtitles; no knowledge of German is necessary.

Prerequisites: None

Corequisites: None

#### GERM402 German Prose 2 (Min SH: 3, Max SH: 3)

A survey of German prose fiction since the eighteenth century. Students will study such modern writers as Hermann Hesse, Franz Kafka, Heinrich Boll, Thomas Mann, and Max Frisch. Literary works are studied both as products of their age and culture and for their own thematic interest. Changes in style, technique, and worldview are examined in historical perspective.

Prerequisites: None

Corequisites: None

#### HIST101 World History 1 (Min SH: 3, Max SH: 3)

A global survey of the evolution of societies and civilizations from prehistory to the early modern era. It covers the history of not only Europe and the Mediterranean basin, but also Africa, Asia and the Americas. Recurrent themes are the environment, community, politics, economy, technology, belief systems and culture.

Prerequisites: None

Corequisites: None

#### HIST111 Global History 1 (Min SH: 3, Max SH: 3)

A global survey of the evolution of societies and civilizations from prehistory to the early modern era. It covers the history of Europe and the Mediterranean basin, but also Africa, Asia and the Americas. Recurrent themes are the environment, community, politics, economy, technology, belief systems and culture. Restricted to History and Secondary Education, Social Studies majors

Prerequisites: None

Corequisites: None

#### HIST112 Global History 2 (Min SH: 3, Max SH: 3)

A survey of world history from the early modern period to the present. Its central focus is the gradual integration of diverse populations as global contact expanded during the period in question. Students will consider the construction of historical periodization from a multi-cultural perspective while examining a variety of themes that illuminate the interaction of cultures through conflict and cooperation. Restricted to History and Secondary Education, Social Studies majors

Prerequisites: None

Corequisites: None

#### HIST119 First Year Student Seminar (Min SH: 1, Max SH: 1)

An introduction to the university learning environment for first year history majors. Students learn the goals of a liberal arts degree and specifically of a BA in History. The course also covers specific learning strategies, classroom technologies and institutional resources that might help them achieve their goals.

Prerequisites: None

Corequisites: None

#### HIST150 American History (Min SH: 3, Max SH: 3)

A rapid survey of political, economic, diplomatic, social, and cultural developments in the United States from the beginning of the colonial period to the present. This course does not fulfill the general education requirement in history.

Prerequisites: None

Corequisites: None

#### HIST200 Historical Thinking and Writing (Min SH: 3, Max SH: 3)

An introduction to historical methods, with emphasis upon sources, interpretation, presentation and scholarly debate. Thematic content (i.e., geographic region, era, or subject) and/or case studies to be determined by the instructor.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

#### HIST201 History of the United States 1 (Min SH: 3, Max SH: 3)

A survey of U.S. history from the foundations of English colonialism at Jamestown to the end of Reconstruction (1607-1877). This course will encompass political, economic, military, and social developments during the Colonial Era, the Revolution, the early national period, the age of Jackson, the Civil War, and Reconstruction.

Prerequisites: None

Corequisites: None

#### HIST202 History of the United States 2 (Min SH: 3, Max SH: 3)

A survey of U.S. history since 1877. Framed around the rise of the U.S. as an industrial nation and a world power, the course investigates accompanying social, political, economic, environmental and cultural developments. These include immigration and migration, alliances with other nations, causes and consequences of wars, changing political ideologies, racial, ethnic, and gender identities and issues, causes and consequences of protest movements, causes and consequences of economic change, and changes in family and community.

Prerequisites: None

Corequisites: None

HIST205 History of the United States Labor Movement (Min SH: 3, Max SH: 3)

A study of the American labor movement from early national beginnings to the present placed within the framework of general historical development. It seeks to explore the world of both the wage earner and the organizations created to achieve common goals. Emphasis is focused on the growth of American unionism and the development of collective bargaining.

Prerequisites: None

Corequisites: None

HIST210 Colonial America (Min SH: 3, Max SH: 3)

A survey of American life from the beginnings of English settlement to 1789, with emphasis upon the development of political, economic and cultural institutions.

Prerequisites: None

Corequisites: None

HIST230 Appalachian Regional History (Min SH: 3, Max SH: 3)

Traces the unique history of Appalachia, a region that runs from Alabama through New York and includes Central and Western Pennsylvania. Students will scrutinize and discuss primary sources and historical analyses as they consider the construction of the notion of "Appalachia." The course will introduce students to patterns of settlement and exploitation of resources, discuss variations within the region, and examine Appalachia's history within both a national and an international context.

Prerequisites: None

Corequisites: None

HIST245 History of Pennsylvania (Min SH: 3, Max SH: 3)

Pennsylvania from its colonial beginnings to the present; special attention to the political, economic, and social factors which have shaped the past; the Commonwealth's impact upon the national scene.

Prerequisites: None

Corequisites: None

HIST300 Early American Republic (Min SH: 3, Max SH: 3)

An exploration of various themes in United States history from the end of the Revolution through the era of Andrew Jackson (1783-1845). Topics to be covered include the emergence of political institutions, economic growth, the struggle to create a functional foreign policy, westward expansion, the rise of sectional tensions, and the changing characteristics of a developing society.

Prerequisites: None

Corequisites: None

HIST301 Medieval History (Min SH: 3, Max SH: 3)

A survey of European history during the Middle Ages (ca. 500-1500 CE), from the collapse of the Roman Empire to the dawn of the Early Modern era. The course covers the major social, political, and religious, intellectual, and artistic developments of the period.

Prerequisites: None

Corequisites: None

HIST302 Civil War and Reconstruction (Min SH: 3, Max SH: 3)

A study of the American Civil War era, 1845-1877. Topics to be emphasized include the ante-bellum South; the origins of the Civil War; the war in its military, political, diplomatic, social and economic aspects; and reconstruction, South and North.

Prerequisites: None

Corequisites: None

HIST305 Renaissance and Reformation (Min SH: 3, Max SH: 3)

A survey of the cultural and intellectual achievements of the Italian and Northern Renaissances and Protestant Reformation. The course highlights European contacts with the wider world and outside influences on European intellectual and artistic movements. Emphasis is placed on secularism, humanism, and individualism during the era of the Italian and Northern Renaissances and important movements of the Protestant Reformation including Lutheranism, the Swiss reform movements, Anglicanism, the Catholic Counter-Reformation, and the European religious wars.

Prerequisites: None

Corequisites: None

HIST306 History of the American Frontier (Min SH: 3, Max SH: 3)

A study of the westward movement and its influence upon the American development. Social and economic aspects of the frontier experience will be emphasized.

Prerequisites: None

Corequisites: None

HIST307 Diplomatic History of US (Min SH: 3, Max SH: 3)

Foreign relations from the beginning of our national history to the present: the growth and influence of a policy of "isolation"; the creation and development of the Monroe Doctrine; the emergence of the United States as a world power; the problems incident to the assumption of global responsibilities.

Prerequisites: None

Corequisites: None

HIST310 French Revolution and Napoleon (Min SH: 3, Max SH: 3)

The Old Regime, the Enlightenment, and the causes of the French Revolution. Revolutionary events of the decade 1789-1799 and military, legal, economic, and political aspects of the Napoleonic era. The emergence of the bourgeoisie.

Prerequisites: None

Corequisites: None

HIST311 International Business History (Min SH: 3, Max SH: 3)

An examination of selected topics in the development of modern business cultures. The expansion of the industrial, world economy will serve as the general chronological framework, with major units devoted to: family firms and trading diasporas, chartered and joint stock companies, banking and insurance, commercial adaptations of new technologies, the creation of mass markets, "business imperialism," the multinational corporation, and business cultures within late industrializers and "emerging" markets.

Prerequisites: None  
Corequisites: None

HIST312 US in Prosperity and Depression, 1918-1941 (Min SH: 3, Max SH: 3)

An examination of the culture, economics and politics of the U.S. between the two world wars. Topics include the impact of World War I, the emergence of a mass consumer culture in the 1920's, the Great Depression and its effects on U.S. society, the rise of the modern labor movement, the New Deal and the origins of the welfare state, and the legacy of these developments for contemporary America.

Prerequisites: None  
Corequisites: None

HIST313 Nationalism in Asia (Min SH: 3, Max SH: 3)

An examination of the rise of modern nationalism in India, China, Japan and Southeast Asia in the nineteenth and twentieth century. Emphasis will be on a thematic, theoretical and comparative approach highlighting the similarities and differences in society and culture of each of these regions and their response to nationalism.

Prerequisites: None  
Corequisites: None

HIST315 Social History of Europe Since 1750 (Min SH: 3, Max SH: 3)

An interdisciplinary survey of the pattern of social history of modern Europe with particular reference to the interaction of institutions and struggles of social classes. Use is made of social sciences auxiliary to the study of history, in particular economics, demography and sociology.

Prerequisites: None  
Corequisites: None

HIST316 Early Christianity (Min SH: 3, Max SH: 3)

An exploration of the origins of Christianity in the first century CE and its development and spread through the seventh century CE. The class emphasizes the influence of eastern religious traditions and culture on Christianity, the Roman reaction to Christianity, the formation and organization of early Christian communities, early Christian spirituality and religious practices. The course also emphasizes the divergence of eastern and western Christian traditions, the influence of Christianity on the rise of Islam, and Islam's impact on the Christian world.

Prerequisites: None  
Corequisites: None

HIST318 US Women's History (Min SH: 3, Max SH: 3)

An exploration of the experiences of women in the United States from colonial times to the present. The course examines the way that U.S. history has been shaped by gender, that is, the impact of gender on women's economic status and social roles. It also explores the diversity of experiences of women of different classes and ethnic backgrounds. Finally, the course examines women's contributions to U.S. culture or politics.

Prerequisites: None  
Corequisites: None

HIST322 History of Modern China (Min SH: 3, Max SH: 3)

Traces the political, social, economic, and intellectual evolution of China from approximately 1800 to present. Special emphasis will be placed upon Western imperialism in China, the Revolution of 1911, the rise of the Nationalist and Communist Parties, the Chinese Civil War, the People's Republic, and post-Mao China. No previous exposure to China is presumed.

Prerequisites: None

Corequisites: None

#### HIST324 Environmental History of Asia (Min SH: 3, Max SH: 3)

A study of the ecological landscape of Asia from the earliest times with a focus on the diverse aspects of its environmental history. Addresses human migrations, changes in land use patterns, water management systems, forests, grazing lands, and climatic change, in the context of oceanic and overland interactions among the inter-communicating regions within Asia, and between Asia and the rest of the World.

Prerequisites: None

Corequisites: None

#### HIST327 History of Modern Japan (Min SH: 3, Max SH: 3)

Traces the evolution of Japan from an isolated island nation to a world power. Deals with the political, economic, social, military and intellectual history of Japan from 1600 to the present. Particular emphasis will be placed on the Takugawa Bakafu, the Meiji Restoration, the rise of Militarism and Nationalism, the Russo-Japanese War, the occupation of China, World War II, the Reconstruction, and the modern Japanese economy. No previous exposure to Japan is presumed.

Prerequisites: None

Corequisites: None

#### HIST328 Seminar-Social Science (Min SH: 3, Max SH: 3)

A thematic approach to an historical topic, with an emphasis on relevance to contemporary society. Designed for discussion among upper-class students of all majors, the course emphasizes interdisciplinary approaches and includes insights and perspectives from the humanities, other social sciences, or the sciences.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

#### HIST333 History of the Islamic World Since 1798 (Min SH: 3, Max SH: 3)

An examination of selected topics of the modern Islamic history, introducing students not only to important personages, events, and themes, but also to historical interpretation and method. The course will be divided into seven units from the pivotal 1790's to the present; specifically: decline and renewal in the late eighteenth century, the age of European colonialism, nineteenth and twentieth century nationalism, the politics of oil and the fundamentalist challenge.

Prerequisites: None

Corequisites: None

#### HIST334 China and India in Historical Perspective (Min SH: 3, Max SH: 3)

A comparative study of the history, culture, political economy, and environment of China and India in the context of the contemporary globalization process. Both countries are poised to become giants of the 21st century. The purpose is to look at the present developments, keeping in view their progress over several centuries, and to study the impact they have had and will have on the world.

Prerequisites: None  
Corequisites: None

HIST335 History of Modern Russia (Min SH: 3, Max SH: 3)

Major developments of Russian history since 1815. Emphasis upon the decline of Tsarism, rise of revolutionary movements, World War I and the Russian Revolution of 1917. Soviet ideology, foreign and domestic policies from Lenin to the present.

Prerequisites: None  
Corequisites: None

HIST337 Cold War America: US History 1945-1989 (Min SH: 3, Max SH: 3)

An examination of the political, economic, social and cultural trends in United States history from the end of World War II in 1945 to 1989.

Prerequisites: ( ENGL100 )  
Corequisites: None

HIST338 History and Preservation of American Architecture (Min SH: 3, Max SH: 3)

A study of American architectural history as material evidence of the country's social, cultural, economic and technological development. Examines the meaning, uses, and changes of selected architectural forms addressing a broad array of structures, monuments, and landscapes. Emphasizes the principles and methods of public history, especially historic preservation. Includes attention to professional careers and ongoing projects in historic preservation.

Prerequisites: ( HIST200 ) OR ( HIST203 )  
Corequisites: None

HIST342 History Modern Europe 1815-1914 (Min SH: 3, Max SH: 3)

A chronological and topical approach. Evaluation of major political, economic, social and cultural trends, with particular emphasis on industrialization and economic and social changes, development of the power of the nation-state, imperialism, and the origins of World War I.

Prerequisites: None  
Corequisites: None

HIST343 History Mod Europe 1914-Present (Min SH: 3, Max SH: 3)

A chronological and topical approach. Evaluation of major political, economic, social and cultural trends, with particular emphasis on the impact of two world wars, fascism, establishment of the USSR, western European resurgence after World War II, and the shaping of the post-Cold War order.

Prerequisites: None  
Corequisites: None

HIST347 The Ancient Mediterranean (Min SH: 3, Max SH: 3)

An analysis of the evolution of ancient Mediterranean societies and cultures from the prehistory of the area until the decline of the Roman Empire, the rise of Islam, and the end of the Mediterranean as a cultural unit. It focuses on the major social, political, cultural, and religious institutions and practices of ancient Mesopotamia, Egypt, Palestine, Phoenicia, Asia Minor, Greece, and Rome.

Prerequisites: None  
Corequisites: None

#### HIST358 History of Modern South Asia and Indian Ocean (Min SH: 3, Max SH: 3)

Provides the student with a basic understanding of the history and civilization of India, Pakistan and Bangladesh, from South Asia's earliest history up to the present. Special emphasis will be placed on the Classical Age of Indian History, the great Mughal Empire, the British Empire, and independent South Asia. No previous exposure to South Asia is presumed.

Prerequisites: None  
Corequisites: None

#### HIST362 History of Africa to 1800 (Min SH: 3, Max SH: 3)

An examination of selected topics in pre-colonial African history. with the aim of introducing students not only to important personages, events and themes, but also to historical interpretation and method. The course will be divided into six units ranging from prehistory to the eighteenth century, specifically: food and society, ancient civilizations, human migration, state formation, Islamic society, and the transatlantic slave trade.

Prerequisites: None  
Corequisites: None

#### HIST363 History of Africa Since 1800 (Min SH: 3, Max SH: 3)

A survey of modern African history from 1800 to the present, with the aim of analyzing contemporary issues from an historical perspective. In particular, the course will revolve around the question of whether the colonial period was simply a brief, superficial phase in African history, or a time of upheaval and transformation. Emphasis will be placed on African agriculture, rural communities, industrialization, urbanization, and colonial and contemporary politics.

Prerequisites: None  
Corequisites: None

#### HIST366 History of Modern Southeast Asia (Min SH: 3, Max SH: 3)

Traces the evolution of Southeast Asia from its early modern history as a focal region for European and American colonialism and conquest, to the emergence of the contemporary independent states. Emphasis will be placed on Dutch colonialism in Indonesia, the British in Burma and Malaysia, America in the Philippines, French Indochina, the Vietnam War, and Southeast Asia since 1975.

Prerequisites: None  
Corequisites: None

#### HIST367 Colonial Latin American History (Min SH: 3, Max SH: 3)

Surveys the history of the vast area known as Latin America from Pre-Columbian times to the wars of independence of the early nineteenth century. Examines the major Pre-Columbian civilizations, the early encounter with Iberians, processes of conquest and transformation that resulted in the creation of unique American societies. Focuses on the development of the economic, political, social, cultural and religious institutions of this region.

Prerequisites: None  
Corequisites: None



HIST370 History of Latin America (Min SH: 3, Max SH: 3)

The development of Latin America from the period of discovery to the present. The relation of economic, social and cultural factors to the various political units. The influence of relations with Europe and the U.S.

Prerequisites: None

Corequisites: None

HIST375 History of Mexico and Central America (Min SH: 3, Max SH: 3)

A general history of Middle America from the conquest by the Spanish to the present, with emphasis upon the national rather than the colonial experience. Special emphasis on Mexico and Cuba and on the relationships of Middle America with the U.S.

Prerequisites: None

Corequisites: None

HIST377 Modern Latin American History (Min SH: 3, Max SH: 3)

A survey of the history of Latin America from the Wars of Independence (1820s) to the present. Through lecture, readings, discussion and various media, students will analyze the economic and political development of Latin America, its authoritarian and revolutionary past and its recent transitions to democracy. The role of popular culture in national development and identity as well as relations with the U.S. will also be examined.

Prerequisites: ( HIST\*\*\* )

Corequisites: None

HIST385 History of Modern South Africa (Min SH: 3, Max SH: 3)

An exploration of modern South African political, social and economic problems within an historical context. Thus, the course will survey the development of colonial political institutions, industries, social class and popular movements with the aim of better defining the protests and reforms of recent years. Topics covered will include: pre-colonial Southern African societies, Dutch colonization and Afrikaner society, the mineral revolution and industrialization, rural impoverishment and labor migration, colonial labor and segregation policies, labor unions, African nationalism, and the rise and apparent fall of the apartheid regime.

Prerequisites: None

Corequisites: None

HIST390 Contemporary World Problems (Min SH: 3, Max SH: 3)

A detailed study of the historical background and significance of several major contemporary problems. Issues treated will vary from year to year in response to the changing world scene. Typical problems are the Arab-Israeli conflict, arms limitation, northern Ireland, the status of Taiwan, among others.

Prerequisites: None

Corequisites: None

HIST395 Historiography (Min SH: 3, Max SH: 3)

An examination of the nature of historical inquiry and historical knowledge through a study of the principles of historical methodology. A survey of the history of historical writing with emphasis upon the critical historical scholarship of the last two centuries.

Prerequisites: None  
Corequisites: None

#### HIST480 Capstone Research Seminar (Min SH: 3, Max SH: 3)

A research seminar, with emphasis upon historical sources, interpretation, presentation and scholarly debate. Thematic focus (i.e., era or theme) to be determined by the instructor, according to the following criteria: 1) global in scope, 2) local history application, 3) subject of historical debate.

Prerequisites: ( HIST200 AND HIST3\*\* )  
Corequisites: None

#### HLTH100 Medical Terminology (Min SH: 1, Max SH: 1)

An introductory study of medical language including basic word structure, medical prefixes and suffixes. It is designed to help students interpret medical terms as used in medical practice.

Prerequisites: None  
Corequisites: None

#### HLTH104 Foundations of Health Education (Min SH: 1.5, Max SH: 1.5)

Introduces students to the profession of health education. Emphasis is placed on the history of the profession; major determinants of health status; the contributions of the behavioral sciences, education and public health; and health behavior change theory. Students will analyze the roles and responsibilities of health educators.

Prerequisites: None  
Corequisites: None

#### HLTH105 Introduction to Health (Min SH: 3, Max SH: 3)

An introductory survey of basic health issues, emphasizing the development of health literacy skills to enhance students' efficacy in reaching and maintaining a lifestyle conducive to health and wellness. A foundation of health content will be covered to serve as a basis for further study of contemporary health issues. Open to students who have not earned a C or better in RECR105 or HPED060.

Prerequisites: None  
Corequisites: None

#### HLTH108 Medical Terminology for Health Professions (Min SH: 3, Max SH: 3)

An in-depth study of medical terms. Terminology of body systems will also be covered. Emphasis will be placed on terminology of disease, diagnosis and treatment procedures related to each body system.

Prerequisites: None  
Corequisites: None

#### HLTH110 Orientation Athletic Training (Min SH: 1, Max SH: 1)

Introduces students to the profession of athletic training, different career settings for athletic trainers, and the role of the athletic trainer in the patient care model. The course also exposes students to introductory athletic training skills and athletic training room management.

Prerequisites: None  
Corequisites: None

#### HLTH115 Human Anatomy and Physiology 1 (Min SH: 4, Max SH: 4)

The course is the first in a two course sequence designed to introduce students to human anatomy and physiology in both healthy and disease states. Students explore fundamental concepts of chemistry, cells and histology as applied to the study of sensory organs, integumentary, skeletal, muscular, and nervous systems.

Prerequisites: None  
Corequisites: None

#### HLTH119 First Year Student Seminar (Min SH: 1, Max SH: 1)

Designed to introduce students to the culture and mission of the university within the context of Health Science. Students are encouraged to explore the purpose of a college education and provided an opportunity to engage with the academic discipline. Students are introduced to learning strategies and study skills. Class discussion, students engage in active learning, common co-curricular activities, service and/or civic opportunities are incorporated to promote connection with fellow students, faculty, university and the community.

Prerequisites: None  
Corequisites: None

#### HLTH120 Human Anatomy and Physiology 2 (Min SH: 4, Max SH: 4)

The second of a two course sequence to introduce students to a study of the normal structure and function of the human body. Students explore the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems.

Prerequisites: None  
Corequisites: None

#### HLTH140 Introduction to Public Health (Min SH: 3, Max SH: 3)

An overview of the key aspects of public health, including its history, mission, essential services, core functions, infrastructure, resources, workforce, achievements, challenges and career options.

Prerequisites: ( HLTH105 )  
Corequisites: None

#### HLTH200 Introduction to Disease (Min SH: 3, Max SH: 3)

Designed to provide health science students with a background of information that is needed for future advanced studies in specific allied health professions. Course topics include the following: medical terminology and documentation, basic evaluation skills, the inflammatory and healing processes, and an introduction to the diseases that occur within the body's systems.

Prerequisites: ( HLTH115 AND HLTH120 )  
Corequisites: None

#### HLTH204 Foundations of School and Community Health Education (Min SH: 3, Max SH: 3)

An introduction to the profession of health education. There is an emphasis on the history of the profession, theoretical foundations of health education, determinants of health, accessing and evaluating health information, basic epidemiology and the roles and responsibilities of health educators in the school and community settings.

Prerequisites: None  
Corequisites: None

HLTH208 Stress Management and Life Skills for Health Promotion (Min SH: 3, Max SH: 3)

The interrelationship of physical, mental, and psychological aspects of overall health. The emphasis is on the development of health literacy skills to enhance students' efficacy in researching and maintaining a lifestyle conducive to health and wellness. Students will be guided through identifying and analyzing how their personal lifestyles impact their health. Specific emphasis on preventive measures of disease, development of a stress management plan, and lifelong skills to promote every aspect of health.

Prerequisites: None  
Corequisites: None

HLTH214 Planning and Assessment in School Health Education (Min SH: 2, Max SH: 2)

An overview of planning and assessment in health education in the Pre-K through 12 setting. Emphasis is placed on designing comprehensive health education plans, fully integrating health skills with content.

Prerequisites: ( HLTH204 ) OR ( HLTH104 AND HLTH215 )  
Corequisites: None

HLTH215 Community Health (Min SH: 1.5, Max SH: 1.5)

An overview of community health agencies and processes involved in community health education. Particular emphasis is placed on environmental health, uses of epidemiological data, and political processes and their influence on community health.

Prerequisites: ( HLTH105 ) OR ( HLTH104 )  
Corequisites: None

HLTH218 Public Health and the Environment (Min SH: 3, Max SH: 3)

Designed to introduce students to the fundamental concepts surrounding environmental and occupational health. Students will apply concepts in these areas to current environmental health issues including the following: risk assessment, policy generation and regulation, and human health impacts of environmental and occupational factors.

Prerequisites: ( HLTH115 AND HLTH120 )  
Corequisites: None

HLTH235 Community Health Education Methods and Strategies (Min SH: 3, Max SH: 3)

Designed to teach students the communication skills necessary to implement health education communication at the individual, group, community, and policy levels. Course content includes communication and learning theories, educational sessions and professional presentations, material development, social and legislative advocacy, and facilitating groups. Students will apply and practice oral communication concepts within the context of health education.

Prerequisites: ( HLTH105 )

Corequisites: None

HLTH240 Introduction to Epidemiology (Min SH: 3, Max SH: 3)

An introduction of basic epidemiologic concepts and methods including the basics of infectious disease, environmental epidemiology and psychosocial/behavioral epidemiology.

Prerequisites: ( HLTH200 AND MATH107 )

Corequisites: None

HLTH301 CPR and Emergency Care (Min SH: 3, Max SH: 3)

Designed to provide the student with the knowledge to evaluate both life-threatening situations and non life-threatening situations. Emphasis is placed on the evaluation and management of medical emergencies or trauma injuries and the necessary care for these conditions. Students who meet the minimum qualifications set by the Emergency Care Institute of Safety will receive Emergency Medical Responder certification.

Prerequisites: ( HLTH115 AND HLTH120 ) OR ( HLTH122 )

Corequisites: None

HLTH305 Introduction to Biomechanics (Min SH: 3, Max SH: 3)

Designed to introduce students to an understanding of human movement and to provide the foundation for critical analysis of physical activity and exercise. The approach includes the use of both quantitative and qualitative problems and applications are designed to illustrate biomechanical principles.

Prerequisites: ( HLTH128 AND HLTH129 ) OR ( HLTH115 )

Corequisites: None

HLTH307 Cultural Aspects of Health (Min SH: 3, Max SH: 3)

An exploration of race, ethnicity and culture as constructs of health. The course is designed to enhance cultural awareness and improve cultural competence when working with diverse populations within the United States.

Prerequisites: None

Corequisites: None

HLTH310 CPR and First Aid Instructor Training (Min SH: 2, Max SH: 2)

Students will become prepared to teach CPR and first aid skills to others. Emphasis is placed on the role of the instructor to supervise skill practice sessions. Detailed training with the CPR manikins is given. Upon successful completion of the course, students will receive American Red Cross instructor certification in CPR and first aid.

Prerequisites: ( HLTH301 )

Corequisites: None

HLTH315 Consumer Health (Min SH: 3, Max SH: 3)

Designed to promote current health literacy in relation to issues in consumer health, self-care management, and health care.

Prerequisites: None

Corequisites: None

HLTH325 Death Education (Min SH: 3, Max SH: 3)

A comprehensive view of death and dying. This course offers learning strategies designed to develop skills that facilitate dialogue among students, patients, families, and healthcare providers.

Prerequisites: ( HLTH105 )

Corequisites: None

HLTH330 School Health Programs (Min SH: 2, Max SH: 2)

Includes information and skills for planning and implementing policies and programs aligned with the Whole School, Whole Community, and Whole Child (WSCC) model.

Prerequisites: ( HLTH204 AND HLTH214 )

Corequisites: None

HLTH332 Psychological Aspects of Injury and Illness (Min SH: 3, Max SH: 3)

Designed to expose students to the psychological aspect of injury, illness, and rehabilitation. Students analyze literature related to psychological issues that can significantly impact the quality of rehabilitation and the patient's life. Various psychological factors such as motivation, confidence, anxiety, goal setting techniques, relaxation training that influence the rehabilitation process are investigated throughout this course.

Prerequisites: None

Corequisites: None

HLTH334 Teaching of Nutrition and Consumer Health (Min SH: 3, Max SH: 3)

Designed to address the basic elements of nutrition and consumer health for the health and physical education major.

Prerequisites: ( HLTH104 )

Corequisites: None

HLTH336 Teaching Drug Education (Min SH: 3, Max SH: 3)

Provides students with current, accurate, and documented information concerning drug abuse in society. Special attention will be given to drug education curriculum K-12, special school programs, community drug education programs, dysfunctional family problems related to drug abuse, and teaching strategies.

Prerequisites: ( HLTH104 AND HLTH151 AND HLTH251 ) OR ( HLTH105 AND HLTH151 AND HLTH251 ) OR ( HLTH104 AND HLTH128 AND HLTH130 ) OR ( HLTH105 AND HLTH128 AND HLTH130 ) OR ( HLTH104 AND HLTH130 AND HLTH151 ) OR ( HLTH105 AND HLTH130 AND HLTH151 ) OR ( HLTH104 AND HLTH128

Corequisites: None

HLTH341 Teaching Human Sexuality (Min SH: 3, Max SH: 3)

Intended for students interested in health education and teaching human sexuality. Course content includes the information and skills needed to facilitate the planning and implementation of human sexuality education. Emphasis is placed on topics within human sexuality that are typically included in kindergarten to grade 12 sexuality education.

Prerequisites: ( HLTH204 AND HLTH214 )

Corequisites: None

HLTH350 Health Program Planning (Min SH: 3, Max SH: 3)

Designed to develop skills relating to the development and implementation of robust health education and promotion programs. Emphasis is placed upon systematic application of commonly used planning models in health programming. Strategies for effective needs and resource assessment, collaborative community processes, intervention planning and design, and successful implementation will be reviewed.

Prerequisites: ( HLTH204 )

Corequisites: None

HLTH355 Health Program Planning and Evaluation (Min SH: 4, Max SH: 4)

Designed to develop skills relating to the development, implementation, and evaluation of robust health education and promotion programs. Strategies for effective needs and resource assessment, intervention planning and design, successful implementation and comprehensive evaluation will be reviewed.

Prerequisites: ( HLTH204 )

Corequisites: None

HLTH363 Applied Sport and Exercise Science (Min SH: 3, Max SH: 3)

Provides students the fundamentals of fitness assessment, exercise prescription, and sports nutrition from a Health Science perspective. Students will develop and apply the skills required to perform a fitness assessment and subsequent exercise prescription in the physically active population. Course content also includes the nutritional requirements for optimal exercise performance.

Prerequisites: ( HLTH353 )

Corequisites: None

HLTH401 Current Issues in Health (Min SH: 3, Max SH: 3)

An exploration of the dynamic and rapidly changing field of health. Selected current health topics drawn largely from the current popular and professional literature will be presented, evaluated, analyzed, and discussed.

Prerequisites: ( HLTH105 )

Corequisites: None

HLTH402 Evaluation in Health Education and Promotion Programs (Min SH: 3, Max SH: 3)

Explores the processes for evaluation of health education policy, projects and programs. The emphasis is placed on developing and interpreting evaluations including evaluation design, measurement and using evaluation outcomes for decision-making. Qualitative and quantitative assessments are included to provide the learner with a variety of tools to assess the efficacy of health programs.

Prerequisites: None

Corequisites: None

HLTH406 Biomechanics of Musculoskeletal Injury (Min SH: 3, Max SH: 3)

Designed to provide students in health-related professions with an advanced clinical background in the relationship between human biomechanics and musculoskeletal injury. The course examines the coordination of movement and the forces placed on various tissues of the body by physical activity, specifically in athletics and industrial work environments. Students explore various prevention/treatment interventions and are exposed to clinical problems in orthopedics, rehabilitation, and epidemiologic research.

Prerequisites: ( HLTH305 )

Corequisites: None

HLTH407 Advanced Human Physiology and Mechanisms of Disease (Min SH: 4, Max SH: 4)

Designed to explore alterations in the functioning of human organ systems, including the etiology, pathogenesis, and clinical manifestations of common disease states. Topics covered are those with significance to the biomedical professions.

Prerequisites: ( HLTH115 AND HLTH120 )

Corequisites: None

HLTH410 Applied Community and Public Health (Min SH: 3, Max SH: 3)

Designed to provide an in-depth application of competencies acquired in prerequisite courses in the Health Science-Community Health track. This course will verify the students' ability to demonstrate professional skills in assessing, planning, coordinating, advocating and evaluating health education programs and services. This course includes the knowledge and skills required by The National Commission for Health Education Credentialing, Inc.

Prerequisites: ( HLTH204 AND HLTH350 AND HLTH402 )

Corequisites: None



HLTH415 Introduction to Pharmacology (Min SH: 3, Max SH: 3)

An introductory course in pharmacology that focuses on principles of drug actions and major classes of drugs emphasizing mechanisms of action, rationale for therapeutic use, side effects, and relevant toxicities. Emphasis will be placed on pharmacotherapeutics so as to promote an understanding of the rational use of drugs in the clinical setting.

Prerequisites: ( CHEM121 AND HLTH120 ) OR ( BIOL410 )

Corequisites: None

HLTH420 Clinical Evaluation and Rehab (Min SH: 3, Max SH: 3)

Designed for those students pursuing physical or occupational therapy, physician assistant, chiropractic, or other health related professions. Principles of evaluation and treatment of orthopedic dysfunction and procedures in physical/occupational therapy, as well as instruction in proper medical note taking, are taught by both lecture and laboratory sessions. This course is designed to be taken prior to the student's field experience.

Prerequisites: ( HLTH128 AND HLTH130 AND HLTH200 AND HLTH305 ) OR ( HLTH151 AND HLTH200 AND HLTH251 AND HLTH305 )

Corequisites: None

HLTH425 Clinical Exercise Physiology (Min SH: 3, Max SH: 3)

An examination of the clinical aspects of exercise physiology emphasizing the relationships between exercise and chronic diseases and disorders. Exercise testing techniques will include electrocardiogram administration and interpretation.

Prerequisites: ( HLTH200 AND HLTH353 ) OR ( ATTR260 )

Corequisites: None

HLTH430 Women's Health Issues (Min SH: 3, Max SH: 3)

Addresses relevant issues regarding women's health and puts this knowledge to use. Provides a forum for the presentation of medical and scientific information on the health needs of women. For the context of this course, women's health issues are defined as any matters that affect women's health differently from that of men.

Prerequisites: ( HLTH105 ) OR ( HLTH154 ) OR ( HLTH104 )

Corequisites: None

HLTH440 Research in the Health Sciences (Min SH: 3, Max SH: 3)

An orientation to research and evaluation for students in the health sciences. The emphasis is placed on evaluating research design and statistical analysis for professionals in the health science field. Students will develop and present a research proposal on a health science topic of interest.

Prerequisites: ( MATH107 )

Corequisites: None

HLTH451 Advanced Human Anatomy (Min SH: 4, Max SH: 4)

A study of the gross anatomical relationships between major structures, organs, vessels, and nerves. Human cadaver observation and dissection of all major systems of the body will be conducted by students and included in the laboratory sessions.

Prerequisites: ( BIOL107 AND HLTH120 )

Corequisites: None

HLTH470 Sex Education for the Health Sciences (Min SH: 3, Max SH: 3)

An examination of human sexuality from a health and medical perspective. Emphasis is placed on sexual anatomy and physiology, sexual health, effects of medical conditions on sexual functioning and other related issues in the health sciences.

Prerequisites: ( HLTH105 AND HLTH120 )

Corequisites: None

HLTH490 Health Science Capstone (Min SH: 1, Max SH: 1)

Designed to be a culminating educational experience for the health science student, the health science capstone course integrates coursework, knowledge, skills and experiential learning to enable the student to demonstrate a broad mastery of learning across the curriculum. The course provides an opportunity to integrate previous courses and experiences in and outside of the health science major.

Prerequisites: ( HLTH440 ) OR ( HLTH404 ) OR ( ATTR404 )

Corequisites: None

HLTH498 Health Science Seminar (Min SH: 1, Max SH: 3)

An analysis of topics related to health science within a framework provided by the instructor. Examples include but are not limited to: contemporary issues in healthcare; a comparative analysis of healthcare systems in different countries; health issues related to population, economics, social and other factors; healthcare issues of special populations; the healthcare crisis in the United States; and emerging healthcare technologies and fields.

Prerequisites: None

Corequisites: None

HONR101 Ethics-Historical and Global Perspectives (Min SH: 3, Max SH: 3)

Exposes students to a wide variety of ethical theories and moral conventions from different cultures and ages. Students will learn to appreciate diverse perspectives on ethical issues, to evaluate the moral reasoning behind them, and to write a well-researched paper on Ethical theories and their cultural milieu.

Prerequisites: None

Corequisites: None

HONR102 Global Honors: World History 2 (Min SH: 3, Max SH: 3)

A survey of world history from the early modern period to the present. Its central focus is the gradual integration of diverse populations as global contact expanded during the period in question. Students consider the construction of historical periodization from a multi-cultural perspective while examining a variety of themes that illuminate the interaction of cultures through conflict and cooperation.

Prerequisites: None

Corequisites: None

HONR105 Honors: Mathematics in Contemporary Society (Min SH: 3, Max SH: 3)

This course presents a variety of mathematical topics that are relevant to contemporary intelligent citizenship. The chosen topics will be studied in detail through guided experimentation, discovery, conjecture formulation, and analysis. Collaborative learning will be emphasized throughout the course. This course is open to any student in the Honors Program.

Prerequisites: None  
Corequisites: None

#### HONR107 Global Politics (Min SH: 3, Max SH: 3)

An introduction to the field of international relations. The course reviews the evolution of the modern international system and introduces basic theories and models used by political scientists and others in analyzing world politics. Primacy emphasis on the post-Cold War "world order" and major issues confronting the international state system.

Prerequisites: None  
Corequisites: None

#### HONR110 Honors: Concepts in Biological Sciences (Min SH: 3, Max SH: 3)

An inquiry-based introductory-level course designed to explore biology from cellular to ecosystem levels within an evolutionary framework. Classroom and laboratory activities are intended to familiarize students with key concepts in biology including the scientific method, diversity of life, cellular division, function of organ systems and organisms, and ecological systems.

Prerequisites: None  
Corequisites: None

#### HONR112 Global Honors: Introduction to Literature (Min SH: 3, Max SH: 3)

An introduction to fiction, poetry, drama, and creative nonfiction that seeks to develop the student's understanding of literature on a global scale.

Prerequisites: None  
Corequisites: None

#### HONR115 Honors: Earth Resources and Environment (Min SH: 3, Max SH: 3)

An inquiry-based introductory-level course designed to explore occurrences, distribution, and uses of Earth resources, including minerals, rocks, soil, energy, and water. Environmental degradation resulting from exploration and exploitation of Earth resources will be investigated in the context of historical development in central Pennsylvania. The concept of sustainable development of natural resources and land will be examined through lecture, laboratory exercises, field observations, and hands-on experience with field and laboratory equipment commonly used by geoscientists.

Prerequisites: None  
Corequisites: None

#### HONR180 Honors: Introduction to Psychological Science (Min SH: 3, Max SH: 3)

Introduces students to the field of psychology, the scientific study of behavior, including actions, thoughts, and feelings.

Prerequisites: None  
Corequisites: None

#### HONR200 Global Honors: Nutrition for Wellness (Min SH: 3, Max SH: 3)

Designed to explore fundamental knowledge of contemporary nutrition practices. The course emphasizes the multi-directional relationships between nutrition and physical, social, emotional, environmental, and intellectual dimensions of wellness. As part of the Global Honors curriculum, additional emphasis will be given to exploring nutrition problems presented in the scientific literature. The course specifically targets students' personal eating habits, an understanding of societal and cultural influences on those habits, as well as the health consequences of those habits.

Prerequisites: None

Corequisites: None

#### HONR303 Honors: Argumentation and Debate (Min SH: 3, Max SH: 3)

Designed to improve analytical skills in the construction of arguments, debating skills in defending those arguments, and critical listening skills needed to analyze and evaluate the arguments of others. Students will study thinking, argumentation, and their practical application to extemporaneous debate.

Prerequisites: None

Corequisites: None

#### HONR328 Liberal Arts Seminar (Min SH: 3, Max SH: 3)

A thematic approach to issues of global significance. The course helps students recognize the impacts of personal and collective actions. Seminar topics foster awareness of the interconnections among peoples, landscapes, and societies across cultures and global regions. Possible topics include the following: climate change; food supplies among diverse populations; free and fair trade issues; healthcare access; war and global populations; invasive species; incarceration across the world; mourning rituals in different countries and cultures.

Prerequisites: None

Corequisites: None

#### HPED014 Aerobics 1 (Min SH: 1, Max SH: 1)

Aerobic fitness concepts and beginning level aerobic exercise.

Prerequisites: None

Corequisites: None

#### HPED102 Foundations of Physical Education Seminar (Min SH: 2, Max SH: 2)

Designed as an orientation to the culture and mission of the university and to the physical education profession. Students are encouraged to explore the purpose of a college education within an academic discipline and are introduced to learning strategies and study skills for success in the major. This includes the nature and scope of the field, underlying scientific principles, a brief historical background, qualities of and the role of successful professionals, and field experiences. Students start a professional portfolio. Class discussion, active learning, common co-curricular activities, service and/or civic opportunities are incorporated to promote connection with fellow students, faculty, university and the community.

Prerequisites: None

Corequisites: None

#### HPED103 Teaching Soccer (Min SH: 0.5, Max SH: 0.5)

Designed as an activity course involving knowledge, fundamental skills, strategy and rules of soccer. Emphasis is placed on skill learning, performance analysis, and progressions. This activity course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self evaluations. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED105 Teaching Basketball (Min SH: 0.5, Max SH: 0.5)

Primarily an activity course involving a progression in basketball skills. The course includes an emphasis on skill progressions, teaching methods, strategy, and rules for the game of basketball. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED107 Teaching Field Hockey (Min SH: 0.5, Max SH: 0.5)

Designed as an activity course involving knowledge, fundamental skill, strategy and rules of the game of field hockey. The emphasis of this course is on skill learning, performance analysis, and progression. Additionally, the course encompasses teaching methods and class management and safety for appropriate age groups. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED109 Teaching Wrestling (Min SH: 0.5, Max SH: 0.5)

A methods and activity course involving teaching and learning fundamental wrestling skills and progressions. The course includes an emphasis on skill progressions, teaching methods, strategy rules, and skill analysis for the sport of wrestling.

Prerequisites: None  
Corequisites: None

#### HPED111 Teaching Racquet Sports (Min SH: 1, Max SH: 1)

A combination methods-activity course involving teaching and developing skill progression in tennis, badminton, racquetball and pickleball. The subject matter includes the basic skills, skill analysis of performance, teaching strategies, class organization, safety, lead-ups, game play, rules, and strategies of the games. In addition, the course provides students with the knowledge and skills of self-evaluation of teaching performance and peer evaluation. It is designed to meet the National Association of Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED112 Teaching Fundamental Movements and Rhythms (Min SH: 0.5, Max SH: 0.5)

Emphasizes the execution and analysis of basic movement patterns, rhythm and its relationship through an overall basic movement education approach. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED114 Aerobics 2 (Min SH: 1, Max SH: 1)

Advanced aerobic conditioning principles and exercises.

Prerequisites: None

Corequisites: None

HPED115 Teaching Invasion Sports 1 (Min SH: 3, Max SH: 3)

A methods course with a lab involving knowledge, fundamental skills, strategy and rules of soccer, football, and hockey. Emphasis is placed on skill learning, performance analysis, and progressions. This methods/lab course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self-evaluations.

Prerequisites: None

Corequisites: None

HPED119 First Year Seminar for Health and Physical Education Students (Min SH: 1, Max SH: 1)

Designed to embed education program requirements into a required course and to support student achievement of Education program requirements.

Prerequisites: None

Corequisites: None

HPED120 Teaching Baseball and Softball (Min SH: 0.5, Max SH: 0.5)

Designed to teach the fundamental skills, strategies, and rules of baseball and softball and the techniques and methods of teaching these to students. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED125 Teaching Invasion Sports 2 (Min SH: 3, Max SH: 3)

A methods course with a lab involving knowledge, fundamental skills, strategy and rules of basketball, team handball, and ultimate frisbee. Emphasis is placed on skill learning, performance analysis, and progressions. This methods/lab course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self-evaluations.

Prerequisites: None

Corequisites: None

HPED128 Judo (Min SH: 1, Max SH: 1)

Introduction to beginning judo skills.

Prerequisites: None

Corequisites: None

HPED130 Teaching Net Sports (Min SH: 3, Max SH: 3)

A methods course with a lab involving knowledge, fundamental skills, strategy and rules of tennis, badminton, and volleyball. Emphasis is placed on skill learning, performance analysis, and progressions. This methods/lab course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self-evaluations.

Prerequisites: None  
Corequisites: None

HPED133 Intermediate Swimming (Min SH: 1, Max SH: 1)

For swimmers who wish to learn or improve stroke skills and aquatic fitness.

Prerequisites: None  
Corequisites: None

HPED134 Swimming/Emergency Water Safety (Min SH: 1, Max SH: 1)

This Swimming/Emergency Water Safety course in advanced swimming techniques is designed to enable the students to become proficient in basic swimming strokes and related aquatic skills. The students will also develop fundamental water safety skills. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

HPED140 Wellness for Life (Min SH: 3, Max SH: 3)

Introduction to the interdependence of personal wellness and fitness. Students will gain the knowledge and skills necessary to develop a proactive approach to a wellness-oriented lifestyle. Emphasis will be placed on the development of a personal understanding of exercise options and their relevancy to health risk management. Students will also be introduced to health risk and fitness appraisal techniques.

Prerequisites: None  
Corequisites: None

HPED145 Globalization and Cultural Differences in Sports (Min SH: 3, Max SH: 3)

Designed to examine sports and its relationship to cultural, political, international, and/or global practices. Students will analyze how sports impact societal values and actions around the world.

Prerequisites: None  
Corequisites: None

HPED160 Coaching Methods and Application (Min SH: 3, Max SH: 3)

Designed to explore the science behind coaching, including pedagogy, sport skill analysis, nutrition, strength and conditioning, and care and prevention of injuries.

Prerequisites: None  
Corequisites: None

HPED162 Principles of Coaching (Min SH: 3, Max SH: 3)

Designed to explore the foundation and methods of coaching. Major concepts such as coaching philosophy, budget, team management, motivation, problems in coaching and ethics and legal issues, will be investigated.

Prerequisites: None

Corequisites: None

#### HPED200 Teaching Aerobics (Min SH: 0.5, Max SH: 0.5)

Designed to involve students with organizational procedures, teaching progressions, safety factors, components of low-impact aerobics, step aerobics and circuit aerobic workouts (abdominal exercises, resistance bands, hand weights, jump ropes, etc.). It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

#### HPED204 Psychological and Social Dimensions of Physical Activity and Sport (Min SH: 2, Max SH: 2)

Designed to introduce psychological and sociological dimensions of sport and physical activity as they relate to roles as teachers of physical activity and sport in educational settings. Students will be required to relate psychological and sociological principles of physical activity to curriculum and program development, teaching style and methods, and positive learning environments for sport and physical activity. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

#### HPED206 Teaching Lacrosse (Min SH: 0.5, Max SH: 0.5)

Designed as an activity course involving knowledge, fundamental skills, strategy and rules of lacrosse. Emphasis is placed on skill learning, performance analysis, and progressions. This activity course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self evaluations. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

#### HPED210 Teaching Rhythmic Activities and Dance (Min SH: 2, Max SH: 2)

An introduction to basic movement patterns, rhythm, and dance through a variety of rhythmic activities that are evident in the traditions of many ethnic cultures. Emphasis is placed on the teaching techniques used for movement patterns and dance in grades K-12 and for adult recreation. This course meets The Society for Health and Physical Educators (SHAPE) standards for accreditation.

Prerequisites: None

Corequisites: None

#### HPED213 Methods for Teaching Elementary Physical Education (Min SH: 3, Max SH: 3)

Teaching methods course with a lab involving elementary physical education curriculum. Emphasis is placed upon teaching techniques and safety procedures presented and practiced in peer teaching experiences. Developmental characteristics of children will be integrated into current curricular trends. Students will build a repertoire of elementary physical education activities selected from various categories. This course meets the National Association for Sport and Physical Education (NASPE) standards for accreditation.



Prerequisites: None  
Corequisites: None

#### HPED214 Teaching Lifetime Activities (Min SH: 2, Max SH: 2)

A methods course with a lab involving knowledge, fundamental skills, strategy and rules of lifetime activities such as golf, archery, bowling, and softball. Emphasis is placed on skill learning, performance analysis, and progressions. This methods/lab course encompasses teaching methods, class management, and safety appropriate for all grade levels. Students will complete peer and self-evaluations.

Prerequisites: None  
Corequisites: None

#### HPED215 Teaching Track (Min SH: 1, Max SH: 1)

Designed to prepare the student with an understanding of and skill proficiency in track and field events. Skill analysis and teaching techniques will be stressed. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED218 Teaching Tumbling and Gymnastics (Min SH: 0.5, Max SH: 0.5)

Emphasizes developmentally appropriate skills for ages Kindergarten through 8th grade. Content includes progressions, teaching methods, assessment, basic mechanical principles and spotting. The students will demonstrate minimal competencies in skill execution. The course will provide opportunities for skill analysis, peer teaching, and writing a lesson plan. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED225 Swimming/Lifeguard Training (Min SH: 1, Max SH: 1)

Designed to train lifeguard personnel to develop the knowledge and skills required to provide the safest water safety conditions for the patrons of public and private aquatic facilities. Students have the opportunity to become certified in American Red Cross Lifeguarding, CPR & Automated External Defibrillation (CPR/AED) for the Professional Rescuer (PR), Oxygen Administration, First Aid, and Waterfront Lifeguarding. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None  
Corequisites: None

#### HPED226 Techniques of Coaching Volleyball (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective volleyball coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None  
Corequisites: None

#### HPED228 Synchronized Swimming (Min SH: 0.5, Max SH: 0.5)

Students are introduced to the components of synchronized swimming with an emphasis on sculling, stroke adaptation and figure execution. Basic choreographic techniques are also explored. Students must have the ability to swim in deep water and knowledge of the basic swimming strokes: front crawl, sidestroke, backstroke, breaststroke, and elementary backstroke.

Prerequisites: None

Corequisites: None

HPED230 Aquacise (Min SH: 0.5, Max SH: 0.5)

The students are introduced to a lifetime sport exercise option utilizing the aquatic medium. Exercise areas, such as free-standing water drills, pool side standing drills, circuit training, running, and relaxation techniques, are emphasized. Students must have ability to swim in deep water and knowledge of the basic swimming strokes: front crawl, sidestroke, backstroke, breaststroke, and elementary backstroke.

Prerequisites: None

Corequisites: None

HPED234 Water Safety Instructor (Min SH: 1, Max SH: 1)

Designed to train the student to teach the following American Red Cross (ARC) courses: 1) Parent & Child Aquatic Program; 2) Longfellow's Whale Tales Educational Program; 3) Progressive Swimming Courses (levels I-VI); 4) Water Safety Outreach Program; and 5) Safety Training for Swim Coaches. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED240 Intro to Physical Education and Sport in the Correctional Facility (Min SH: 3, Max SH: 3)

Examines the nature and scope of physical education and sport along with their allied disciplines in the correctional facility. An introduction to the study of physical education and sport in the correctional environment will be conducted at the local, state and federal levels. Students will be introduced to an overview of the principles of managing physical education and sport programs in the correctional facility environment. The various philosophies, principles of program design, selection of intramural and varsity sports, equipment procuring and facility management, budget and finance, routine procedures, law and legal liability, staff selection and organization, health, fitness, wellness and recreational pursuits will be reviewed.

Prerequisites: None

Corequisites: None

HPED245 Health and Physical Education in the Elementary School (Min SH: 3, Max SH: 3)

Students will gain the knowledge and skills necessary to develop a proactive approach to a positive, vigorous, and wellness-oriented lifestyle. The course will focus on the health content and process of the instructional phase of the health and physical education program in the elementary school through classroom and laboratory activities.

Prerequisites: None

Corequisites: None

HPED255 Teaching Fitness in K-12 Schools (Min SH: 3, Max SH: 3)

A methods course with a lab providing students with health-related physical fitness theory and content that will prepare them to work with K-12 students in physical education lessons. The course will also prepare students to use current technology for

physical activity/wellness engagement and for assessing health and fitness status and physical activity/wellness engagement levels.

Prerequisites: ( HPED102 )

Corequisites: None

#### HPED260 Principles and Practices of Conditioning (Min SH: 1, Max SH: 1)

Designed to acquaint the future teacher/coach with the principles of teaching physical conditioning. Students are provided with a practical experience in program design and implementation. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

#### HPED262 Techniques of Coaching Basketball (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective basketball coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, and philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None

Corequisites: None

#### HPED263 Techniques of Coaching Soccer (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective soccer coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, and philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None

Corequisites: None

#### HPED264 Techniques of Coaching Softball (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective softball coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, and philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None

Corequisites: None

#### HPED265 Techniques of Coaching Tennis (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective tennis coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, and philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None

Corequisites: None

#### HPED266 Techniques of Coaching Track and Field (Min SH: 1, Max SH: 1)

Introduces the various skills, knowledge and disposition needed to become a qualified and effective track and field coach at the high school and college levels. Major concepts as they relate to organization and administration, teaching of fundamental skills, skills analysis, coaching personalities, styles, and philosophies, and psychological aspects of coaching will be explored.

Prerequisites: None

Corequisites: None

HPED301 Advanced Techniques and Coach Field Hockey (Min SH: 1, Max SH: 1)

Advanced techniques of modern field hockey. Consideration of the field hockey player as an athlete. Includes theoretical and practical work.

Prerequisites: ( HPED107 )

Corequisites: None

HPED302 Motor Learning Applied to Physical Education (Min SH: 3, Max SH: 3)

Introduces various theories and principles explaining motor behavior, psychological factors related to or affecting motor skill acquisition and performance. Emphasis is placed on the application of practice, skill transfer, memory, feedback including knowledge of results, knowledge of performance, neuromotor functioning, and differences in motor abilities that are involved in motor skill performance. This will be achieved through involvement in lectures, theories, laboratory tasks, and demonstrations.

Prerequisites: ( HLTH353 AND HPED352 )

Corequisites: None

HPED303 Advanced Techniques and Coaching Football (Min SH: 1, Max SH: 1)

Advanced techniques for coaching football. Designed to teach students in areas such as organization, administration, philosophy, teaching fundamentals, player evaluation and player-coach relationships.

Prerequisites: ( HPED202 )

Corequisites: None

HPED306 Advanced Techniques Coaching Track (Min SH: 1, Max SH: 1)

The philosophical, training and technical aspects of coaching all events of track and field. Also teaches the mechanics of organizing and running a home track meet including all events.

Prerequisites: ( HPED215 )

Corequisites: None

HPED308 Advanced Techniques and Coaching Baseball (Min SH: 1, Max SH: 1)

This course is designed to aid in development of a specific philosophy of coaching baseball. The course will also be designed to prepare the student for specific problems including: teaching fundamentals, techniques, organization, responsibilities, coach-administration, coach-parent, coach-player relationships, and basic coaching ethics.

Prerequisites: ( HPED105 )

Corequisites: None

HPED310 Health/PE Professional Semester Techniques & Strategies Teaching (Min SH: 3, Max SH: 3)

Orient the students to the principles of a good physical education program. Special attention given to pedagogy and progressions that will lead to effective learning of physical activities. Application of the theory and methods is made during in-class teachings and participation in the public schools. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED311 Health/PE Professional Semester: Teaching Health (Min SH: 3, Max SH: 3)

An introduction to classroom teaching techniques in Health Education. Students gain experience in constructing units of instruction and in using a variety of teaching aids/strategies to enhance the teaching/learning process. Required for Health and Physical Education certification. Focuses on learning styles and active learning strategies. It is designed to meet the National Association for Sport and Physical Education (NASPE) and the American Association for Health Education (AAHE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED314 Health/PE Professional Semester: Measurement for Evaluation in Health and Physical Education (Min SH: 3, Max SH: 3)

Designed to equip students with basic knowledge of statistical concepts and evaluation techniques used in health and physical education. Emphasis will be placed on how to measure performance, and the use of performance data to improve learning. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED315 Advanced Techniques and Coaching Softball (Min SH: 1, Max SH: 1)

Designed to prepare the student to teach advanced skills and strategy, to analyze form and efficiency of movement and to handle athletes in competitive situations in softball.

Prerequisites: ( HPED120 )

Corequisites: None

HPED316 Advanced Techniques and Coaching Volleyball (Min SH: 1, Max SH: 1)

Advanced techniques, strategies and patterns of play for power volleyball. Theoretical and practical application of playing and officiating techniques.

Prerequisites: None

Corequisites: None

HPED325 Teaching Nutrition (Min SH: 1.5, Max SH: 1.5)

Health and Physical Education majors will explore teaching and curricular concepts in nutrition as part of a Health Education program. Students will apply their base knowledge of nutrition in the development of teaching units, which emphasize good health promotion practices.

Prerequisites: None

Corequisites: None

HPED350 Advanced Techniques and Coaching Swimming/Diving (Min SH: 2, Max SH: 2)

Prepares student with background and understanding of all areas for teaching and coaching competitive swimming and diving. In-depth attention given to competitive rules and regulations, swimming programs, and all individual skills; psychology of coaching swimmers and divers; types of training programs, pacework, and mechanical principles involved in swimming.

Prerequisites: None

Corequisites: None

HPED351 Management of Aquatic Programs and Facilities (Min SH: 2, Max SH: 2)

Students are introduced to the role of aquatic facilities in schools, communities and agencies. The planning and design of aquatic facilities are explored as well as basic management and operations.

Prerequisites: None

Corequisites: None

HPED352 Kinesiology (Min SH: 2, Max SH: 2)

Designed to increase one's understanding of human movement and to provide the foundation for critical application of analysis of physical activity and exercise. The course content includes both anatomical and biomechanical concepts. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: ( HLTH122 ) OR ( HLTH128 )

Corequisites: None

HPED400 Professional Development (Min SH: 1, Max SH: 1)

Facilitate authentic learning experiences for pre-service health and physical education majors. Students observe and participate in school health and physical education settings, K-12. Students develop a professional portfolio supporting their experiences and professional philosophy. Community professionals and resources are used to complement the learning experience through the presentation of seminar-practicum related to current teaching tools each week. This course meets the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED410 Sociology of Sport (Min SH: 3, Max SH: 3)

Students are introduced to the role of sport in society including issues in politics, economics, women's concerns, racism, media and social problems of athletes. Special attention will be given to current issues in society and their effect on and by sport.

Prerequisites: None

Corequisites: None

HPED425 Elementary Student Teaching and Professional Practicum (Min SH: 6, Max SH: 6)

The capstone experience for pre-service teachers. Two student teaching experiences are provided at two levels, elementary and secondary. Supervised practice in classroom with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the students and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

HPED426 Practicum in Health and Physical Education (Min SH: 2, Max SH: 2)

Taken concurrently with HPED425, this course provides the forum for discussing problems common to all student teachers and possible solutions to these problems. Skills involved with obtaining a teaching position are also practiced and discussed.

Prerequisites: None

Corequisites: None

HPED427 Secondary Student Teaching and Professional Practicum (Min SH: 6, Max SH: 6)

The capstone experience for pre-service teachers. Two student teaching experiences are provided at two levels, elementary and secondary. Supervised practice in classroom with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the students and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

HPED450 Physical Education Professional Field Experience (Min SH: 6, Max SH: 12)

A field experience designed to provide students with on-the-job experience in a variety of physical education-related, professional on-site operations. Students will learn from professionals in the field and be exposed to programs, procedures, and settings. Supervision is provided by both university faculty and the cooperating agency. Experiences may take place in public and private agencies, schools, and athletic settings.

Prerequisites: None

Corequisites: None

HPED463 Organization and Administration of HPER (Min SH: 3, Max SH: 3)

Designed to explore the philosophy of health and physical education, leadership skills, facilities and equipment management, personnel management, budgeting, risk management, public relations, marketing, consultation, and current issues. Students will be guided in the preparation of position papers, research reports, and presentations on topics covered with the intent of providing realistic pre-professional experiences in the field. It is designed to meet the National Association for Sport and Physical Education (NASPE) standards for accreditation.

Prerequisites: None

Corequisites: None

HPED494 Secondary Student Teaching and Professional Practicum (Min SH: 6, Max SH: 6)

Provides the capstone experience for pre-service teachers through two student teaching experiences at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers and regular practicum sessions introduce the student to the range and scope of a professional educator's responsibilities. University professors supervise the student teachers and facilitate weekly practicum sessions.

Prerequisites: None

Corequisites: None

HUM119 First Year Student Seminar (Min SH: 1, Max SH: 1)

Introduces the culture and mission of the university within the context of an academic discipline. Students are encouraged to explore the purpose of a college education and are provided an opportunity to become engaged with an academic discipline. Students are introduced to learning strategies and study skills. Common activities and the incorporation of a peer mentor component facilitate connection with fellow students, faculty, the university and the community.

Prerequisites: None

Corequisites: None

#### LANG119 First Year Seminar for Foreign Language Students (Min SH: 1, Max SH: 1)

An introduction to the Lock Haven University Teacher Education Conceptual Framework and national standards for foreign language and English. The course guides students through the Stage I teacher education requirements and early field experience tasks, and addresses topics taught in generic freshman seminars.

Prerequisites: None

Corequisites: None

#### LANG125 Introduction to Cultures (Min SH: 3, Max SH: 3)

An introduction to the people and cultures of a specific country or geographical area. Through lectures, discussions, and an array of visual materials, the course, taught in English, addresses such topics as traditions, religious practices, major historical events, social and political trends, language, film, cuisine, theatre and music, as well as literature. (Course may be taken multiple times and not count as a repeat.)

Prerequisites: None

Corequisites: None

#### LANG207 Secondary Education 1: Foreign Language (Min SH: 3, Max SH: 3)

Course description is missing.

Prerequisites: None

Corequisites: None

#### LANG313 Secondary Education 2: Foreign Language (Min SH: 4, Max SH: 4)

Course description is missing.

Prerequisites: None

Corequisites: None

#### LANG328 Seminar-Humanities (Min SH: 3, Max SH: 3)

Language Seminar

Prerequisites: None

Corequisites: None

#### LANG416 Student Teaching and Practicum Secondary 2: Foreign Language (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers



introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

#### MANG101 Introduction to Management Information Systems (Min SH: 3, Max SH: 3)

Provides an introduction to Management Information Systems (MIS) including management concepts and the use of information and information technologies within and between business organizations. It provides students with the tools and background to understand and interpret information issues from a managerial perspective.

Prerequisites: ( COMP150 )

Corequisites: None

#### MANG105 Introduction to Business (Min SH: 3, Max SH: 3)

Introduces Business and Accounting majors to the university learning environment, effective learning strategies and study skills, their chosen program of study, and career choices in the field. The course addresses each business function, and provides fundamental understanding needed for more advanced courses in the field of business.

Prerequisites: None

Corequisites: None

#### MANG220 Personal Financial Management (Min SH: 3, Max SH: 3)

An introduction to personal financial planning concepts and techniques. Financial planning for decision making and comprehensive lifetime money management are emphasized. The course is a major elective for students majoring in Business Administration or Accounting.

Prerequisites: None

Corequisites: None

#### MANG302 Business Law 1 (Min SH: 3, Max SH: 3)

Introduces students to the US legal system and fundamental principles of business law, particularly in the areas of contract law, tort law, criminal law, constitutional law, intellectual property law, sales law, and employment law.

Prerequisites: None

Corequisites: None

#### MANG305 Operations/Production Management (Min SH: 3, Max SH: 3)

Introduces students to the operations and production functions of a business or organization. Topics in managing and designing operations will be investigated both conceptually and quantitatively

Prerequisites: ( COMP250 AND MATH180 ) OR ( COMP250 AND MATH141 )

Corequisites: None

#### MANG307 Budgeting Theory and Practice (Min SH: 3, Max SH: 3)

An advanced seminar focusing on budgeting practices and theories. The central purpose is to develop an understanding of the institutional arrangements, issues, and processes involved in budgeting of resources in private, governmental, and non-profit organizations. Students will develop and improve their analytical skills, giving them the ability to function in careers in financial analysis and budgeting.

Prerequisites: ( ACCT115 AND COMP150 )

Corequisites: None

MANG317 Entrepreneurship (Min SH: 3, Max SH: 3)

An examination of the organization, implementation, and management of firms in terms of innovation with an emphasis on creating, planning, and development phases of entrepreneurial activities.

Prerequisites: ( MANG315 AND MRKT200 )

Corequisites: None

MANG320 Human Resource Management (Min SH: 3, Max SH: 3)

A knowledge and skill-based examination of issues, policies, and practices that deal with the management, needs, and activities of the organization's people. Topics include the study of workforce planning, recruiting, selection, job analysis, employee appraisal, training and development, compensation, employee relations, workplace safety, international differences, and legal constraints that impact human resource management.

Prerequisites: ( MANG315 )

Corequisites: None

MANG322 Innovation (Min SH: 1, Max SH: 1)

An introduction to innovation. Students will learn where and how to find new venture ideas, and how to evaluate them. Included will be various forms of differentiations from existing products, services, processes, and target customers.

Prerequisites: None

Corequisites: None

MANG325 Financial Management (Min SH: 3, Max SH: 3)

Introduces students to the concepts of financial management with emphasis on the corporate sector. Financial analysis techniques are demonstrated for both short- and long-term planning and control within the firm.

Prerequisites: ( ACCT110 AND ECON102 AND ECON103 )

Corequisites: None

MANG326 Fundamental of Investment Management (Min SH: 3, Max SH: 3)

An introduction to investments including investment analysis, portfolio management, and capital markets. Designed to provide the basic concepts and principles of investing, the course examines investment policies, types of securities, factors that influence price changes, timing purchases/sales preparing investment programs to meet objectives, investment risk and return, and portfolio balancing.

Prerequisites: ( MANG325 )

Corequisites: None

MANG342 Fundamentals of Management Science (Min SH: 3, Max SH: 3)

Introduces students to Operations Research/Management Science (OR/MS) and its application to improving managerial decision-making. The focus will be on developing models of business problems and generating solutions using software applications. Course topics include application of linear programming, integer programming, and network, queuing, and simulation models to business problems.

Prerequisites: ( COMP235 )

Corequisites: None

MANG345 Sustainability Entrepreneurship (Min SH: 3, Max SH: 3)

Investigates entrepreneurial opportunities created by environmental and social degradation. Students will learn to identify opportunities that offer feasible, sustainable growth potential and will develop strategies for starting and running a sustainable business.

Prerequisites: ( MANG317 )

Corequisites: None

MANG347 Funding an Entrepreneurial Venture (Min SH: 1, Max SH: 1)

An examination of the primary sources of entrepreneurial funding: family, friends, patrons, venture capitalists, crowdfunding, banks and the Small Business Administration (SBA). Students will learn the difference, for each of these groups, in what is required, the documentation necessary, and the steps needed for success.

Prerequisites: None

Corequisites: None

MANG348 How to Hire, Fire, Train, and Handle Regulations (Min SH: 1, Max SH: 1)

An introduction to understanding human resource management issues, policies, and practices. Topics include the study of recruiting, performance appraisal, training, equal opportunity and employment law.

Prerequisites: ( MANG315 AND MANG317 )

Corequisites: None

MANG350 Small Business Management (Min SH: 3, Max SH: 3)

Designed to help students develop practical knowledge and skills needed to think and operate as successful small business practitioners. Management process skills critical to successful performance will be covered. The course is structured in three parts: one on franchises, one on family businesses, and one on firm valuation.

Prerequisites: ( MANG315 AND MANG317 )

Corequisites: None

MANG352 Organizational Behavior (Min SH: 3, Max SH: 3)

Integrates management concepts and strategies with the study of individual, group, and managerial behavior in organizations. Students will prepare for managerial and leadership roles in modern organizations. Topics include personality, values, perception, emotional intelligence, job satisfaction, communication, motivation, culture, conflict, stress, and power/politics.

Prerequisites: ( MANG315 )

Corequisites: None

MANG355 Social Entrepreneurship (Min SH: 3, Max SH: 3)

Introduces concepts, opportunities, and challenges in applying business and private sector practices to solve social, cultural, or environmental problems. Topics include social and environmental problems, entrepreneurial solutions and applications, management skills for social entrepreneurial organizations, social performance measurement, and microfinance.

Prerequisites: ( MANG317 )

Corequisites: None

MANG360 Finance and Accounting for Small Business (Min SH: 3, Max SH: 3)

An examination of foundational concepts of financial management and accounting issues specific to small businesses. Students will review capital budgeting and working capital management theories and apply them to small business problems via the case study method. The course also explores valuation of the small business with limited information, the venture capital process, and more traditional sources of debt financing.

Prerequisites: ( MANG325 )

Corequisites: None

MANG400 Business, Society and Government (Min SH: 3, Max SH: 3)

Explores the interdependent relationship between business, society, and government, with emphasis on the social responsibilities and ethical problems related to management.

Prerequisites: ( MANG315 )

Corequisites: None

MANG430 International Financial Management (Min SH: 3, Max SH: 3)

Exploration of contemporary economics and financial events trends in the context of a multinational corporation. Students are introduced to advanced concepts including financing international business operations and investments, decision making in the multinational firm, the international monetary system, foreign exchange transactions, and international financial institutions.

Prerequisites: ( MANG325 )

Corequisites: None

MANG475 Capstone Seminar in Strategic Management (Min SH: 3, Max SH: 3)

Explores major concepts and topics of the field of strategic management. As a capstone seminar, it is an integrating experience in which students apply knowledge and skills gained from previous coursework in the functional areas of business.

Prerequisites: ( MANG325 )

Corequisites: None

MANG480 Topics in Business (Min SH: 3, Max SH: 3)

An in-depth exploration of a topic in business, management, or finance. Topics will be determined prior to the semester in which the course is offered.

Prerequisites: None

Corequisites: None

MATH009 Computational Skills (Min SH: 3, Max SH: 3)

An arithmetic or pre-algebra course that is intended for students who need to improve their basic computational skills. It contains work with whole numbers, fractions, decimals, ratios and proportions, percents, descriptive statistics, geometry and measures, signed numbers, and solving simple equations and problems.

Prerequisites: None

Corequisites: None

MATH100 Essentials of Algebra (Min SH: 3, Max SH: 3)

A one-term introductory algebra course intended for students who have a firm background in arithmetic but need to improve their algebra skills in preparation for general education mathematics courses. It covers real and rational numbers and algebraic expressions, solving equations and inequalities, polynomials, graphs, systems of equations, radicals, and quadratic equations.

Prerequisites: ( MATH009 )

Corequisites: None

MATH101 Topics in Math (Min SH: 3, Max SH: 3)

A presentation of topics from number theory, topology, set theory, algebra, and analysis. Each of the topics included in the course is subjected to careful mathematical analysis.

Prerequisites: ( MATH009 )

Corequisites: None

MATH102 Number Systems (Min SH: 3, Max SH: 3)

A presentation of the mathematical ideas and skills for teachers of grades K-8. Topics included in Number Systems are problem solving, sets and relations, systems of numeration, number systems, and consumer mathematics.

Prerequisites: ( MATH100 ) OR ( MATH112 ) OR ( MATH113 ) OR ( MATH141 ) OR ( MATH215 )

Corequisites: None

MATH108 Basic Statistics 2 (Min SH: 3, Max SH: 3)

The major topics are regression and analysis of variance. Multiple regression, along with both one and two-way analysis of variance, are studied.

Prerequisites: ( MATH107 )

Corequisites: None

MATH110 Consumer Math (Min SH: 3, Max SH: 3)

A practical course designed to provide the student with information and computational skills necessary for money management. Topics include: interest, taxes, buying, credit, banking, insurance, annuities, international business, investments, and financial planning.

Prerequisites: ( MATH009 )

Corequisites: None

MATH112 Intermediate Algebra (Min SH: 3, Max SH: 3)

Assists students in acquiring a thorough knowledge and proficiency in college algebra. The contents of the course includes an introduction to sets of real numbers and properties, polynomial and rational expressions, rational exponents and radicals, equations and inequalities, complex numbers, and the Cartesian coordinate system. It also introduces the concept of functions and their graphs. The presentation of topics is balanced between theory and application.

Prerequisites: ( MATH100 )

Corequisites: None

MATH113 Precalculus (Min SH: 3, Max SH: 3)

An introduction to concept of functions and study of several elementary functions. The contents of the course include properties and graphs of polynomial, exponential, logarithmic, and trigonometric functions. This material is treated in the modern spirit with emphasis placed on both the development of pertinent concepts as well as the acquisition of essential techniques. The presentation of the topics is balanced between theory and application.

Prerequisites: ( MATH112 )

Corequisites: None

MATH115 Statistics and Geometry (Min SH: 3, Max SH: 3)

A presentation (along with MATH102 Number Systems) of the mathematical ideas and skills for teachers of grades K-6. Topics included in Statistics and Geometry are probability, statistics, measurement, and two and three-dimensional geometry.

Prerequisites: ( MATH100 )

Corequisites: None

MATH119 First Year Student Seminar (Min SH: 1, Max SH: 1)

Designed to embed education program requirements into a required course and to support student achievement of Education Program requirements. This course addresses topics taught in freshman seminars. Restricted to first-year secondary education mathematics majors or B.A. mathematics majors.

Prerequisites: None

Corequisites: None

MATH125 Introduction to Secondary Mathematics (Min SH: 1, Max SH: 1)

An introduction to the history of education and mathematics education, leading up to an examination of the various standards used in teaching mathematics in the 21st century. The organizational structure of secondary schools and the diverse needs of grades 7-12 students are embedded in the previously mentioned topics.

Prerequisites: None

Corequisites: None

MATH141 Calculus 1 (Min SH: 3, Max SH: 3)

A review of algebraic functions, trigonometric functions, and elementary analytic geometry. Limits of functions and continuity are introduced. The derivative of a function is defined and properties of the derivative are applied to a variety of problems. The integral is defined and the Fundamental Theorem of Calculus is introduced and used in the evaluation of integrals.

Prerequisites: ( MATH113 )

Corequisites: None

MATH142 Calculus 2 (Min SH: 3, Max SH: 3)

A presentation of the calculus of transcendental functions. Integration is studied in depth, specifically techniques of integration and applications, as well as improper integrals. Conic sections and indeterminate forms are studied.

Prerequisites: ( MATH141 )

Corequisites: None

MATH180 Mathematics for Management (Min SH: 3, Max SH: 3)

An introduction to the basic techniques for solving systems of linear equations and their extension to the simplex method for solving linear programming problems. Conditional probability is re-examined and extended to Markov Processes.

Prerequisites: ( MATH107 AND MATH112 )

Corequisites: None

MATH200 Secondary Mathematics Methods 1 (Min SH: 3, Max SH: 3)

Provides the first in a two-course sequence of methods of teaching mathematics in grades 7-12. This course includes field experiences and practice teaching. The concentration in this course is on the nature of mathematics, psychology of learning mathematics, teaching of mathematics, history of mathematics education, national and state standards, lesson planning, mathematics-oriented technology, and diversity issues. In addition to these, as the specific topics arise, the course helps students understand the mathematics concepts they will be teaching.

Prerequisites: ( MATH141 AND PSYC103 AND SPEC204 )

Corequisites: None

MATH205 Foundations of Mathematics (Min SH: 3, Max SH: 3)

The necessary foundation for students to make the transition to advanced mathematics. Basic topics of Mathematical Logic with deductive reasoning as applied to mathematical proofs are studied in detail. Mathematical Induction, Set Theory and Theory of Relations and Functions are studied with appropriate proofs.

Prerequisites: ( MATH141 )

Corequisites: None

MATH211 Linear Methods (Min SH: 3, Max SH: 3)

An exploration of vector spaces, matrices, linear transformations. Systems of linear equations are defined and the properties of these structures are developed through examples and, to a lesser degree, proof-theoretic techniques. Inner product spaces, eigenvalues, and eigenvectors are also explored. Euclidean vector spaces are emphasized throughout.

Prerequisites: ( MATH141 )

Corequisites: None

MATH218 Technology in Secondary Mathematics (Min SH: 1, Max SH: 1)

An introduction to the use of technology in teaching mathematics. The history of using technology in teaching mathematics and current trends are examined. Topics include, but are not limited to, calculators (standard, scientific, and graphing), handheld computers, laptops, Computer Assisted Instruction, Computer Algebra Systems, virtual manipulatives, dynamic geometry software, statistical software, and interactive whiteboards.

Prerequisites: None

Corequisites: None

MATH243 Calculus 3 (Min SH: 3, Max SH: 3)

A study of multivariate calculus and its applications, along with three-dimensional analytic geometry. A study of sequences and series, culminating with power series representation for functions, is presented. Polar equations and their graphs are studied.

Prerequisites: ( MATH142 )

Corequisites: None

MATH244 Calculus 4 (Min SH: 3, Max SH: 3)

A conclusion to the undergraduate study of calculus with a detailed treatment of vector analysis, culminating in the three integral theorems of vector analysis: the divergence theorem, Green's theorem, and Stokes' theorem.

Prerequisites: ( MATH243 )

Corequisites: None



MATH301 Differential Equations (Min SH: 3, Max SH: 3)

An introduction to techniques of solving first and second order ordinary differential equations along with their applications including initial value and boundary value problems. Methods of solution for first order differential equations are developed. Basic theory of linear differential equations is presented with special emphasis on second order differential equations. Laplace transforms and the major theorems are studied and utilized in problem solving. Systems of linear differential equations and series solutions are introduced.

Prerequisites: ( MATH243 )

Corequisites: None

MATH302 Number Theory (Min SH: 3, Max SH: 3)

The study of the divisibility properties of the integers. Topics include the congruence relations, arithmetic functions, Gauss' Law of Quadratic Reciprocity, and Diophantine equations as well as applications such as cryptography.

Prerequisites: ( MATH205 )

Corequisites: None

MATH307 Foundations of Geometry (Min SH: 3, Max SH: 3)

An axiomatic study of various geometries including finite geometry, absolute (neutral) geometry, Euclidean geometry, Lobachevskian geometry, and Riemannian geometry. Historical and cultural frameworks for these geometries are provided.

Prerequisites: ( MATH205 )

Corequisites: None

MATH310 Modern Algebra 1 (Min SH: 3, Max SH: 3)

An investigation into algebraic structures including groups, rings, and fields. Special emphasis is placed on the concept of isomorphism and the application of these concepts to the algebra of the secondary education classroom.

Prerequisites: ( MATH205 )

Corequisites: None

MATH311 Elements of Linear Algebra (Min SH: 3, Max SH: 3)

An investigation of systems of linear equations, matrices, determinant function, vector spaces, inner product spaces, linear transformations, eigenvalues, and eigenvectors. It develops properties of these structures through proof-theoretic techniques. It explores applications to areas such as geometry, economics, physical sciences, and social sciences.

Prerequisites: ( MATH205 )

Corequisites: None

MATH313 Mathematical Statistics (Min SH: 3, Max SH: 3)

Theoretical treatment of statistical topics such as probability distribution functions--binomial, negative binomial, geometric, hypergeometric, Poisson, uniform, gamma, exponential, chi-square, F, beta, Pareto, lognormal, Weibull, t, and normal--moment generating functions, sampling distribution, order statistics, point and interval estimation, maximum likelihood estimation, hypothesis testing, Neyman-Pearson Lemma, and decision theory.

Prerequisites: ( MATH312 )

Corequisites: None

MATH316 Secondary Mathematics Methods 2 (Min SH: 4, Max SH: 4)

Provides the second in a two-course sequence of methods of teaching mathematics in grades 7-12. This course includes field experiences and practice teaching. The concentration in this course is on instructional strategies for specific content, the problems of practice, curriculum, unit and lesson planning, assessment, reading and writing strategies in mathematics, technology, diversity issues, adaptations for special needs, and professionalism. In addition to these, as the specific topics arise, the course helps students more deeply understand the mathematics concepts they will be teaching.

Prerequisites: None

Corequisites: None

MATH320 Linear Programming (Min SH: 3, Max SH: 3)

A presentation of the theory of linear programming as well as applications in which linear programming finds its utility, including operations research/management science, game theory, and graph theory.

Prerequisites: ( MATH211 ) OR ( MATH311 )

Corequisites: None

MATH327 Pedagogical Content Knowledge in Secondary Mathematics 1 (Min SH: 1, Max SH: 1)

A partial review of the mathematics taught in secondary schools, examining it from an advanced standpoint, and connecting it to the mathematics studied at the university.

Prerequisites: None

Corequisites: None

MATH328 Seminar-Mathematical Science (Min SH: 3, Max SH: 3)

This seminar has featured such topics as the study of the history of mathematics, the impact and potential effects of computers upon society, and the study of mathematics as it occurs with society in the forms of puzzles, games, and other types of recreation.

Prerequisites: None

Corequisites: None

MATH350 Numerical Methods (Min SH: 3, Max SH: 3)

An introduction to numerical methods in the solution of non-linear equations, systems of linear equations, numerical integration, and numerical differentiation. The course will entail both mathematical rigor and computational aspects of some widely used numerical methods. Commercially-produced programs from the MATLAB library will be used.

Prerequisites: ( MATH243 )

Corequisites: None

MATH401 Real Analysis (Min SH: 3, Max SH: 3)

A mathematically rigorous introduction to analysis of a real valued function of a single real variable. Mathematical logic, set theory, relevant topological and algebraic properties together with proof techniques are heavily utilized throughout the course. Convergence, continuity, differentiation, integration and their interconnections are studied with mathematical integrity.

Prerequisites: ( MATH205 AND MATH243 )

Corequisites: None

MATH403 Biomathematics (Min SH: 3, Max SH: 3)

An introduction to the area of mathematical biology, and the aim is to develop mathematical representation, treatment and modeling of biological processes, using applied mathematical techniques and tools. An emphasis shall be placed upon methods from difference and differential equations. Topics include the study of single species population dynamics, population dynamics or interacting species, models for the spread of infectious diseases, population genetics and evolution, molecular and cellular biology models, and tumor models.

Prerequisites: ( MATH301 )

Corequisites: None

MATH404 Applied Mathematics (Min SH: 3, Max SH: 3)

The investigation of the concept of mathematical model as it is used in Applied Mathematics. Different models are presented as a means of providing solutions to practical problems.

Prerequisites: ( MATH301 )

Corequisites: None

MATH405 Complex Analysis (Min SH: 3, Max SH: 3)

Prerequisites: ( MATH243 )

Corequisites: None

MATH410 Intro to Topology (Min SH: 3, Max SH: 3)

The course is an introduction to the elements of set theory and topology. Topics could include introductory set theory, a detailed study of the real line, topological spaces, metric spaces, functions and continuity, compactness, connectedness, completeness, product spaces, function spaces.

Prerequisites: ( MATH401 )

Corequisites: None

MATH412 Actuarial Mathematics (Min SH: 3, Max SH: 3)

A formulation, analysis and interpretation of mathematical models in financial mathematics and interest theory, and how these concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for use in reserving, valuation, pricing, asset/liability management, investment income, capital budgeting, and valuing contingent cash flows. Financial instruments, including derivatives, and the concept of no-arbitrage are covered. This course covers materials for the second actuarial exam, Exam 2- Financial Mathematics (FM).

Prerequisites: ( MATH243 )

Corequisites: None

MATH415 Student Teaching and Practicum Secondary 1: Mathematics (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None  
Corequisites: None

#### MATH416 Student Teaching and Practicum Secondary 2: Mathematics (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None  
Corequisites: None

#### MATH427 Pedagogical Content Knowledge in Secondary Mathematics 2 (Min SH: 2, Max SH: 2)

A continuation of MATH327 where the mathematics taught in secondary schools is examined from an advanced standpoint and connected to the mathematics studied at the university. The course includes field experience in secondary schools.

Prerequisites: None  
Corequisites: None

#### MATH493 Student Teaching and Professional Practicum 1 (Min SH: 6, Max SH: 6)

The first of two capstone experiences (one at each level appropriate to certification areas and grade level ranges) for pre-service teachers through a student teaching experience required for certification in secondary mathematics. Supervised practice in classrooms with certified teachers and regular practicum sessions, according to prescribed guidelines, introduce the student to the range and scope of a professional educator's responsibilities.

Prerequisites: None  
Corequisites: None

#### MATH494 Student Teaching and Professional Practicum 2 (Min SH: 6, Max SH: 6)

The second of two capstone experiences (one at each level appropriate to certification areas and grade level ranges) for pre-service teachers through a student teaching experience required for certification in secondary mathematics. Supervised practice in classrooms with certified teachers and regular practicum sessions, according to prescribed guidelines, introduce the student to the range and scope of a professional educator's responsibilities.

Prerequisites: None  
Corequisites: None

#### MILS104 Leadership and Personal Development (Min SH: 1, Max SH: 1)

The purpose of this semester is to introduce cadets to fundamental components of service as an officer in the United States Army. These initial lessons form the building blocks of progressive lessons in values, fitness, leadership, and officership. Additionally, the semester addresses "life skills" including fitness, communications theory and practice (written and oral), and interpersonal relationships. Upon completion of this semester, the cadets should be prepared to receive more complex leadership instruction.

Prerequisites: None  
Corequisites: None

MILS105 Introduction to Tactical Leadership (Min SH: 1, Max SH: 1)

This semester builds upon the fundamentals introduced in the previous semester by focusing on leadership theory and decision-making. "Life skills" lessons in this semester include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion of this semester, cadets should be prepared to advance to more complex leadership instruction concerning the dynamics of organizations.

Prerequisites: None

Corequisites: None

MILS204 Innovative Team Leadership (Min SH: 1, Max SH: 1)

Provides the principle leadership instruction of the MS Basic Course. Includes lectures on communication, leadership application, and problem solving skills with increased use of practical exercises/concepts.

Prerequisites: None

Corequisites: None

MILS205 Foundations of Tactical Leadership (Min SH: 1, Max SH: 1)

Continues student development focusing on officer leadership, principles of tactics, values, ethics, the Officer Corps, and the evolution of the United States Army from Vietnam into the Twenty-First Century.

Prerequisites: None

Corequisites: None

MILS305 Leadership in Changing Environments (Min SH: 3, Max SH: 3)

The focus of instruction is on developing specific leader and soldier skills in preparation for attendance at the National Advanced Leadership Camp. Subjects include mission analysis and planning, operations orders, small unit offensive and defensive operations, terrain analysis/ land navigation, combat patrolling and physical fitness.

Prerequisites: None

Corequisites: None

MILS404 Developing Adaptive Leaders (Min SH: 3, Max SH: 3)

The focus is on Leadership, ethics, management, and decision-making process. A study of U.S. Army staff organization at various command levels and the responsibilities of the staffs as a whole and of each staff section. Emphasis is placed on the staff planning sequence. Written and oral military communication skills are also reviewed.

Prerequisites: None

Corequisites: None

MILS405 Leadership in a Complex World (Min SH: 3, Max SH: 3)

The course prepares students for commissioning in the U.S. Army. Focus of the course includes study of U.S. national security interests, military justice, and the laws of land warfare. Career planning, military administration, and leadership review are other subjects covered in the final Military Science course before commissioning. The cadets will execute a Battle Staff ride and Capstone exercise.

Prerequisites: None

Corequisites: None

MILS450 Topics in Military Science (Min SH: 3, Max SH: 3)

An analysis of topics related to military science within a framework provided by the instructor. Possible topics may include, but are not limited to, contemporary issues in the U.S. military, such as Battle Command, Individual and Collective Training, Leader Development, Military Ethics, Joint Operations, Stability and Support Operations, and Modularity.

Prerequisites: None

Corequisites: None

MRKT200 Intro to Marketing (Min SH: 3, Max SH: 3)

Introduces students to marketing, which is the activity and processes for creating, communicating and delivering offerings that have value. Students will learn to analyze an industry for opportunities, segment and select appropriate target groups, analyze competitive offerings, plan for appropriate primary research, conduct online or retail tests, set up promotional plans, research appropriate media, and create a marketing budget -- all culminating in the creation of a full marketing plan.

Prerequisites: None

Corequisites: None

MRKT300 Consumer Behavior (Min SH: 3, Max SH: 3)

Focuses on the exchange processes involved in acquiring, consuming, and disposing of goods, services, experiences, and ideas. Concepts and research methods from marketing and the social and behavioral sciences are applied to understand decision processes in the context of the global marketplace. Students examine how marketers use consumer data, including demographics, psychographics, geography and usage patterns, in product development, service, promotion, pricing, and distribution channels.

Prerequisites: ( MRKT200 )

Corequisites: None

MRKT305 Internet Marketing and e-Commerce (Min SH: 3, Max SH: 3)

An introduction to internet marketing as a rapidly changing tool. Students examine successful models for online businesses, learn in what situations each is applicable and learn strategic marketing methods for each model. In addition to theory, there is a strong applications component to this course, including email, landing pages, autoresponders, web-generated databases, search and banner ads, blogs, persona development and analytics.

Prerequisites: ( MRKT200 )

Corequisites: None

MRKT316 How to Negotiate and Sell (Min SH: 1, Max SH: 1)

Introduces negotiation and sales skills. Students will learn to prepare for and conduct negotiations. They will also learn how to sell products or services to a potential client by communicating value and handling objections.

Prerequisites: ( MRKT200 )

Corequisites: None

MRKT320 Introduction to Pricing (Min SH: 1, Max SH: 1)

An introduction to the behavioral and psychological responses of buyers to various pricing strategies. The course includes how to analyze competitor prices, structure prices to fit consumer preferences, and determine prices for a new business.

Prerequisites: ( MRKT310 )

Corequisites: None

MRKT405 Behavioral Pricing (Min SH: 3, Max SH: 3)

Provides an in-depth understanding of behavioral/psychological responses of buyers to various pricing strategies. The course includes a study of value creation, price structure, value communication, pricing policy and levels, pricing over the product life cycle, strategy implementation, competition, measurements of price sensitivity, and pricing ethics and the law. This course will provide students with the knowledge and confidence to address pricing in their careers.

Prerequisites: ( MRKT200 )

Corequisites: None

MRKT410 Marketing Research (Min SH: 3, Max SH: 3)

Reinforces and extends the theory and application of marketing research. Students will learn how to conduct marketing research (i.e., the systematic and objective process of generating information to aid in making marketing decisions). They will identify what information is required, design the best method for collecting information (both on- and off-line), manage and implement the collection of data, analyze the results, and communicate the findings and their implications.

Prerequisites: ( MATH107 AND MRKT200 )

Corequisites: None

MRKT480 Topics in Marketing (Min SH: 3, Max SH: 3)

An introduction to in-depth aspects of marketing and topics of current interest. Specific topics for a section to be determined prior to the semester in which the course is offered. Previous topics have included Behavioral Pricing (now offered regularly) and International Marketing.

Prerequisites: ( MRKT200 )

Corequisites: None

MTEC403 Clinical Microbiology (Min SH: 1, Max SH: 8)

Twelve months of clinical training in a hospital program accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Prerequisites: None

Corequisites: None

MTEC404 Clinical Chemistry (Min SH: 1, Max SH: 8)

Twelve months of clinical training in a hospital program accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Prerequisites: None

Corequisites: None

MTEC406 Clinical Immunohematology (Min SH: 1, Max SH: 8)

Twelve months of clinical training in a hospital program accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Prerequisites: None

Corequisites: None

MTEC407 Clinical Immunology/Serology (Min SH: 1, Max SH: 8)

Twelve months of clinical training in a hospital program accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Prerequisites: None

Corequisites: None

MTEC408 Clinical Seminar (Min SH: 1, Max SH: 8)

Twelve months of clinical training in a hospital program accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Prerequisites: None

Corequisites: None

MUSI100 World Music (Min SH: 3, Max SH: 3)

Introduces students to world music from a variety of cultural approaches and enables students to develop a broader aesthetic perspective.

Prerequisites: None

Corequisites: None

MUSI101 Introduction to Music (Min SH: 3, Max SH: 3)

Introduces students to the vocabulary, concepts, techniques, and style changes associated with the art music of Western civilization. Representative compositions from all the ages of music history are explored in depth, particular attention being given to the stylistic characteristics of each selection. The historical background and major composers of each style period are introduced, and the changing role of the composer in society is discussed.

Prerequisites: None

Corequisites: None

MUSI103 Basic Musicianship (Min SH: 3, Max SH: 3)



Develops musicianship through the study of composition and performance of music. Guided activities in voice, keyboard, composition and classroom instruments will be available for performance experience. Learning to read music notation will be emphasized.

Prerequisites: None  
Corequisites: None

#### MUSI105 Exploring Contemporary Trends in Jazz, Rock, & Musical Theatre (Min SH: 3, Max SH: 3)

Provides students with the opportunity to develop a structure for future listening experiences in the Rock, Jazz, and Popular Music genres. The unique characteristics of each genre will be explored.

Prerequisites: None  
Corequisites: None

#### MUSI109 Group Piano I (Min SH: 1, Max SH: 1)

Provides an introduction to the piano, supplements the Music Theory sequence by reinforcing theoretical concepts at the keyboard, and prepares music majors for their piano proficiency exams.

Prerequisites: None  
Corequisites: None

#### MUSI110 Introduction to Singing (Min SH: 2, Max SH: 2)

A study of choral and vocal literature of various style periods. Emphasis given to musicianship and singing techniques. Activities include a performance with the University Choir once each semester, and solo and small ensemble performance (or a research paper) as part of the class work. Open to all students who can sing in tune as determined by the instructor prior to registration. This course is recommended as a prerequisite to MUSI111.

Prerequisites: None  
Corequisites: None

#### MUSI111 University Choir (Min SH: 1, Max SH: 1)

Designed to acquaint the student with musical performance and to offer means and experiences to solve those problems (e.g., technical demands, interpretation of music, and exploration of representative). Ensembles include the following, i.e., University Band (Marching - Fall; Symphonic - Spring), University Choir, Jazz/Rock Ensemble, Percussion Ensemble, Small Vocal Ensembles (e.g., Cantori, Vocal Jazz Ensemble), and Small Instrumental Ensembles (e.g., Jazz/Rock Combo, Pit Orchestra).

Prerequisites: None  
Corequisites: None

#### MUSI112 University Band (Min SH: 1, Max SH: 1)

Designed to acquaint the student with musical performance and to offer means and experiences to solve those problems (e.g., technical demands, interpretation of music, and exploration of representative). Ensembles include the following, i.e., University Band (Marching - Fall; Symphonic - Spring), University Choir, Jazz/Rock Ensemble, Percussion Ensemble, Small Vocal Ensembles (e.g., Cantori, Vocal Jazz Ensemble), and Small Instrumental Ensembles (e.g., Jazz/Rock Combo, Pit Orchestra).

Prerequisites: None  
Corequisites: None

MUSI113 Percussion Ensemble (Min SH: 1, Max SH: 1)

Designed to acquaint the student with musical performance and to offer means and experiences to solve those problems (e.g., technical demands, interpretation of music, and exploration of representative). Ensembles include the following, i.e., University Band (Marching - Fall; Symphonic - Spring), University Choir, Jazz/Rock Ensemble, Percussion Ensemble, Small Vocal Ensembles (e.g., Cantori, Vocal Jazz Ensemble), and Small Instrumental Ensembles (e.g., Jazz/Rock Combo, Pit Orchestra).

Prerequisites: None

Corequisites: None

MUSI114 Jazz/Rock Ensemble (Min SH: 1, Max SH: 1)

Designed to acquaint the student with musical performance and to offer means and experiences to solve those problems (e.g., technical demands, interpretation of music, and exploration of representative). Ensembles include the following, i.e., University Band (Marching - Fall; Symphonic - Spring), University Choir, Jazz/Rock Ensemble, Percussion Ensemble, Small Vocal Ensembles (e.g., Cantori, Vocal Jazz Ensemble), and Small Instrumental Ensembles (e.g., Jazz/Rock Combo, Pit Orchestra).

Prerequisites: None

Corequisites: None

MUSI115 Ensemble Small Choral (Min SH: 1, Max SH: 1)

Designed to acquaint the student with musical performance and to offer means and experiences to solve those problems (e.g., technical demands, interpretation of music, and exploration of representative). Ensembles include the following, i.e., University Band (Marching - Fall; Symphonic - Spring), University Choir, Jazz/Rock Ensemble, Percussion Ensemble, Small Vocal Ensembles (e.g., Cantori, Vocal Jazz Ensemble), and Small Instrumental Ensembles (e.g., Jazz/Rock Combo, Pit Orchestra).

Prerequisites: None

Corequisites: None

MUSI121 Applied Music 1 (Min SH: 1, Max SH: 1)

A concentrated approach to musical performance (voice, piano, etc.) through individual instruction in private lessons. Encompasses playing technique, tone production, sight-reading, performance practice, and interpretation of significant music literature.

Prerequisites: None

Corequisites: None

MUSI122 Applied Music 2 (Min SH: 2, Max SH: 2)

Similar to MUSI121 with twice as much lesson time.

Prerequisites: None

Corequisites: None

MUSI125 Introduction to Musical Theater (Min SH: 3, Max SH: 3)

Introduces students to musical theater, its history, and application.

Prerequisites: None

Corequisites: None

MUSI202 Music for Early Childhood (Min SH: 3, Max SH: 3)

Deals with (1) experiences in musicality and basic music skill development, (2) strategies, tools, and materials that will encourage musicality in young children, (3) research findings that provide a basis for defining the cognitive, kinesthetic and attitudinal objectives for musical behavior that can be expected of young children, and (4) strategies for developing relationships between musical concepts and their counterparts in other subject areas. Does not fulfill General Education Requirements.

Prerequisites: None

Corequisites: None

MUSI203 Music Theory 1 (Min SH: 2, Max SH: 2)

Presents basic concepts in music theory, including fundamentals of music notation, basic principles of meter, intervals, major/minor scales, key signatures/circle of fifths, chord structures, melodic structures, and principles of part writing/voice leading using root position and inverted chords. Non-chord tones introduced. Motivic, phrase, and period structures are analyzed. The course will include basic exercises in sight-singing and ear training and also a study of blues, jazz, and other nontraditional idioms.

Prerequisites: None

Corequisites: (MUSI109 AND MUSI206)

MUSI204 Music Theory 2 (Min SH: 2, Max SH: 2)

A continuation of Music Theory 1. Basic concepts of traditional harmony are extended and chord vocabulary is enlarged. Partwriting with inverted chords and non-chord tones is studied. Motivic, phrase, and period structures are analyzed. Sight-singing and ear training skills development are continued. Jazz forms, scales, chord structures and notational techniques will be reviewed and expanded upon.

Prerequisites: (MUSI109 AND MUSI203 AND MUSI206)

Corequisites: None

MUSI205 Music Technology (Min SH: 1, Max SH: 1)

A survey of music software and hardware for the professional musician. Topics include music notation, sequencing and MIDI, audio recording and editing, synthesis, multimedia, and web publishing.

Prerequisites: None

Corequisites: None

MUSI210 Group Piano II (Min SH: 1, Max SH: 1)

A continuation of MUSI109 Group Piano 1; supplements the Music Theory sequence by reinforcing theoretical concepts at the keyboard, and prepares music majors for their piano proficiency exams.

Prerequisites: (MUSI109)

Corequisites: None

MUSI301 Music for Elementary Grades (Min SH: 3, Max SH: 3)

Provides experiences in (1) ways of using the activities of listening, moving, singing, playing classroom instruments, and creating music to teach concepts basic to music's structure, (2) strategies for making relationships between music and other subject areas, (3) locating and using resource materials, and (4) participation in clinical teaching situations with peer groups and with children.

Prerequisites: None  
Corequisites: None

#### MUSI305 Jazz Studies (Min SH: 2, Max SH: 2)

Addresses cultural diversity and offers historical and musical insights into a style of music other than the traditional Western European tradition. American jazz style will raise student's awareness of unique musical developments within this country. Active listening skills through masterworks drawn from the historical style periods of jazz will be emphasized. Social and technological changes during the past 25 years will be examined in depth to derive possible directions for the future of jazz.

Prerequisites: None  
Corequisites: None

#### MUSI306 Popular Music and Jazz Theory (Min SH: 3, Max SH: 3)

Presents concepts in popular music and jazz music theory. Students will study music notation, form, meter, intervals, scales, modes, chord sequences, chord functions and principles of voice leading using contemporary chord voicings.

Prerequisites: ( MUSI103 AND MUSI109 AND MUSI203 )  
Corequisites: None

#### MUSI308 Music Marketing (Min SH: 3, Max SH: 3)

Offers insight into music marketing, its structure, historical economic trends and the impact of technology on business and marketing practices in the music industry. Current trends in music marketing practices, music promotion and management as well as retail sales will be examined. The use of technology including web site design, social networking sites and the distribution of digital media will be explored.

Prerequisites: None  
Corequisites: None

#### MUSI309 History of Rock Music (Min SH: 3, Max SH: 3)

Comprises a study of the history of rock music from the mid-20th century to present day. Using representative period examples, the class will examine the variety of genres, forms, techniques and practices of song writing and performance as developed by the major artists in the rock genre in Europe, the USA and non-western cultures. A study of the social history and artistic ideals of the periods and geographic regions, as pertinent to musical development, will be included.

Prerequisites: ( MUSI101 AND MUSI105 )  
Corequisites: None

#### MUSI312 Music Before 1750 (Min SH: 2, Max SH: 2)

Comprises a study of the history and literature of music of the Middle Ages, Renaissance, and Baroque periods. Using representative, period masterpieces, the class will examine the variety of genres, forms, techniques and practices of composition as developed by the major composers in France, Italy, Germany (Austria) and the Franco-Netherlands provinces. A study of the social history and the artistic ideals of the periods and geographic regions, as pertinent to musical development, will be included.

Prerequisites: None  
Corequisites: None

MUSI314 20th Century Music (Min SH: 3, Max SH: 3)

The history and literature of music dating from c.1880 to the present. It includes an examination of the various schools and new idioms and ideals that European, North, Central and South American composers have fostered. Emphasis is placed upon the new techniques and innovations that have become part of the musical language of this century.

Prerequisites: None

Corequisites: None

MUSI315 American Music (Min SH: 3, Max SH: 3)

A study of the various native composers, compositions, epochs, and musical styles which constitute the history of American music from Colonial times to the present.

Prerequisites: None

Corequisites: None

MUSI319 Symphonic Music (Min SH: 3, Max SH: 3)

A study of music for the symphony orchestra. Examples from several periods, composers, and styles are compared and evaluated. The growth and development of the symphony orchestra and the effect of this growth on the music produced are also considered.

Prerequisites: None

Corequisites: None

MUSI320 Music for the Theatre (Min SH: 3, Max SH: 3)

Study of music written in various dramatic forms in several cultures. Examples from opera, oratorio, ballet, musical comedy, operetta, and films are examined in terms of style, technique, historical context, and dramatic function. Comparisons of the uses of theater music in various cultures will be emphasized.

Prerequisites: None

Corequisites: None

MUSI322 Music Theory III (Min SH: 3, Max SH: 3)

A continuation of the Music Theory sequence. Modulation and tonicization by the use of secondary chords and other techniques are reviewed. Chromatic harmony (mode mixture, Neapolitan chords, augmented sixth chords, etc) is explored. The concept of enharmonic modulation is explored, along with extended harmonies and other advanced harmonic techniques common to the late 19th century. Jazz chord structure and notation will be reviewed and expanded upon. There will be an introduction and overview of standard musical forms.

Prerequisites: None

Corequisites: None

MUSI323 Music Theory IV (Min SH: 3, Max SH: 3)

A continuation of the Music Theory sequence Enharmonic/"distant" sequence. Enharmonic/"distant" modulation, extended harmonies, nontraditional scales, chord planning, etc are studied leading to an overview of non-tonal harmonic procedures. Musical form is studied in detail. Jazz chord structure and notation will be reviewed and expanded upon, as well as common jazz scales, forms, and improvisational techniques.

Prerequisites: None  
Corequisites: None

MUSI328 Seminar-Humanities (Min SH: 3, Max SH: 3)

This seminar will provide a general survey of music as it is used in the daily lives of various ethnic groups. The study will enable the student to (1) understand the ways in which folk and ritual music represent a particular ethnic group, (2) recognize and distinguish the sounds of representative styles of ethnic music, and (3) develop techniques for the study of ethnic music that will enable the student to carry out independent research.

Prerequisites: None  
Corequisites: None

MUSI343 Music Theory V/Orchestration (Min SH: 3, Max SH: 3)

Provides music majors with knowledge of the rudiments of orchestration, including ranges, keys, and clefs of different instruments; the timbral qualities of combinations of instruments; and the historical practice of orchestration by past masters.

Prerequisites: None  
Corequisites: None

MUSI400 Music History After 1750 (Min SH: 2, Max SH: 2)

Provides music majors with knowledge of the history of Western Art Music from 1750-present, including the Classical, Romantic, and Contemporary eras.

Prerequisites: ( MUSI312 )  
Corequisites: None

NANO100 Introduction to Nanoscience (Min SH: 1, Max SH: 1)

Introduces aspects of nanotechnology and its applications to science, medicine and industry. This course presents this evolving field and discusses potential future influence in everyday life. Course includes tours of the nanofabrication facilities at Lock Haven University and Pennsylvania State University.

Prerequisites: None  
Corequisites: None

NANO105 Introduction to Nanoscale Science (Min SH: 3, Max SH: 3)

An introduction to the fundamental principles determining the properties of matter at the nanoscale with an overview of the major fields of application.

Prerequisites: None  
Corequisites: None

NANO201 Materials, Safety and Equipment Overview for Nanofabrication (Min SH: 3, Max SH: 3)

Provides an overview of the materials, safety and equipment issues encountered in the practice of "top down" and "bottom up" nanofabrication. It focuses on environment, health, and safety (EHS) issues in equipment operation and materials handling. Topics to be covered include cleanroom operation, OSHA lab standard safety training, and health issues.

Prerequisites: ( CHEM120 AND PHYS130 AND PHYS131 ) OR ( CHEM120 AND PHYS170 AND PHYS171 )

Corequisites: None

**NANO202 Basic Nanotechnology Process (Min SH: 3, Max SH: 3)**

Hands-on introduction to the processing involved in "top down", "bottom up", and hybrid nanofabrication. The majority of the course details a step-by-step description of the equipment, facilities processes and process flow needed to fabricate devices and structures.

Prerequisites: ( CHEM120 AND PHYS130 AND PHYS131 ) OR ( CHEM120 AND PHYS170 AND PHYS171 )

Corequisites: None

**NANO203 Materials in Nanofabrication (Min SH: 3, Max SH: 3)**

An in-depth, hands-on exposure to the producing and positioning of the materials used in nanofabrication designed to give students experience in depositing, fabricating, and self-assembling a wide variety of materials tailored for their mechanical, electrical, optical, magnetic, and biological properties.

Prerequisites: ( NANO201 AND NANO202 )

Corequisites: None

**NANO205 Materials Modification for Nanotechnology Applications (Min SH: 3, Max SH: 3)**

An in-depth exploration of the processing techniques and specialty hardware used in modifying material properties in nanofabrication and used in forming nano-scale devices and systems. Application and design project such as DNA lab on a chip, prosthetic devices, and photovoltaic cells will be done as group projects.

Prerequisites: ( NANO203 AND NANO204 )

Corequisites: None

**NANO206 Characterization and Testing of Nanotechnology Structures and Materials (Min SH: 3, Max SH: 3)**

Examines a variety of techniques and measurements essential for testing and for controlling material fabrication and final device performance. Characterization includes electrical, optical, physical, and chemical approaches.

Prerequisites: ( NANO203 AND NANO204 )

Corequisites: None

**NANO210 Nanotechnology Tools and Techniques (Min SH: 3, Max SH: 3)**

An introduction to a core set of nanotechnology-related advanced instrumentation and techniques. Both theoretical and operational aspects of these will be covered at a basic level. The course will also be a basic introduction to nanostructure and thin film synthesis, in-situ and ex-situ characterization of nanostructures and nanoscale systems including systems in biotechnology, material science and other disciplines.

Prerequisites: ( NANO105 )

Corequisites: None

**NANO300 Thin Film Science and Technology (Min SH: 4, Max SH: 4)**

Introduces the fundamentals of thin-film science and technology including fabrication, characterization of the thin-films structures and their optical, mechanical, electromagnetic properties. It will also address some aspects of low dimensional structures, including both the conceptual principles and experimental techniques of nanoscale science.

Prerequisites: ( PHYS170 ) OR ( PHYS171 ) OR ( PHAP205 ) OR ( NANO205 )  
Corequisites: None

#### NANO304 Generation and Modification of Nanostructures (Min SH: 3, Max SH: 3)

An intermediate course addressing the fundamental processes for deposition and growth of materials with emphasis on nanostructures, the principles of operation of common class of deposition and patterning techniques, and creation of special experimental environments such as vacuum and gas management.

Prerequisites: ( MATH141 AND NANO210 AND PHYS131 ) OR ( MATH141 AND NANO210 AND PHYS171 )  
Corequisites: None

#### NANO306 Characterization of Nanostructures (Min SH: 3, Max SH: 3)

An introduction to in-situ, ex-situ destructive, and non-destructive characterization of nano/micro scale systems at an intermediate level. Systems under discussion will be taken from physics, engineering, material science, chemistry, and biotechnology, emphasizing current technological and investigative applications. Students develop competency in the use of a broad, versatile set of characterization techniques.

Prerequisites: ( MATH141 AND NANO210 AND PHYS131 ) OR ( MATH141 AND NANO210 AND PHYS171 )  
Corequisites: (PHYS170 )

#### NANO458 Advanced Applied Nanotechnology Laboratory (Min SH: 3, Max SH: 3)

Laboratory experience drawn from an undergraduate foundation in sciences including areas of current research in nanotechnology. Experimental methods and analysis are used, with emphasis on group and individual work in the planning, execution, and presentation of research. Students may repeat for credit.

Prerequisites: ( NANO206 ) OR ( PHAP206 )  
Corequisites: None

#### NURS102 Nursing 2 (Min SH: 8, Max SH: 8)

A continuation of Nursing 101, Nursing I, focuses on human needs according to Maslow. The course addresses the individual's needs related to activity/rest, safety/security, oxygen/carbon dioxide exchange, love/belonging, and psychosocial well being. Emphasis is placed on communication, and teaching/learning skills as an essential part of the nursing process in the care of individuals and families. The family during the childbearing years and during the first year of life is studied in order for the student to develop beginning competencies in those technical skills necessary to carry out the nursing care plan for individuals of all ages and in selected health care settings.

Prerequisites: ( NURS101 )  
Corequisites: None

#### NURS201 Nursing 3 (Min SH: 8, Max SH: 8)

An extension of NURS102: Nursing 2 and continues to increase the knowledge base of human needs with application of the nursing process to individuals and families with alterations in their level of health. Communication and health teaching are integrated as major strategies for assisting individuals and families to care for themselves in health and illness. This course focuses on levels of wellness and alterations in human needs relating to psychosocial, sexuality, oxygen/carbon dioxide exchange, love/belonging safety/security, and activity/rest. In addition, students will be spending 12 clinical hours each week outside of the structured course setting.

Prerequisites: ( NURS101 AND NURS102 )  
Corequisites: None



NURS202 Nursing 4 (Min SH: 8, Max SH: 8)

An extension of NURS201 - Nursing 3 and continues to increase the knowledge base of human needs with application of the nursing process to individuals and families with alterations in their level of health. Communication and health teaching are integrated as major strategies for assisting individuals and families to care for themselves in health and illness. Levels of wellness and alterations in human needs are studied as the course focuses on individual needs relating to sexuality, oxygen/carbon dioxide exchange, safety/security, and activity/rest. Students will be spending 12 clinical hours each week outside the structured course setting.

Prerequisites: ( NURS102 AND NURS201 )

Corequisites: None

NURS205 Nursing Field Experience (Min SH: 1, Max SH: 3)

A field experience course that will allow the student to pursue a personal interest in an area of nursing, while focusing on patient-centered care, communication, safety, collaboration, teamwork, and professionalism.

Prerequisites: ( NURS101 AND NURS102 )

Corequisites: None

NURS212 Nursing Transition (Min SH: 2, Max SH: 2)

This seminar is designed as a transition course for nursing students in the last semester of their educational program. It provides an overview of historical events that have affected the evolution of nursing and presents the issues and trends that are molding the nursing profession of the new century. Prepares the student for graduation and the work world of nursing. This course runs concurrently with NURS202.

Prerequisites: None

Corequisites: None

NURS305 Nursing Informatics (Min SH: 3, Max SH: 3)

An introduction to applications of informatics systems in nursing practice and education. Integrates various theories and assists students to develop skills for information literacy in the context of communication, self-expression, social control in a diverse society, and in the use of electronic patient records and tele-health. Provides an introduction to technology in nursing. Learning experiences provide for the development of baseline informatics and verbal and nonverbal professional communication styles needed in the healthcare delivery arena.

Prerequisites: None

Corequisites: None

NURS310 Foundations for Professional Practice (Min SH: 3, Max SH: 3)

A seminar course focused on the theoretical foundations of professional practice and theory development in nursing.

Prerequisites: None

Corequisites: None

NURS320 Health Assessment (Min SH: 3, Max SH: 3)

Focuses on identification and demonstration of advanced assessment techniques with emphasis on normal and abnormal findings throughout the life span. Learning experiences provide for development of a systematic approach to physical assessment to facilitate integration of assessment findings and major health deviations. Principles of therapeutic communication will be emphasized as an adjunct to performing a health assessment.

Prerequisites: None

Corequisites: None

NURS325 Pharmacology for Nursing (Min SH: 3, Max SH: 3)

Designed to provide an overview for nurses of drug therapy integrating the use of the nursing process in pharmacokinetics. The emphasis is to provide a big picture approach to the systemic use of drugs in the treatment and or management of diseases.

Prerequisites: None

Corequisites: None

NURS330 Global Perspectives in Nursing (Min SH: 3, Max SH: 3)

An exploration of global issues affecting personal, community, and international health and development using approaches from health promotion, population health, and primary health care to help frame analyses. Students are exposed to basic perspectives on health policy issues throughout various geographical regions and the impact by significant world events.

Prerequisites: None

Corequisites: None

NURS350 Care of the Critically Ill (Min SH: 3, Max SH: 3)

Designed to provide fundamental information about the nursing care of clients across the lifespan in critical care settings. Focus is advanced concepts of critical care related to multi-organ/system function and dysfunction.

Prerequisites: ( NURS320 AND NURS325 )

Corequisites: (NURS315 )

NURS410 Nursing: Home, Community and Public Health (Min SH: 3, Max SH: 3)

Designed to review current and evolving roles of home health, community and public health nurses. Health promotion, health teaching, economic, political, legal and ethical influences, environmental issues, epidemiology, communicable diseases and vulnerable populations are addressed. Focus is on the application and integration of health and wellness concepts.

Prerequisites: None

Corequisites: None

NURS420 Nursing Leadership and Management Practice (Min SH: 3, Max SH: 3)

A capstone nursing course with focus on leadership and management issues in health care. Seminars provide opportunities for students to share commonalities and unique aspects of their practical experiences in nursing . Course culminates in a concentrated external experience in an area and agency selected by the student.

Prerequisites: ( NURS310 )

Corequisites: None

NURS430 Nursing: Contemporary Issues, Policy and Politics (Min SH: 3, Max SH: 3)

An exploration of policy and politics, strategies of policy development and political action, and application of such strategies in four spheres: workplace, government, organizations, and community. This course focuses on the political roles and responsibilities of professional nurses in efforts to discuss unresolved issues of interest to nurses, their colleagues, and consumers of health care.

Prerequisites: None

Corequisites: None

NURS490 Nursing Research (Min SH: 3, Max SH: 3)

Focuses on the theoretical basis of research methodology with emphasis on analyzing, critiquing, and interpreting nursing research. Development of a research proposal, based on an identified nursing problem, will aid in understanding use of research findings in evidence-based nursing practice.

Prerequisites: ( MATH107 )

Corequisites: None

NURS498 Health Science Seminar (Min SH: 1, Max SH: 3)

An analysis and/or comparison of topics related to health science within a framework provided by the instructor. Examples include but are not limited to contemporary issues in healthcare, a comparative analysis of healthcare systems in different countries, health issues related to population, economics, social and other factors, healthcare issues of special populations, the healthcare crisis in the United States, and emerging healthcare technologies and fields.

Prerequisites: None

Corequisites: None

PHAP400 Modern Optoelectronics (Min SH: 3, Max SH: 3)

Introduces the fundamentals of the physical phenomena related to generation, propagation, manipulation and detection of light, and the application of these phenomena in solid state devices. Special topics will include interactions of light with materials systems of current importance (e.g. semiconductors, nanosized metal particles, biological macromolecules). Pre- or Co-requisite: PHYS315 and PHYS370

Prerequisites: ( PHYS315 AND PHYS370 )

Corequisites: None

PHAP410 Material Science (Min SH: 3, Max SH: 3)

Introduces fundamental physical phenomena related to solid state materials. Covers the mechanical, electrical, magnetic, optical and thermal properties of solid state materials, as well as defects in solids and how they influence the materials' properties. The applications emphasized in this course concern the developments of nanomaterials and nanostructures. Pre- or co-requisite: PHYS315 and PHYS370

Prerequisites: None

Corequisites: (PHYS315 ANDPHYS370 )

PHIL101 Problems in Philosophy (Min SH: 3, Max SH: 3)

An introduction to a number of fundamental philosophical problems which are traditional to the discipline. Primary emphasis will be placed on theories of knowledge, metaphysics, human nature and ethical and political philosophy, introduced through logical and cultural analyses of the works of several major philosophers.

Prerequisites: None  
Corequisites: None

#### PHIL102 Ethics (Min SH: 3, Max SH: 3)

Examines a variety of approaches to moral philosophy. Analyzes the problems of values, ideals, and standards of human action, from both an individual and a social perspective. Discusses contemporary issues from contrasting ethical points of view, and evaluates the logic of their cases.

Prerequisites: None  
Corequisites: None

#### PHIL105 Philosophy of Religion (Min SH: 3, Max SH: 3)

Designed to provide an introduction to the basic problems in the philosophy of religion, such as the nature of religion, religious language, the relationship between faith and reason, varieties of theism and atheism, proofs for and against the existence of God, religious pluralism, immortality, miracles, mysticism, and the problem of evil. Students will examine a wide variety of religious beliefs, theories, and practices with the aim of clarifying and evaluating both Western and Eastern religious traditions.

Prerequisites: None  
Corequisites: None

#### PHIL110 Critical Thinking (Min SH: 3, Max SH: 3)

Teaches students how to evaluate arguments in terms of both formal and informal logic. The emphasis is divided between the theoretical, logical issues and the practical application of good reasoning in a wide variety of contexts, both personal and public.

Prerequisites: None  
Corequisites: None

#### PHIL201 Classical Philosophy (Min SH: 3, Max SH: 3)

The development of philosophy from Thales to Plotinus, covering the Greek and Roman periods. Major emphasis on Plato and Aristotle.

Prerequisites: None  
Corequisites: None

#### PHIL202 Medieval Philosophy (Min SH: 3, Max SH: 3)

A study of the development of philosophy from Augustine in the fourth century A.D. to William of Ockham in the 14th century. Special emphasis is placed on Augustine and Aquinas.

Prerequisites: None  
Corequisites: None

#### PHIL204 Modern Philosophy (Min SH: 3, Max SH: 3)

An historical study of the major figures and movements in philosophy from the 17th to the 19th century. The accent is upon the problems and methods of philosophy.

Prerequisites: None

Corequisites: None

PHIL205 Contemporary Philosophy (Min SH: 3, Max SH: 3)

The major movements in the philosophy of the 20th century. Considers idealism, Neo-Thomism, Marxism, Phenomenology and Existentialism, Logical Positivism, Linguistic Analysis, and Naturalism.

Prerequisites: None

Corequisites: None

PHIL206 American Philosophy (Min SH: 3, Max SH: 3)

A general study of philosophy in the U.S. since the middle of the 19th century. The emphasis is upon the works of those philosophers of this country who have developed themes peculiarly American.

Prerequisites: None

Corequisites: None

PHIL207 Asian Philosophies (Min SH: 3, Max SH: 3)

A study of the major schools of Indian and Chinese philosophy which developed out of Hinduism, Buddhism, Taoism, and Confucianism. The emphasis will be on the metaphysical, epistemological, and ethical insights of the various systems.

Prerequisites: None

Corequisites: None

PHIL215 Canadian Philosophy (Min SH: 3, Max SH: 3)

Introduces Canadian Philosophy and sets forth Canadian Philosophy as a distinct system of inquiry. In particular, close attention will be paid to the relationship between Canadian philosophy and Canadian intellectual history. Particular focus will be placed on the philosophical notion of community and its impact on Canadian society.

Prerequisites: None

Corequisites: None

PHIL220 Existentialism (Min SH: 3, Max SH: 3)

An introduction to the 19th and 20th century philosophical movement called Existentialism. The course examines the historical roots of the movement in pessimism and egoism, explores selections from the major writings of its central figures, and traces its continuing influence on 21st century thought.

Prerequisites: None

Corequisites: None

PHIL301 Philosophy of Science (Min SH: 3, Max SH: 3)

An investigation of the nature and techniques of scientific explanation. Study of such questions as the nature of scientific method, the logic of scientific explanation, theory construction, causality, and the nature of the laws of science. Primary emphasis on the philosophical questions involved in the work of science and the link between science and philosophy.

Prerequisites: None  
Corequisites: None

PHIL305 Metaphysics (Min SH: 3, Max SH: 3)

A study of the most general questions concerning the nature of reality including such problems as the reality of an external world, the significance of human existence, the nature of time, space, substance, cause, and the status of natural laws.

Prerequisites: ( PHIL\*\*\* ) OR ( HONR101 )  
Corequisites: None

PHIL306 Theory of Knowledge (Min SH: 3, Max SH: 3)

Examines the basic problems of epistemology, such as the nature, the reliability, and the proper objects of knowledge. Considers questions pertaining to the nature of truth, theories of perception, the problems of universals, concepts, and categories.

Prerequisites: None  
Corequisites: None

PHIL307 Philosophy of Art (Min SH: 3, Max SH: 3)

An analysis of various concepts of aesthetics. Investigation into some of the fundamental questions involved in the philosophy of art. Aestheticians, both historical and contemporary. The application of aesthetic theory to art forms both past and present. Aesthetics approached from a worldwide outlook. Probes deeply into the arts for broader aesthetic understanding.

Prerequisites: None  
Corequisites: None

PHIL308 Logic (Min SH: 3, Max SH: 3)

Standard logical notions and techniques. Chief emphasis on forms of argument, modes of valid inference, traditional and modern approaches to deductive argument, and inductive theory. Syllogistic and mathematical logic. The course does not meet the philosophy general education requirement.

Prerequisites: None  
Corequisites: None

PHIL315 Philosophy of Law (Min SH: 3, Max SH: 3)

The exploration of such broad questions as What is law?, How are law and morality related?, and How should we best conceptualize legal reasoning? Specific topics might include, among others, legal theories, equality, rights and freedoms (speech, religion, etc), civil disobedience and violence, and gender and race in the American legal and social context.

Prerequisites: ( ENGL100 ) OR ( HONR111 ) OR ( PHIL\*\*\* ) OR ( HONR101 )  
Corequisites: None

PHIL328 Seminar-Humanities (Min SH: 3, Max SH: 3)

This seminar is intended to familiarize students with the questions that philosophers and individuals have always asked and to help them realize that, although the answers change, the questions remain the same. Different aspects and questions may be dealt with in several philosophy seminars.

Prerequisites: ( ENGL100 ) OR ( HONR111 )

Corequisites: None

#### PHIL400 Ethics and the Environment (Min SH: 3, Max SH: 3)

A skills and knowledge-based introduction to ethical theories and principles, including diverse cultural and multicultural theories concerning the nature and status of the environment and its moral significance; an inquiry into the ethical issues that emerge with respect to the environment across the globe. Topics include philosophical ethics; foundations of ethical theories; diverse philosophical conceptions of nature; anthropocentrism; gaiacentrism; biophilia; moral standing; shallow and deep ecology; cross-cultural environmental issues resulting from business and other professional practices; and moral decision making.

Prerequisites: None

Corequisites: None

#### PHIL415 Ethical Issues in the Health Care Professions (Min SH: 3, Max SH: 3)

A skills and knowledge-based introduction to ethical theories and principles, including diverse cultural and multicultural theories, as they emerge in the principles and practice of health care for health care professionals and patients/clients; an inquiry into the ethical issues that emerge in the various health care professions in a global world and in multicultural societies. Topics include: philosophical ethics; the moral dimension of being a professional; cross-cultural conceptions of self and aging; cross-cultural conceptions of health and illness; cross-cultural conceptions of death and dying; diverse perspectives on autonomy, truth telling and confidentiality; diverse perspectives on death and dying; the allocation of medical resources; reproductive technologies; gender, age, race, ethnicity and social class; moral decision making.

Prerequisites: None

Corequisites: None

#### PHIL425 Ethics in Business and Industry (Min SH: 3, Max SH: 3)

A skills and knowledge-based introduction to ethical theories and principles, including diverse cultural and multicultural theories, as they emerge in the principles and practice of business; an inquiry into the ethical issues that emerge in the various business professions in a global world and in multicultural societies. Topics include philosophical ethics; foundations of ethical theories; philosophical conceptions of networking; the moral dimension of being a professional; cross-cultural issues in business, including the nature of the corporation, employment at will, whistle blowing, gender, age, race, ethnicity, and social class; and moral decision making.

Prerequisites: None

Corequisites: None

#### PHYS101 Matter and Energy (Min SH: 3, Max SH: 3)

An introduction to the underlying physical principles of energy generation and consumption and their implications nationally and globally. Topics include the atomic and subatomic structure of matter, forms of energy, energy conservation, thermodynamics, heat engines, electromagnetic induction, radioactivity, nuclear reactors, nuclear fusion, solar radiation, solar collectors, gravitational force, and tidal power. Students will develop through using scientific inquiry methods including conceptual understanding, laboratory exercises, and activities developing the skills for quantitative evaluation of processes.

Prerequisites: None

Corequisites: None

#### PHYS102 The Mechanical Universe (Min SH: 3, Max SH: 3)

Introduces what is traditionally called Newtonian Mechanics including one- and two-dimensional motion, Newton's Laws, momentum, energy, and circular and simple harmonic motion. The course employs a laboratory-first, inquiry-oriented format that places emphasis on the investigation of problems in the physical world with the results of investigations being used to drive further instruction.

Prerequisites: None

Corequisites: None

PHYS108 Galileo: The Father of Experimental Science (Min SH: 3, Max SH: 3)

An introduction to physical science concepts, their applications, and the nature of science through an examination of the life and work of Galileo to be taught in Italy, during the summer.

Prerequisites: None

Corequisites: None

PHYS110 How Things Work (Min SH: 3, Max SH: 3)

An introduction to a current understanding of the physical universe in terms of fundamental principles of physics. Basic concepts are studied and related to common phenomena and applications found in everyday life as well as more exotic phenomena one may come across in the news or popular-science media. The lecture will make frequent use of experimental equipment and commercial devices in demonstrations of physical principles.

Prerequisites: None

Corequisites: None

PHYS125 Physics of Sports (Min SH: 3, Max SH: 3)

An introduction to Physics from the perspective of sports. Basic concepts in classical mechanics and fluid dynamics are used to analyze motion and interactions in baseball, basketball, football, soccer, track and field, and other sports. The lecture will make frequent use of demonstrations of physical principles and hands-on and kinesthetic activities.

Prerequisites: None

Corequisites: None

PHYS130 Physics 1 (Min SH: 4, Max SH: 4)

An algebra-based introduction to mechanics, thermodynamics, vibrations and waves.

Prerequisites: ( MATH113 ) OR ( MATH141 ) OR ( MATH142 ) OR ( MATH243 ) OR ( MATH244 ) OR ( MATH135 )

Corequisites: None

PHYS131 Physics 2 (Min SH: 4, Max SH: 4)

An algebra-based introduction to electricity, magnetism, optics and modern physics.

Prerequisites: ( PHYS130 )

Corequisites: None

PHYS135 Meteorology (Min SH: 3, Max SH: 3)



An introduction to meteorology through the systematic study of the atmosphere including composition and structure. It will analyze the laws and underlying principles of the atmospheric change and motion. The course will focus on the origin and development of weather features and their significance in weather forecasting. It includes a study of global weather patterns, climate systems and climate change.

Prerequisites: None

Corequisites: None

PHYS140 Astronomy of the Solar System (Min SH: 3, Max SH: 3)

An introduction to the methods and discoveries of astronomy focusing on the solar system.

Prerequisites: None

Corequisites: None

PHYS170 Intermediate General Physics 1 (Min SH: 4, Max SH: 4)

An introduction to motion, sound, and heat employing the methods of calculus and vector analysis. Co-requisite: MATH141.

Prerequisites: None  
Corequisites: (MATH141 )

PHYS171 Intermediate General Physics 2 (Min SH: 4, Max SH: 4)

An introduction to Electricity, Magnetism and Optics employing the methods of calculus and vector analysis.

Prerequisites: ( PHYS170 )  
Corequisites: (MATH142 )

PHYS250 Heat (Min SH: 3, Max SH: 3)

An intermediate course in heat. More intensive development of basic concepts and principles in the study of the properties of gases and in thermodynamics. Temperature measurements, expansivity, specific heats, thermal conductivity of solids and liquids, thermal properties of gases, changes of phase, and heat engines.

Prerequisites: ( PHYS130 ) OR ( PHYS170 )  
Corequisites: None

PHYS290 Electronics (Min SH: 4, Max SH: 4)

Introduces the analysis of linear electric circuits including nodal and mesh analysis, network theorems and their applications for direct-current circuits, transient circuits, and AC steady state analysis. Uses linear algebra, differential equations, and complex variables for circuit analysis. Incorporates the concept of building linear models for electronic components for the case of operational amplifiers and diodes. Develops practical skills for circuit simulation using computer software, assembling electronic circuits, and performing basic electrical measurements.

Prerequisites: ( PHYS171 )  
Corequisites: None

PHYS310 Physics Lab Development and Supervision (Min SH: 1, Max SH: 2)

Supervised experience in development and supervision of physics laboratory activities. Will include opportunity to design, develop, and construct laboratory and demonstration apparatus in physics, and to conduct laboratory classes under direct supervision of a physics faculty member. Offered by individualized instruction.

Prerequisites: ( PHYS171 )  
Corequisites: None

PHYS314 Atomic and Nuclear Physics w/o Lab (Min SH: 3, Max SH: 3)

An introduction to modern physics: atomic structure and spectra, radiation, wave and particle aspects of matter, quantum theory, radioactive decay, nuclear reactions, nuclear structure, elementary particles. Does not include a laboratory.

Prerequisites: None  
Corequisites: None

PHYS315 Modern Physics (Min SH: 4, Max SH: 4)

An introduction to modern physics: atomic structure and spectra, radiation, wave and particle aspects of matter, quantum theory, radioactive decay, nuclear reactions, nuclear structure, elementary particles.

Prerequisites: ( MATH243 AND PHYS171 )

Corequisites: None

PHYS328 Seminar-Science (Min SH: 3, Max SH: 3)

An examination of how scientists search for knowledge and try to gain an understanding of natural phenomena. This course also explores the interplay between science, technology, and other human activities locally and globally. Topics will be chosen based on the interest and expertise of the instructor.

Prerequisites: None

Corequisites: None

PHYS330 Mechanics 1 (Min SH: 3, Max SH: 3)

An intermediate course in Newtonian mechanics with emphasis on mathematical principles and methods. Topics include vector calculus, statics, dynamics, momentum and energy conservation, oscillations, central force motion, and two dimensional rigid body dynamics.

Prerequisites: ( PHYS171 )

Corequisites: None

PHYS331 Mechanics 2 (Min SH: 3, Max SH: 3)

Continuation of Mechanics with an emphasis on the variational methods of Lagrangian and Hamiltonian formalisms. Topics include generalized coordinates, symmetries, central forces, Euler's equations, normalized coordinates, strings and vibrations, and mechanics of rigid bodies in three dimensions.

Prerequisites: ( PHYS330 )

Corequisites: None

PHYS345 Mathematical Methods of Physics (Min SH: 2, Max SH: 2)

An introduction to the mathematical techniques of theoretical physics. Topics will include the partial differential equations and boundary value problems associated with wave motion, the diffusion of heat and quantum mechanical probability, and electromagnetic potentials and fields.

Prerequisites: ( MATH211 AND MATH301 AND PHYS171 )

Corequisites: None

PHYS350 Quantum Mechanics (Min SH: 3, Max SH: 3)

An advanced undergraduate level introduction into the principles, formalism and results of quantum mechanics including historical background, Schrodinger equations, particle in box, harmonic oscillator, one dimensional crystals, hydrogen atom, angular momentum, light and introduction to perturbation theory.

Prerequisites: ( MATH244 AND PHYS315 )

Corequisites: None

PHYS370 Electricity and Magnetism (Min SH: 3, Max SH: 3)

An intermediate course in electricity and magnetism focusing on Maxwell's equations and their properties. The course will concentrate on the concepts associated with electromagnetic fields and will introduce the mathematics used for their description.

Prerequisites: ( MATH142 AND PHYS171 )

Corequisites: None

PHYS371 Electrodynamics (Min SH: 3, Max SH: 3)

An exploration of electricity and magnetism that emphasizes fields within materials, electromagnetic radiation, and methods of solving static and dynamical problems.

Prerequisites: None

Corequisites: None

PHYS431 Advanced Physics Laboratory (Min SH: 3, Max SH: 3)

A project-based investigation of experimental physics drawn from an undergraduate foundation in physics including areas of current research. Sophisticated experimental methods and analysis will be used, with emphasis on independence and individual initiative in the planning, execution, and presentation of research.

Prerequisites: ( PHYS315 )

Corequisites: None

PHYS458 Advanced Applied Nanotechnology Laboratory (Min SH: 3, Max SH: 3)

Laboratory experience drawn from an undergraduate foundation in sciences including areas of current research in nanotechnology. Experimental methods and analysis are used, with emphasis on group and individual work in the planning, execution, and presentation of research. Students may repeat for credit.

Prerequisites: ( PHAP206 )

Corequisites: None

POLI101 Political Science (Min SH: 3, Max SH: 3)

A comprehensive approach to political fundamentals: theory and organization of the modern state; the theory, processes, and ideologies of all types of governments. Basic to further study of the structure and function of government.

Prerequisites: None

Corequisites: None

POLI105 American National Government (Min SH: 3, Max SH: 3)

An introduction to the study of American politics. Topics include the foundations of American political thought, governing principles under the U.S. Constitution, major governmental institutions (Congress, the presidency, the court system, bureaucracy), elections, political parties, public opinion, and outstanding public policy issues in the United States.

Prerequisites: None

Corequisites: None

POLI107 World Politics (Min SH: 3, Max SH: 3)

An introduction to the fields of international relations. The course reviews the evolution of the modern international system and introduces basic theories and models used by political scientists and others in analyzing world politics. Primary emphasis on the post-Cold War "world order" and major issues confronting the international state system.

Prerequisites: None  
Corequisites: None

POLI119 First Year Student Seminar (Min SH: 1, Max SH: 1)

Introduces students to the culture and mission of the University and its programs of study, with a particular emphasis on the social sciences. Explores the purpose of a liberal arts education as a foundation for professional development and life-long learning. Through class discussion of readings and activities, students are engaged in active learning and the development of effective college study skills.

Prerequisites: None  
Corequisites: None

POLI200 Introduction to Political Inquiry and Action (Min SH: 3, Max SH: 3)

Prepares students for advanced study in political science by introducing the various modes of political inquiry, competing theories of democracy, and the range of methods and information resources used in the study of politics and public policy.

Prerequisites: ( POLI101 ) OR ( POLI105 ) OR ( POLI107 )  
Corequisites: None

POLI210 State and Local Government (Min SH: 3, Max SH: 3)

Examines the political process, governmental institutions, and the politics of governing at the state and local levels. Special effort will be made to examine Pennsylvania examples.

Prerequisites: None  
Corequisites: None

POLI230 Political Parties and Elections (Min SH: 3, Max SH: 3)

A study of elections in the United States. Classes describe state and national electoral systems (e.g. types of primaries, the electoral college), campaign laws, party structures, and voting patterns. The course addresses how these features affect the conduct of election campaigns. Students also learn theoretical and comparative concepts for analysis, placing the U.S. in the context of other countries and considering the implications of political parties and electoral politics for the development and maintenance of democracy.

Prerequisites: None  
Corequisites: None

POLI250 US Foreign Policy (Min SH: 3, Max SH: 3)

An examination of the nature of foreign policy, the manner in which foreign policy is formulated and executed in a democracy, and the objectives and limits of U.S. Foreign Policy. Emphasis is placed on U.S. Foreign Policy since 1945.

Prerequisites: None  
Corequisites: None

POLI260 Intro Public Administration (Min SH: 3, Max SH: 3)

Survey of governmental administration in the U.S. with particular emphasis on the national government. Organization and management, budgeting, personnel, planning and public relations.

Prerequisites: None  
Corequisites: None

POLI301 Comparative Government (Min SH: 3, Max SH: 3)

An analysis of the methods and scope of the comparative study of government, and an examination of political systems in selected countries with a focus on well established industrialized system.

Prerequisites: None  
Corequisites: None

POLI305 Congress and the Presidency (Min SH: 3, Max SH: 3)

Examines the nature of the relationship and interdependencies between the Congress and the Presidency of the United States. Focuses on the constitutional powers of these respective institutions of American national government. Substantive areas that will be examined include, but are not limited to: the historic origins of federalism and the separation of powers model of American Constitutionalism; the changing role(s) and functions of the respective institutions regarding domestic and foreign policy; the electoral processes that shape and influence Congressional and Presidential decision-making; the impact and consequences of the rise of the federal bureaucracy in the U.S.; and the social, political, and economic forces that have shaped contemporary Congressional and Presidential relations.

Prerequisites: None  
Corequisites: None

POLI308 African Politics (Min SH: 3, Max SH: 3)

A survey and analysis of African politics. Provides a grounded understanding of the various contextual stages (pre-colonial, colonial, post-colonial, and post-post-colonial) that have shaped and continue to influence African politics and policy.

Prerequisites: None  
Corequisites: None

POLI312 Media and Politics (Min SH: 3, Max SH: 3)

An exploration of the effects of the media (print, broadcast, electronic, and film) on political behavior in the American political system.

Prerequisites: None  
Corequisites: None

POLI315 Politics in Developing Nations (Min SH: 3, Max SH: 3)

Students will be introduced to the most prominent theories of political development and the major political, economic, and social issues common to developing nations.

Prerequisites: None  
Corequisites: None

POLI320 Latin American Politics (Min SH: 3, Max SH: 3)

Study of selected Latin American political systems in the 20th century, analyzing the impact of cultural and socio-political forces on modernization and political development. Through the study of several cases, students will develop an understanding of the historical roots of issues facing Latin America today.

Prerequisites: None

Corequisites: None

#### POLI322 International Political Economy (Min SH: 3, Max SH: 3)

An introduction to international political economy, the study of the interaction of politics and economics in the international system. Includes discussion of how politically motivated policies and dynamics influence economic activity and how economic interests and calculations influence political events. Highlights the impact of international economic dynamics and institutions on domestic political, economic, and social conditions as well as the influence of domestic political structures and economic interests on the international system.

Prerequisites: None

Corequisites: None

#### POLI325 Labor-Management Relations (Min SH: 3, Max SH: 3)

An introduction to labor-management relations and collective bargaining in the United States. This course examines the history and changing legal, social, and global environment of unionism. Classes devote substantial attention to the collective bargaining process and the administration of labor agreements. Students will consider the outcomes and implications of collective bargaining in the areas of wages and benefits, employee discipline, and equal rights. The course also includes attention to public sector and international collective bargaining.

Prerequisites: None

Corequisites: None

#### POLI328 Seminar-Social Science (Min SH: 3, Max SH: 3)

A thematic or topical approach, with emphasis on historical/political/economic analysis. Treatment of historical, contemporary and/or comparative topics (for example, the historical roots and contemporary practice of terrorism and its political and economic impact; the impact of imperialism --political, economic, and historical-- in different global areas; the frontier experience of Russian Siberia and the American West) within a framework provided by the instructor.

Prerequisites: None

Corequisites: None

#### POLI330 Public Policy (Min SH: 3, Max SH: 3)

An overview of the study of public policy, with emphasis on public policy in the U.S. but including some comparative perspectives. Introduces theories of the policy making process and methods of policy analysis. Explores the political environment and policy issues in several substantive policy areas, such as economic policy, social welfare, health, education, environment, and energy.

Prerequisites: ( POLI105 ) OR ( POLI210 ) OR ( POLI260 ) OR ( ECON101 )

Corequisites: None

#### POLI350 International Relations (Min SH: 3, Max SH: 3)

The study of current diplomatic, economic, and political problems as they affect the balance of power, disarmament, the East-West struggle, the United Nations and the emerging states of Africa and Asia.

Prerequisites: None  
Corequisites: None

POLI370 United Nations and International Organizations (Min SH: 3, Max SH: 3)

A rapid survey of the history of international organizations prior to the United Nations and an intensive study of the United Nations. Emphasis upon the purposes, principles, membership, structure, and functions of the U.N. Attention to other international organizations for such purposes as mutual security, disarmament, and the pacific settlement of international disputes.

Prerequisites: None  
Corequisites: None

POLI380 Constitutional Law (Min SH: 3, Max SH: 3)

Analysis of the American constitutional system and its principles, with emphasis upon the Constitution, the Supreme Court, and judicial review. Constitutional principles, as applied by the Courts, to Congress, the President, federalism, state powers, and civil liberties.

Prerequisites: None  
Corequisites: None

POLI381 Law and Society (Min SH: 3, Max SH: 3)

A study of American legal institutions and process. Common law, statutory law, administrative law, and constitutional law. The majority of the substantive materials in the course will be drawn from issues involving freedom of expression.

Prerequisites: None  
Corequisites: None

POLI385 Constitutional Law II: Civil Liberties and Civil Rights (Min SH: 3, Max SH: 3)

One of two courses in the analysis of the American constitutional system and its principles, this course presents fundamental principles of civil liberties and civil rights, including the First Amendment, the rights of the accused, anti-discrimination, and voting rights.

Prerequisites: None  
Corequisites: None

POLI390 Political Theory 1 (Min SH: 3, Max SH: 3)

The history of Western political thought from the Greeks through the 18th century. Theories pertaining to the nature of the state and the legitimate objectives of governments: authority, sovereignty, law, liberty, etc.

Prerequisites: None  
Corequisites: None

POLI391 Political Theory 2 (Min SH: 3, Max SH: 3)



This is an advanced elective course in political theory focusing on major issues in 20th century political philosophy. An understanding of the Western tradition of political theory developed in POLI390 will be used as the background for a survey of major ideologies and for an in-depth exploration of three philosophic issues: freedom, equality, and democracy.

Prerequisites: None  
Corequisites: None

POLI405 Senior Capstone Management Seminar (Min SH: 3, Max SH: 3)

The seminar is intended to be an educational experience in which specialized skills and concepts introduced in individual courses in the major are integrated through investigation and discussion of broader issues in management.

Prerequisites: None  
Corequisites: None

PSYC100 Intro to Psychological Science (Min SH: 3, Max SH: 3)

Introduces students to the field of psychology, the scientific study of behavior, including actions, thoughts, and feelings.

Prerequisites: None  
Corequisites: None

PSYC102 Child Development (Min SH: 3, Max SH: 3)

An introduction to the major developmental processes that occur in childhood between conception and the onset of adolescence, including both normal and problematic aspects of development.

Prerequisites: None  
Corequisites: None

PSYC103 Adolescent Development (Min SH: 3, Max SH: 3)

An introduction to the major developmental processes that occur during the period of adolescence and early adulthood (from the onset of puberty to the mid-20s), including both normal and problematic aspects of development.

Prerequisites: None  
Corequisites: None

PSYC119 First Year Student Seminar (Min SH: 1, Max SH: 1)

An introduction to the culture and mission of the university within the context of an academic discipline. The class will explore the purpose of college education, and students will be provided an opportunity to engage within the discipline of psychology. Students are introduced to basic learning and study skills within a content area. Through class readings, students engage in active learning. Co-curricular activities and the incorporation of a mentoring component facilitate connections with fellow students and faculty.

Prerequisites: None  
Corequisites: None

PSYC201 Educational Psychology (Min SH: 3, Max SH: 3)

An introduction to the aspects of psychology related to the learning process and to the school as a social system. Among the topics considered are learning theories and their applications, the identification and evaluation of abilities and achievements,

the effects of social deprivation on intellectual development, characteristics of students and teachers, styles of teacher leadership, and instructional technology.

Prerequisites: ( PSYC102 ) OR ( PSYC103 )

Corequisites: None

#### PSYC202 Research Methods in Psychology (Min SH: 3, Max SH: 3)

An exploration of psychological research methodology and theory through readings, lectures, discussions, and exercises. Students acquire knowledge and skills in the use of science to answer questions related to psychology. Experimental, quasi-experimental, and non-experimental methodologies are explored. A central focus is to guide and assist students to become effective consumers of psychological information contained within both professional journals and the popular media.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

#### PSYC205 Applied Psychological Statistics (Min SH: 3, Max SH: 3)

Designed to enable students to understand and apply descriptive and inferential statistics used in psychological research. Students will learn basic statistical concepts and computational methods used to test psychological hypotheses. Students will become proficient in basic data analysis using a computer statistical analysis package (e.g., SPSS). Emphasis will be placed on how selecting appropriate statistics, interpreting statistical results, drawing appropriate conclusions from results, and communicating results using APA style.

Prerequisites: ( MATH107 AND PSYC202 )

Corequisites: None

#### PSYC207 Careers in Psychology (Min SH: 2, Max SH: 2)

Introduces to psychology majors the wide variety of career options available and the skills and knowledge necessary to achieve them.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

#### PSYC212 Forensic Psychology (Min SH: 3, Max SH: 3)

An introduction to the growing field of psychology and the law or forensic psychology. Students will learn how psychological principles can be applied to the criminal justice system, including profiling, custody evaluations, competency evaluations, jury decision-making, and eyewitness testimony. Students will also learn about various careers in which forensic psychology can play a role, such as interrogating, trial consulting, and child custody evaluation.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

#### PSYC215 Foundations of Biopsychology (Min SH: 3, Max SH: 3)

An introduction to the interactive role of our evolutionary past, our current genome, and immediate brain structure and activity on our thoughts, feelings, and actions. Students will learn the necessary background in evolutionary biology, behavioral genetics, neuroanatomy, and neurophysiology. Subsequently, students will apply those biological principles toward a fuller understanding of mental illness, sexual behavior, cerebral lateralization, neurological disorders, and emotion. Students will finish being able to understand and reflectively evaluate related science news and research.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

PSYC235 Interpersonal and Leadership Skills (Min SH: 3, Max SH: 3)

An introduction to the fundamental interpersonal and leadership skills of empathy, persuasive assertion, self-presentation, and mediation. The course addresses leadership theory and research in such areas as decision-making, ethics, team building, conflict management, and personal influence. The course includes service projects that develop skills in these areas.

Prerequisites: ( PSYC\*\*\* ) OR ( HONR180 )

Corequisites: None

PSYC240 Lifespan Development (Min SH: 3, Max SH: 3)

An introduction to the major theories of physical, cognitive, and socioemotional development from conception through death. Emphasis is placed on the role of people, contexts, and experiences in human development. Students will also learn about the research methods implemented to obtain information about human development.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

PSYC250 Social Psychology (Min SH: 3, Max SH: 3)

A study of individual behavior in social situations. The course focuses on how people think about, influence, and interact with others. Topics such as social cognition, social influence and social relations are explored and discussed. Students will learn about social psychological concepts, theories and research. Students will also apply social psychological concepts to everyday life.

Prerequisites: ( PSYC100 ) OR ( HONR180 )

Corequisites: None

PSYC306 History and Systems of Psychology (Min SH: 3, Max SH: 3)

An introduction to the historical antecedents of contemporary psychology from its foundation in philosophy and physiology through the major changes in the field over the last 200 years.

Prerequisites: ( PSYC\*\*\* AND PSYC\*\*\* AND PSYC100 ) OR ( HONR180 AND PSYC\*\*\* AND PSYC\*\*\* )

Corequisites: None

PSYC307 Abnormal Psychology (Min SH: 3, Max SH: 3)

Reviews the scientific study of psychological disorders. Assessment, diagnosis, and treatment are all discussed, with attention paid to the theoretical models that underlie current approaches in these areas. Students will study many of the most commonly diagnosed psychological disorders, along with the possible causes and available treatments for these disorders.

Prerequisites: None

Corequisites: None

PSYC308 Psychology of Personality (Min SH: 3, Max SH: 3)

An introduction to the field of personality psychology, specifically focusing on theories of personality. The course emphasizes various ways that personality has been explained as well as techniques used to research and assess personality. Students will study classic and current theories of personality development as well as empirical research support for the validity of each.

Prerequisites: ( PSYC\*\*\* AND PSYC100 ) OR ( HONR180 AND PSYC\*\*\* )  
Corequisites: None

PSYC310 Cognitive Psychology (Min SH: 3, Max SH: 3)

Addresses data and theories in perception and human information processing. An emphasis is placed on attention, memory, and visual as well as auditory processing.

Prerequisites: ( BIOL101 AND PSYC100 AND PSYC202 ) OR ( BIOL106 AND PSYC100 AND PSYC202 ) OR ( BIOL101 AND HONR180 AND PSYC202 ) OR ( BIOL106 AND HONR180 AND PSYC202 )  
Corequisites: None

PSYC313 Industrial and Organizational Psychology (Min SH: 3, Max SH: 3)

An introduction to the science of human behavior applied to industrial and organizational settings. Students learn the fundamentals of quality of work life, job analysis, research methods, testing and assessment, training, ergonomics, performance evaluation, work motivation, stress management, leadership, ethics, and group dynamics. Case studies or field experiences may be incorporated into this course.

Prerequisites: ( HONR180 ) OR ( PSYC100 )  
Corequisites: None

PSYC315 Health Psychology (Min SH: 3, Max SH: 3)

A survey of the psychology of health and wellness. Findings using the biopsychosocial model of health are discussed. Topics include preventive health; health promotion; stress, coping, illness, and responses to treatment; pain management; behavioral aspects of chronic illnesses such as heart disease and cancer; psychoneuroimmunology; patient-provider communication; and positive psychology in health.

Prerequisites: ( BIOL101 AND HPED140 AND PSYC100 ) OR ( BIOL101 AND PSYC100 AND RECR105 ) OR ( BIOL101 AND PSYC100 AND RECR205 ) OR ( BIOL101 AND HLTH105 AND PSYC100 ) OR ( BIOL106 AND HPED140 AND PSYC100 ) OR ( BIOL106 AND PSYC100 AND RECR105 ) OR ( BIOL106 AND PSYC100 )  
Corequisites: None

PSYC317 Sec Educ 2 Block: Educ Psycholog (Min SH: 3, Max SH: 3)

A study of knowledge about the learner, the learning process, and instructional planning, execution and assessment methodologies.

Prerequisites: None  
Corequisites: None

PSYC322 Drugs and Human Behavior (Min SH: 3, Max SH: 3)

Introduction to information about the physiological, psychological, and social effects of prescription, over the counter, and illegal drugs. Theories of addiction and methods of rehabilitation will be covered and the government agencies and laws which regulate the manufacture and distribution of drugs will also be considered. An emphasis will be placed on the narcotics, stimulants, depressants, hallucinogens, and marijuana.

Prerequisites: ( BIOL101 AND PSYC100 ) OR ( BIOL106 AND PSYC100 ) OR ( BIOL101 AND HONR180 ) OR ( BIOL106 AND HONR180 ) OR ( HLTH130 AND PSYC100 ) OR ( HLTH130 AND HONR180 )  
Corequisites: None

PSYC328 Seminar-Social Science (Min SH: 3, Max SH: 3)

A thematic approach to a psychological topic, with emphasis on relevance to current research and trends as well as areas of expertise of and interest to the faculty member teaching the seminar. The course is designed for discussion and exploration among upper-level students.

Prerequisites: None

Corequisites: None

PSYC330 Adult Development and Aging (Min SH: 3, Max SH: 3)

Examination of stability and change in the physical, intellectual, emotional, and social dimensions of adult life (beginning roughly at age 18). The major challenges, tasks, hazards, crises, achievements, and satisfactions typically experienced at each stage or era will be explored and discussed.

Prerequisites: ( PSYC100 AND PSYC102 ) OR ( PSYC100 AND PSYC103 ) OR ( PSYC100 AND PSYC240 ) OR ( HONR180 AND PSYC102 ) OR ( HONR180 AND PSYC103 ) OR ( HONR180 AND PSYC240 )

Corequisites: None

PSYC400 Advanced Topics Seminar (Min SH: 3, Max SH: 3)

An in-depth exploration of important contemporary topics in psychology in a seminar environment. Active student involvement includes scientific writing, presentation, and critical thinking about theory, research design, and results. The instructor teaching the course determines the topic area(s) to be covered.

Prerequisites: ( PSYC100 AND PSYC202 ) OR ( HONR180 AND PSYC202 )

Corequisites: None

PSYC402 Sensation and Perception (Min SH: 3, Max SH: 3)

An exploration of sensation and perception as interactive processes that form our understanding of the physical world. The course will build upon prior knowledge of the biological basis of behavior and psychological research skills. How information is gathered from the physical senses, converted into neural activity, and processed by the brain to create unique perceptions will be discussed. Students will critically evaluate relevant theories, developing an advanced understanding of the role of sensation in perception.

Prerequisites: ( BIOL101 AND PSYC215 ) OR ( BIOL106 AND PSYC215 )

Corequisites: None

PSYC409 Applying Research Methods in Psychology (Min SH: 3, Max SH: 3)

Provides students with practical experience in conducting psychological research. Students engage in the following activities: literature search, hypothesis construction, research design, data collection and analysis, and manuscript preparation. Students complete at least one class research project and one small group or individually designed research project. Students write research reports in APA format, as well as create and present a poster of their final project.

Prerequisites: ( MATH107 AND PSYC202 AND PSYC205 )

Corequisites: None

PSYC410 Physiological Psychology (Min SH: 3, Max SH: 3)

Provide students with an advanced understanding of the physiological mechanisms that govern human behavior. Neuroanatomical, neurochemical, and neurophysiological principles as related to psychopharmacology, sleep, ingestive

behavior, neurological disorders, and schizophrenia will be thoroughly examined. An emphasis on knowledge obtained from experimental research, often involving animals, will allow for the advanced exploration of the biological basis of behavior.

Prerequisites: ( BIOL101 AND PSYC100 AND PSYC215 ) OR ( BIOL106 AND PSYC100 AND PSYC215 ) OR ( BIOL101 AND HONR180 AND PSYC215 ) OR ( BIOL106 AND HONR180 AND PSYC215 )

Corequisites: None

PSYC421 Psychological Assessment (Min SH: 3, Max SH: 3)

Introduces theory and application of psychological assessments most commonly used for clinical and research purposes. Assessments of intellectual functioning, normal and abnormal personality, and career interest inventories are explored. This course does not prepare students to administer or interpret psychological assessments in professional settings.

Prerequisites: ( PSYC202 AND PSYC307 AND PSYC308 )

Corequisites: None

PSYC425 Psychology of Women (Min SH: 3, Max SH: 3)

An examination of the psychology of women including topics such as theoretical perspectives, research methods, development of gender roles, gender stereotypes, gender comparisons, women and work, love relationships, reproduction, sexuality, mental and physical health, and victimization of women.

Prerequisites: None

Corequisites: None

PSYC450 Psychotherapies (Min SH: 3, Max SH: 3)

An introduction to the major approaches to psychotherapy. Attention will be paid to the theoretical underpinnings of these approaches, their techniques and methods, as well as their demonstrated effectiveness. Course material will be applied to case examples.

Prerequisites: ( PSYC307 AND PSYC308 )

Corequisites: None

PSYC470 Counseling Skills (Min SH: 3, Max SH: 3)

An introduction to the basic skills used in counseling. A variety of skills will be examined, including listening skills, empathic responding, use of questions and probes, challenging skills, goal development, and strategy selection. The course will have an experiential component, through class demonstrations and simulated counseling sessions.

Prerequisites: ( PSYC450 )

Corequisites: None

PYAS300 Introduction to Physician Assistant Studies (Min SH: 3, Max SH: 3)

This course is designed as an introductory course for students contemplating a career as a physician assistant. The course will expose students to the history and development of the physician assistant profession, the role of the profession in American medicine, and skills required as a pre-requisite to entering the field. Particular emphasis will be placed on the role of physician assistants in caring for the needs of underserved populations. This course may be offered either face-to-face or via distance education.

Prerequisites: None

Corequisites: None

READ204 Primary Reading (Min SH: 3, Max SH: 3)

Emphasis will be placed upon the psychological, linguistic, and physical development of children and their language, and the relationship of reading to that development. Topics such as phonics, linguistics, basic sight and personal sight vocabularies, readability, and informal assessment of reading performance will be studied in detail through the use of appropriate modules.

Prerequisites: ( PSYC102 ) OR ( PSYC103 ) OR ( PSYC111 )

Corequisites: None

READ300 Intermediate Level Reading (Min SH: 3, Max SH: 3)

Emphasis will be placed on how to meet the needs of intermediate level readers, grades 3 through 6. A distinction is made between learning to read, which typically occurs in the primary grades, and reading to learn and enjoy, which occurs thereafter. Building upon competencies developed in READ204, the prerequisite course in which learning to read is explored, students in the Intermediate Reading course will examine methods used to support reading to learn and enjoy by developing a comprehensive understanding of methods for scaffolding the development of metacognitive strategies that support reading comprehension across the curriculum. Students will examine the research that underlies a strategic reading program; discover how to organize the classroom for effective scheduling, student grouping, behavior management, and optimal reading structure; learn effective assessment techniques; discover methods and resources for matching readers and books; and develop an understanding of methods used to address the specific needs of struggling intermediate level readers.

Prerequisites: EDUC202 AND EDUC204 AND READ204

Corequisites: None

RECR110 Intro to Recreation and Leisure (Min SH: 3, Max SH: 3)

Designed to give the student an awareness and understanding of the parks and recreation field. The student will have an opportunity to examine and evaluate the traits, competencies and preparation needed by recreational professional. The course includes an overview on the importance of play, history, and the influences of mass leisure.

Prerequisites: None

Corequisites: None

RECR119 First Year Seminar for Recreation Management Students (Min SH: 1, Max SH: 1)

An introduction to the culture and mission of the university within the context of an academic discipline. The class will explore the purpose of college education and provide an opportunity to engage within an academic discipline. Students are introduced to basic learning and study skills within a content area. Through class readings, students engage in active learning. Co-curricular activities and the incorporation of a peer mentor component facilitate connections with fellow students and faculty.

Prerequisites: None

Corequisites: None

RECR200 Principles of Personal Training and Aerobic Leadership (Min SH: 3, Max SH: 3)

Teach students the principles of physical conditioning in aerobic and anaerobic exercise programs. The students will learn personal training techniques, develop aerobic exercise leadership skills, and become aware of certification opportunities. The course emphasizes the application of exercise principles.

Prerequisites: ( RECR244 )

Corequisites: None

RECR202 Outdoor Recreation Activities (Min SH: 3, Max SH: 3)

Designed to teach student the basic skills and principles of backpacking and orienteering, cross country skiing, canoeing and rock climbing. Emphasis will be placed on learning skills and techniques for safe participation in the wilderness, proper use of equipment, while causing minimal impact and practicing "Leave No Trace" principles to protect the resource. Restricted to Recreation Management majors with a declared outdoor option; others by permission of the instructor.

Prerequisites: None

Corequisites: None

#### RECR203 Teambuilding and Challenge Course Facilitation (Min SH: 3, Max SH: 3)

Emphasizes the application of teambuilding through the use of adventure games, initiative problems (problem solving activities) and the newly constructed Lock Haven University high/low challenge course. Designed to teach students the principles of group processing and ropes course facilitation as it relates to the recreation industry. Students will experience a variety of adventure and experiential education activities; safety techniques related to these activities; and begin developing sound group processing and experiential facilitation techniques. This course is the initial step in training challenge course facilitators. Restricted to Recreation Management majors; other by permission of instructor.

Prerequisites: None

Corequisites: None

#### RECR204 Foundations of Therapeutic Recreation (Min SH: 3, Max SH: 3)

Designed to focus on a historical perspective of Therapeutic Recreation (TR) as well as critical philosophical and professional issues within the field. Additionally, the course includes a review of the current allied health fields, their role within the treatment approach and their philosophies. It is designed to meet the National Recreation and Park Association's (NRPA) competencies for accreditation. Restricted to Recreation Management/Therapeutic Recreation majors or with permission of instructor.

Prerequisites: None

Corequisites: None

#### RECR205 Nutrition for Wellness (Min SH: 3, Max SH: 3)

Designed to explore basic knowledge of contemporary nutrition practices. The course emphasizes the multi-directional relationships between nutrition and the social, emotional, environmental, and intellectual dimensions of wellness. The course specifically targets students' personal eating habits, an understanding of societal and cultural influences on those habits as well as the health consequences of those habits.

Prerequisites: None

Corequisites: None

#### RECR210 Field Participation in Recreation Management (Min SH: 3, Max SH: 3)

Designed to explore career interests and develop professional skills. Students are placed in an approved agency under the combined supervision of an agency professional and a university faculty member. The field experience provides an opportunity for students to apply their academic instruction in a professional setting within their career track.

Prerequisites: ( RECR105 AND RECR110 AND RECR244 )

Corequisites: None

#### RECR215 Travel and Tourism (Min SH: 3, Max SH: 3)



An examination of the role of tourism as an important factor in local, state, and national prosperity. It investigates the key components that are applicable to successful tourism management. Professional opportunities and the travel industry will be examined. This course also entails the study of tourism impacts, specifically analyzing social, environmental, and economic variables.

Prerequisites: ( RECR110 )

Corequisites: None

#### RECR244 Leadership in Recreation, Leisure and Human Services (Min SH: 3, Max SH: 3)

Designed to provide students with fundamental knowledge and experiences essential to the development of leadership competencies. Content includes an overview of leadership styles, communication skills, leadership in multi-cultural contexts, behavior management and conflict resolution. Additionally safety and ethical principles in leadership are addressed. These skills are essential for recreation and leisure professionals but are valuable for anyone in a human service profession.

Prerequisites: None

Corequisites: None

#### RECR275 Therapeutic Recreation and Inclusive Recreation Services for People with Disabilities (Min SH: 3, Max SH: 3)

Introduction to recreation services for people with disabilities. The course provides an overview of disabilities and diseases, attitudes toward people with disabilities, appropriate terminology, legislation that impacts disability services, and accessibility issues. Techniques for working with people with disabilities that include adaptation, evaluation procedures, needs assessment and modification will be addressed. It is designed to meet the National Recreation and Park Association (NRPA) competencies for accreditation.

Prerequisites: None

Corequisites: None

#### RECR290 Special Topics in Recreation Management (Min SH: 1, Max SH: 3)

A thematic topical approach to Recreation Management with an emphasis on experiential education, "learning by doing through direct experiences." Topics might include but are not limited to the following: international investigations of recreation management, external certifications related to the provision of recreation services, one-time offerings of specific recreation management courses, and field-based coursework. Restricted to recreation management major or permission of the instructor.

Prerequisites: None

Corequisites: None

#### RECR300 Special Event and Convention Center Management (Min SH: 3, Max SH: 3)

Explore special event and convention center management. Students will analyze the various components needed to manage special events with emphasis on conference planning. Topics will include stakeholder involvement, seasonality, theme-orientation, volunteerism, sponsorships, finance and budgeting as they relate to special events and convention center management.

Prerequisites: None

Corequisites: None

#### RECR301 Exercise Prescription (Min SH: 3, Max SH: 3)

The purpose of this course is to enable students to prescribe appropriate exercises based upon the client's tolerance for exercise. Special emphasis will be placed on risk factors, techniques for evaluation, physical conditions and their role in physical activity assessment and prescription.

Prerequisites: None  
Corequisites: None

RECR303 Sports Nutrition (Min SH: 3, Max SH: 3)

The relationship between exercise, athletic performance, and nutritional status will be examined in this course. Emphasis will be placed on dietary requirements necessary for successful sport performance.

Prerequisites: ( RECR205 ) OR ( CHEM111 ) OR ( HPED325 ) OR ( HONR200 )  
Corequisites: None

RECR304 Finance and Acquisition of Recreation Resources (Min SH: 3, Max SH: 3)

This course is designed to introduce students to the various methods employed to acquire funds/resources for recreation agencies. The focus of the course content will analyze taxing positioning strategies, complimentary assets of private and public recreation agencies, intergovernmental cooperation, sponsorship proposals, and capital funding mechanisms. Also communicates effective grant writing techniques.

Prerequisites: ( RECR110 )  
Corequisites: None

RECR305 Adv Activities and Outdoor Pursuit (Min SH: 0.5, Max SH: 0.5)

Active participation in adventure-based activities provides the foundation for students to explore the application and benefits of such programs in recreation and school settings.

Prerequisites: None  
Corequisites: None

RECR312 Teaching Conditioning Principles for Certification Testing (Min SH: 3, Max SH: 3)

Designed to teach students how to work with predominantly performance based populations and to give students supervised practical application of previously studied theory along with the opportunity to take accredited and nationally recognized certification exams. The certification exams consist of the following: (1) NSCA-CSCS, NSCA-CPT, (2) ACSM-Group Exercise Leader, Health/Fitness Instructor, Health/Fitness Director, Exercise Specialist, (3) AFAA-Step Certification, Personal Training/Fitness Counselor Certification, Advanced Personal Training Certification.

Prerequisites: ( RECR200 )  
Corequisites: None

RECR315 Program Planning and Design in Recreation (Min SH: 3, Max SH: 3)

Investigates the process of recreation programming using the program development cycle. Students will examine the philosophical foundations used in programming leisure experiences. Specifically, students will learn about needs assessments, writing goals and objectives, and considerations for budgeting and risk management. Additionally the process of program evaluations will be addressed.

Prerequisites: ( RECR244 )  
Corequisites: None

RECR320 Interpreting the Environment (Min SH: 3, Max SH: 3)

The course will survey the broad field of environmental interpretation as it is applied to various outdoor resource areas. Students will study the various interpretive methods that can be employed to establish a communication link between the visitor and the areas of natural and cultural resources. Students will have hands-on experience in a variety of interpretive situations.

Prerequisites: None

Corequisites: None

RECR325 Camp Counseling and Administration (Min SH: 3, Max SH: 3)

For those students especially interested in becoming competent camp counselors. Stress on understanding children in the camp environment, camp programs, activities, campcraft, and woodcraft. Fundamentals of camp administration will provide foundation for those seeking carrier preparation in camping.

Prerequisites: ( RECR244 )

Corequisites: None

RECR330 Marketing Recreation Services (Min SH: 3, Max SH: 3)

Explores service marketing with the focus on the recreation industry. The course will look at the similarities and differences in marketing products and services as well as the other variables of promotion, price, product, place and providers of marketing.

Prerequisites: None

Corequisites: None

RECR340 Commercial Recreation (Min SH: 3, Max SH: 3)

An examination of the role of commercial recreation as an important factor in the local, state, and national economy. It investigates the key components that are applicable to running a successful commercial recreation business. Operations management and entrepreneurial strategies will be addressed along with identifying key industries that make up the commercial recreation sector.

Prerequisites: None

Corequisites: None

RECR355 Outdoor Recreation (Min SH: 3, Max SH: 3)

Designed to analyze the present and future significance of outdoor recreation. Topics to be discussed include historical development, the role of agencies, professionalism, human and social values and functions, recreational opportunities and resources, and problems and issues in outdoor recreation.

Prerequisites: None

Corequisites: None

RECR356 Outdoor Education (Min SH: 3, Max SH: 3)

Outdoor Education is designed to provide students with the opportunity to develop skills to facilitate the environment as an extension of the classroom. The course will focus on the development and implementation of outdoor education programs for the public schools, parks, and other supporting agencies. A special emphasis will be placed on developing an awareness of the need to continue to acquire general knowledge of the environment while planning and conducting educational experiences in the outdoors.

Prerequisites: None  
Corequisites: None

#### RECR357 Intramural Supervision (Min SH: 3, Max SH: 3)

The student will explore the function of intramural programs within the larger recreational sports programming field. Specifics will be presented on the administration and supervision of sports programs. Students will have the opportunity for hands-on experience with the intramural program of the University.

Prerequisites: None  
Corequisites: None

#### RECR364 Therapeutic Recreation Assessment and Documentation (Min SH: 3, Max SH: 3)

Explores the current assessment tools, treatment approaches and documentation utilized within clinical therapeutic recreation services.

Prerequisites: None  
Corequisites: None

#### RECR365 Therapeutic Recreation Methods and Techniques (Min SH: 3, Max SH: 3)

An in-depth study of the facilitation techniques, modalities, and activities that a Therapeutic Recreation Specialist (TRS) will utilize when working with clients. A variety of settings and client groups will be discussed along with characteristics, contraindications, and protocols for utilizing Therapeutic Recreation (TR) services.

Prerequisites: None  
Corequisites: None

#### RECR405 Health Promotion at Worksite (Min SH: 3, Max SH: 3)

Designed to address basic issues and problems in planning, implementing, and evaluating health promotion/wellness programs in a variety of work site settings. Emphasis will be placed on providing students with the knowledge and practical skills needed to perform the responsibilities of a work site health promotion professional.

Prerequisites: ( RECR210 AND RECR301 )  
Corequisites: None

#### RECR410 Seminar in Current Issues in Recreation (Min SH: 3, Max SH: 3)

An examination of a variety of current issues in the areas of therapeutic recreation, outdoor recreation, fitness management, and community/commercial management. Students use a variety of texts, journals, interviews, electronic media, and newspapers to explore the selected topics. It is designed to meet the National Recreation and Park Association (NRPA) competencies for accreditation.

Prerequisites: None  
Corequisites: None

#### RECR415 Organization and Management of Recreation Agencies (Min SH: 3, Max SH: 3)

Designed for students to investigate and analyze anagement information from a variety of sources. The ultimate goal of this course is to have the student understand the complicated role of the manager in leisure service organizations with regard to

three major categories: General Management, Human Resource Management, and Executive Development. It is designed to meet the National Recreation and Park Association's (NRPA) competencies for accreditation.

Prerequisites: None

Corequisites: None

#### RECR420 Recreational Resource Management (Min SH: 3, Max SH: 3)

An investigation of the multiple elements of recreation resource management. Topics will include indoor and outdoor management theories, principles of planning and design, maintenance and risk management, environmental awareness integration, and site protection and renovation. Additional areas may include landscape design and architectural components. It is designed to meet the National Recreation and Park Association (NRPA) competencies for accreditation.

Prerequisites: None

Corequisites: None

#### RECR425 Professional Field Experience in Recreation (Min SH: 10, Max SH: 14)

Facilitates the transition from the academic environment to the professional world. During the internship the student will interact with professionals in a variety of programs and settings within their respective areas of specialization.

Prerequisites: None

Corequisites: None

#### RECR430 Assessment, Evaluation and Research for Recreation Services Method and Design (Min SH: 3, Max SH: 3)

An explanation of the processes and methods of research and evaluation in recreation services. The course explores evaluation and research foundations, methods, design, and application. It is intended to serve as a foundation for students who need skills for program evaluation and to conduct research in the field.

Prerequisites: None

Corequisites: None

#### SCI110 Science, Technology, and Society (Min SH: 3, Max SH: 3)

An introduction to physical science concepts such as harmonic motion, thermal expansion, electrical generation, energy, radiation, and basic nanotechnology in the context of important historical, scientific and technological advances as well as their impact on society.

Prerequisites: None

Corequisites: None

#### SCI201 Inquiry into Physical Science (Min SH: 3, Max SH: 3)

Provides a more adequate content background for teaching science in the elementary school. Emphasis is on individual student activity involving the handling of everyday equipment and supplies. Units cut across various fields of science including physics, chemistry, meteorology, and life science including fieldwork.

Prerequisites: None

Corequisites: None

#### SCI209 Secondary Science Methods 1 (Min SH: 3, Max SH: 3)

The first course in a two-course science teaching and learning methods sequence for prospective teachers in all science disciplines. Includes field experiences and practice teaching and is organized around the following topics: nature of science, science learning, scientific inquiry, history of science education, national and state science standards, diverse learners, direct instruction, demonstrations, constructivism, classroom safety and the ethical treatment of animals, and professionalism.

Prerequisites: ( PSYC103 AND SPEC204 )

Corequisites: None

#### SCI315 Secondary Science Methods 2 (Min SH: 4, Max SH: 4)

The second course in a two-course science teaching and learning methods sequence for prospective teachers in all science disciplines. Includes numerous field experience and practice teaching and is organized around the problems of practice, with an emphasis on teaching science as inquiry, instructional strategies, curriculum planning, assessment, inquiry-empowering technologies, reading and writing across the curriculum, teaching students with special needs, and professionalism. Experiences with various methods and tools as learners will include content from physics including Electricity and Magnetism.

Prerequisites: None

Corequisites: None

#### SCI415 Student Teaching and Practicum Secondary 1: Science (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

#### SCI416 Student Teaching and Practicum Secondary 2: Science (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

#### SCI493 Student Teaching and Practicum 1: Secondary Education Science (Min SH: 6, Max SH: 6)

The first of two capstone experiences (one at each level appropriate to certification areas and grade level ranges) for preservice teachers through a student teaching experience required for certification in Secondary Education in Biology, Chemistry, Earth & Space Science, General Science, or Physics. Supervised practice in classrooms with certified teachers and regular practicum sessions, according to prescribed guidelines, introduce the student to the range and scope of a professional educator's responsibilities.

Prerequisites: None

Corequisites: None

#### SCI494 Student Teaching and Practicum 2: Secondary Education Science (Min SH: 6, Max SH: 6)

The second of two capstone experiences (one at each level appropriate to certification areas and grade level ranges) for preservice teachers through a student teaching experience required for certification in Secondary Education in Biology, Chemistry, Earth & Space Science, General Science, or Physics. Supervised practice in classrooms with certified teachers and regular practicum sessions, according to prescribed guidelines, introduce the student to the range and scope of a professional educator's responsibilities.

Prerequisites: None

Corequisites: None

#### SOCI203 Social Problems (Min SH: 3, Max SH: 3)

A study of social and individual problems related to evolutions of social structure. This course investigates topics such as alcoholism, drug abuse, mental illness, violence and crime as they relate to social class, race and gender.

Prerequisites: ( SOCI101 )

Corequisites: None

#### SOCI205 Racial and Ethnic Relations (Min SH: 3, Max SH: 3)

An analysis is made of the processes involved when people of different racial, ethnic, and sociocultural origins meet and co-exist. While primary emphasis is given to racial and ethnic relations in the United States, the worldwide phenomena of prejudice and discrimination are also considered.

Prerequisites: ( SOCI101 )

Corequisites: None

#### SOCI206 Marriage and Family (Min SH: 3, Max SH: 3)

Examines the role of marriage and family in human societies and how the purposes and functions of each have changed over time. An explicitly cross-cultural/national approach is employed to introduce students to the diversity and similarities across the human experience around the world.

Prerequisites: None

Corequisites: None

#### SOCI300 Sociology of Deviance (Min SH: 3, Max SH: 3)

A study of behavior that is not normal. Part of the course focuses on the forces from a mainstream society itself that compel deviant behavior. Other parts are on interaction processes between deviant actors and mainstream society, the formation of subcultures and countercultures, and the evolution of social rules and crime. The course emphasizes attention to gender and racial social structures.

Prerequisites: ( SOCI101 )

Corequisites: None

#### SOCI301 Juvenile Delinquency (Min SH: 3, Max SH: 3)

An analysis of the nature of juvenile delinquency, theories of causation, methods of treatment, and suggested methods of prevention.

Prerequisites: ( SOCI101 )

Corequisites: None

SOCI328 Seminar-Social Science (Min SH: 3, Max SH: 3)

Social science seminar.

Prerequisites: ( SOCI101 )

Corequisites: None

SOCI330 Japanese Culture and Society (Min SH: 3, Max SH: 3)

The course will use sociological and anthropological perspectives to understand Japanese culture and society. The course will highlight various social institutions and cultural elements of the Japanese society, namely education, religion, popular culture, group dynamics, marriage and the family, and economy. Through the multidisciplinary approach, the course will investigate both historical as well as contemporary issues concerning Japan.

Prerequisites: ( SOCI101 ) OR ( ANTH101 ) OR ( ANTH102 )

Corequisites: None

SOCI352 Sociological Theory (Min SH: 3, Max SH: 3)

An exploration of the evolution of social thought leading to the systematic and scientific basis of modern sociology and systematic analysis of major schools of modern sociological theory.

Prerequisites: ( SOCI101 )

Corequisites: None

SOCI354 Social Change (Min SH: 3, Max SH: 3)

An inquiry into the nature of social change--its causes, processes, and consequences--and a critical examination of theories of social change and their applications to the comparative analysis of Western and Asian societies.

Prerequisites: ( SOCI101 )

Corequisites: None

SOCI360 Death and Dying (Min SH: 3, Max SH: 3)

An exploration of the various ways societies have sought to understand and cope with death. Consideration is given to the way individuals, families, and societies have formulated policy and administrative procedures to make institutions more humane in their response to the terminally ill and the bereaved.

Prerequisites: ( SOCI101 ) OR ( PSYC100 ) OR ( HONR180 )

Corequisites: None

SOCI402 Industrial Sociology (Min SH: 3, Max SH: 3)

An inquiry into the cultural and economic forces that both create and result from a society's productive capacity. This course concentrates on the American situation including its history, its position in the global division of labor and its experiences with race and gender.

Prerequisites: ( SOCI101 )

Corequisites: None

SOCI403 Social Gerontology: Sociology of Aging (Min SH: 3, Max SH: 3)



A sociological analysis of the problems confronting the aged in modern bureaucratic society. Emphasis is placed on the influence that various structures--groups, associations, and institutions have on the changing statuses and roles of individuals in society.

Prerequisites: ( SOCI101 )  
Corequisites: None

#### SOCI404 Sociological Research (Min SH: 3, Max SH: 3)

Preparation for critical consumption of research in the behavioral sciences and for graduate-level education in research methodology. This course covers quantitative methodologies: Sampling, measurement, survey design and analysis. This course also covers qualitative methodologies including participant observation and semi-structured interviewing. Students experience intensive writing processes by articulating results to lay audiences.

Prerequisites: ( MATH107 AND SOCI101 AND SOCI352 )  
Corequisites: None

#### SOCI410 Sociology of Organizations (Min SH: 3, Max SH: 3)

A study of informal and formal organizations in the contexts of work, voluntary agencies, and/or the military. This course investigates the creation, evolving structures, and evolving functions of such organizations and their consequences on social class, race and gender.

Prerequisites: ( SOCI101 )  
Corequisites: None

#### SOCI425 Economic Sociology (Min SH: 3, Max SH: 3)

An inquiry into value, symbols of value and the motives for production and consumption. The course includes topics such as the construction of currency, the comparison between free markets and central planning, the evolution and function of inequality, an analysis of stratification and an examination of cultures associated with social classes. The course integrates race and gender as important independent and dependent variables.

Prerequisites: ( SOCI101 )  
Corequisites: None

#### SOCW102 Introduction to Social Work (Min SH: 3, Max SH: 3)

Introduction to social work values, ethics, knowledge, functions, and roles necessary for practice by generalist practitioners. Provides a foundation in the historical roots and theoretical underpinnings of the social work profession. The social welfare system and social environment in which individuals, families, groups, organizations, neighborhoods, and communities participate are studied from a systems perspective. Special emphasis on empowering marginalized and oppressed populations.

Prerequisites: None  
Corequisites: None

#### SOCW110 Diverse Populations and Groups (Min SH: 3, Max SH: 3)

An introduction to diverse populations and groups and provides information about differences based on age, class, color, culture, disability, ethnicity, gender identity and expression, immigration status, political ideology, race, religion, sex, and sexual orientation based on a global perspective. This course helps students develop tools for increased understanding of and sensitivity to human diversity and cultures different from their own from all parts of the globe. Students will gain knowledge, disciplinary skills, ethical reasoning, and appreciation of international and multicultural perspectives needed to conduct themselves as responsible social workers in the world.

Prerequisites: None  
Corequisites: None

#### SOCW119 First Year Seminar for Social Work Students (Min SH: 1, Max SH: 1)

An introduction for social work majors to the university learning environment. Students are introduced to the competencies and practice behaviors they will learn through the social work program. The course also covers specific learning strategies, classroom technologies and institutional resources that might help them achieve their goals.

Prerequisites: None  
Corequisites: None

#### SOCW201 Human Behavior in the Social Environment 1 (Min SH: 3, Max SH: 3)

An introduction to the normal processes of sequential physical, emotional, socio-cultural and spiritual development from conception through adolescence. It emphasizes common stresses and crises effecting normal development and relates these to social work practice. The course utilizes a social systems framework to focus on why humans behave the way they do in the context of living in our society.

Prerequisites: ( SOCW102 )  
Corequisites: None

#### SOCW203 Human Behavior and Social Environment 2 (Min SH: 3, Max SH: 3)

An introduction to the normal processes of sequential physical, emotional, socio-cultural and spiritual development from young adulthood to late adulthood. It emphasizes common stresses and crises effecting normal development and relates these to social work practice. The course utilizes a social systems framework to focus on why humans behave the way they do in the context of living in our society.

Prerequisites: ( SOCW102 )  
Corequisites: None

#### SOCW210 Case Management (Min SH: 3, Max SH: 3)

An introduction to the processes of case management and professional writing. The course emphasizes common engagement of clients and case managers and how clients and case managers make meaning together. The course utilizes the following: 1) a solution focused conceptual framework to focus on collaborative partnerships and goal formation; and 2) a generalist social work perspective for writing in a professional setting.

Prerequisites: ( SOCW102 )  
Corequisites: None

#### SOCW301 Social Work Practice 1 (Min SH: 3, Max SH: 3)

An introduction to knowledge, values and skills for generalist micro practices. Class emphasizes self-knowledge, use of self as a change agent, and understanding social work values. It integrates oppression and strategies for combating it, and developing skills interpersonal interviewing and problem-solving.

Prerequisites: ( SOCW201 )  
Corequisites: None

#### SOCW302 Social Work Practice 2 (Min SH: 3, Max SH: 3)

An introduction to the dynamic and interactive processes of engagement, assessment, intervention, and evaluation of families and groups. Theoretical knowledge and practical skills used in working with groups and families will be explored and developed. This course addresses Educational Policy and Assessment Standards (EPAS) which are the accreditation standards for undergraduate social work programs.

Prerequisites: ( SOCW203 AND SOCW301 )

Corequisites: None

#### SOCW310 Social Policy and Practice (Min SH: 3, Max SH: 3)

This course involves an exploration of the development of social welfare programs. It includes content about the history of social work, the history and current structure of social welfare services and the role of policy in service delivery, social work practice, and the attainment of individual and social well being. Students will understand and demonstrate social policy skills in regard to economic, political, and organizational system.

Prerequisites: ( SOCW204 AND SOCW404 )

Corequisites: None

#### SOCW335 Social Work Practice with Groups (Min SH: 3, Max SH: 3)

Introduction to the dynamic and interactive processes of engagement, assessment, intervention, and evaluation of groups. Theoretical knowledge and practical skills used in working with groups will be explored and developed.

Prerequisites: ( SOCW301 )

Corequisites: None

#### SOCW360 Death and Dying (Min SH: 3, Max SH: 3)

Explores the various ways societies have sought to understand and cope with death. Consideration is given to the way individuals, families, and societies have formulated policy and administrative procedures to make institutions more humane in their response to the terminally ill and bereaved.

Prerequisites: ( PSYC100 AND SOCI101 ) OR ( HONR180 AND SOCI101 )

Corequisites: None

#### SOCW401 Field Instruction and Professional Seminar 1 (Min SH: 6, Max SH: 6)

Students are placed in a community agency under the supervision of an experienced social worker and a social work faculty member. Students are expected to develop an in-depth understanding of agency activities, programs, and services, and will assume increasing levels of responsibility as beginning level generalist social workers. Attendance at weekly seminars is required. The integration/generalization of conceptual content and problem specific knowledge in the field practice experience is a cycle of inquiry from specific practice experiences to concept/theory and back again in a series of cycles.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW203 AND SOCW204 AND SOCW301 AND SOCW302 AND SOCW404 AND SOCW412 )

Corequisites: None

#### SOCW402 Field Instruction and Professional Seminar 2 (Min SH: 6, Max SH: 6)

Students are placed in a community agency under the supervision of an experienced social worker and a social work faculty member. Students are expected to develop an in-depth understanding of agency activities, programs, and services, and will assume increasing levels of responsibility as beginning level generalist social workers. Attendance at weekly seminars is

required. The integration/generalization of conceptual content and problem specific knowledge in the field practice experience is a cycle of inquiry from specific practice experiences to concept/theory and back again in a series of cycles.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW203 AND SOCW204 AND SOCW301 AND SOCW302 AND SOCW404 AND SOCW412 )

Corequisites: None

SOCW404 Rural Social Work (Min SH: 3, Max SH: 3)

This course is designed to further develop and fine tune generalist social work skills at all levels of intervention (including individuals, families, organizations and communities). Course content will focus on rural practice and the types of situations that students will encounter in micro practice, understanding and working with families, and working in and with organizations and communities. Advocacy, striving for social and economic justice, and macro level change will be stressed.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW203 AND SOCW301 AND SOCW302 AND SOCW412 )

Corequisites: None

SOCW411 Social Work with Diverse Populations & Groups (Min SH: 3, Max SH: 3)

Utilizing a problem-solving approach within an ecological systems framework, this course examines social service delivery with selected client populations and focuses on some of the newer intervention strategies that are available through a variety of agency settings and social service programs. Case Management in social work practice will be a focal concern.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW203 AND SOCW301 )

Corequisites: None

SOCW412 Applied Social Research (Min SH: 3, Max SH: 3)

Provides a basic overview of practice experience to inform research, evidence based interventions, evaluation of practice, and use of research findings to improve practice, policy, and social service delivery. Covers quantitative and qualitative research and scientific and ethical approaches to knowledge building.

Prerequisites: ( SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* AND SOCW\*\*\* )

Corequisites: None

SOCW415 Child Welfare Services (Min SH: 3, Max SH: 3)

Designed to explore contemporary child welfare issues utilizing the systems and ecological perspectives, integrated with a problem-solving approach. Allows students to understand major concepts and issues related to children and their families at the micro, mezzo, and macro levels of service delivery and establishes a skill-base for promoting change and addressing oppression of children and families.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW301 )

Corequisites: None

SOCW420 Field Placement Seminar (Min SH: 3, Max SH: 3)

The senior seminar, which accompanies field instruction, is designed to serve as a capstone course, and an integrating methods seminar.

Prerequisites: ( SOCW102 AND SOCW201 AND SOCW203 AND SOCW204 AND SOCW301 AND SOCW302 AND SOCW404 AND SOCW412 )

Corequisites: None

SOCW425 Social Policy and Services (Min SH: 3, Max SH: 3)

An examination of social welfare policies, programs, and social, political and economic issues in their historical, societal and organizational context. This class covers the scientific method applied to analyzing the political and organizational process in policy, process of policy formulation, social justice and advocacy, and the relationship between social policy and social work goals and objectives.

Prerequisites: ( SOCW301 )

Corequisites: None

SOCW426 Advanced Social Welfare Policy (Min SH: 3, Max SH: 3)

An examination of several social welfare policy areas, including social inequality, poverty, health care, and housing are examined as they relate to the students' field placements. Students utilize the policy analysis process, including the analysis of ideologies and values as they shape policy formulation, the process by which legislation is proposed and enacted, the role of advocacy, and the challenges of policy implementation and evaluation.

Prerequisites: None

Corequisites: None

SPAN101 Spanish 1 (Min SH: 3, Max SH: 3)

An introduction to Spanish speech sounds, their discrimination, production and transcription, the vocabulary in context and basic speech patterns, and development of essential grammatical concepts. Conversation and readings.

Prerequisites: None

Corequisites: None

SPAN102 Spanish 2 (Min SH: 3, Max SH: 3)

An introduction to Spanish speech sounds, their discrimination, production and transcription, the vocabulary in context and basic speech patterns, and development of essential grammatical concepts. Conversation and readings.

Prerequisites: None

Corequisites: None

SPAN105 Basic Spanish for Criminal Justice (Min SH: 3, Max SH: 3)

Develops Spanish language skills necessary for various criminal justice professions. Includes emphasis on Latino culture and may include visits to the local prison to interact with Hispanic inmates. Not a comprehensive introduction to the Spanish language. No previous knowledge of Spanish language required. Not a substitute for SPAN101.

Prerequisites: None

Corequisites: None

SPAN110 Basic Spanish for Medical Personnel (Min SH: 3, Max SH: 3)

A basic Spanish language skills course for various medical professions and medical service personnel. It includes emphasis on Latino culture and may include visits to hospitals to interact with medical workers/Hispanic patients. This course is not a comprehensive introduction to the Spanish language and thus not a substitute for SPAN101. No previous knowledge of Spanish language is required. No restrictions on enrollment.

Prerequisites: None  
Corequisites: None

SPAN201 Spanish 3 (Min SH: 3, Max SH: 3)

A review of fundamental facts and skills, followed by progressively more extensive and complex exercises in listening, speaking, and reading. Emphasis the second semester is on the retention and application of Spanish idiom in written composition from paragraph to theme. Prepares the student for mature reading and discussion in Spanish and for the pursuit of advanced courses.

Prerequisites: None  
Corequisites: None

SPAN202 Spanish 4 (Min SH: 3, Max SH: 3)

A review of fundamental facts and skills, followed by progressively more extensive and complex exercises in listening, speaking, and reading. Emphasis the second semester is on the retention and application of Spanish idiom in written composition from paragraph to theme. Prepares the student for mature reading and discussion in Spanish and for the pursuit of advanced courses.

Prerequisites: None  
Corequisites: None

SPAN203 Culture of Spain (Min SH: 3, Max SH: 3)

Covers the evolution of Spanish culture in all of its diverse facets. Readings, recordings, videos and material from the internet are used to analyze Spain and her people in the past and present. Written and oral reports, lectures and discussions in Spanish.

Prerequisites: None  
Corequisites: None

SPAN205 Beginning Spanish Composition and Conversation (Min SH: 3, Max SH: 3)

Designed to improve and develop written and oral expression in Spanish. Some attention will be paid to correctional phonetics. This course is conducted in Spanish.

Prerequisites: None  
Corequisites: None

SPAN215 Presentations from Hispanic Theatre (Min SH: 3, Max SH: 3)

The presentation of one-act contemporary Hispanic plays or of scenes from longer works of dramatic literature. Pronunciation exercises, play analysis, written exercises, and an introduction to basic techniques for the presentation of dramatic material will all serve to enable the student to deliver assigned lines in a natural and convincing manner.

Prerequisites: None  
Corequisites: None

SPAN300 Advanced Conversation through Hispanic Film (Min SH: 3, Max SH: 3)

Written and oral analyses of a number of outstanding Hispanic films serve to develop further students' ability to communicate in Spanish.

Prerequisites: None  
Corequisites: None

SPAN307 Intro Spanish Literature (Min SH: 3, Max SH: 3)

An examination of the different literary genres as represented by selected works of outstanding Spanish authors. Introduces the student to the basic techniques of literary analysis and to the principal themes and unique characteristics of the literature produced in Spain. Motivates and prepares students for more specialized independent reading and investigation.

Prerequisites: None  
Corequisites: None

SPAN308 Intro Spanish American Literature (Min SH: 3, Max SH: 3)

Selected readings in prose fiction, drama, and poetry from all periods. Emphasis is placed on the fundamentals of literary theory as reflected in the works read. This course is conducted in Spanish.

Prerequisites: None  
Corequisites: None

SPAN312 Advanced Spanish (Min SH: 3, Max SH: 3)

An intensive study of Spanish, providing review of basic grammar as well as examining more advanced topics not treated in Spanish I-IV. Emphasis on problem areas of the language through a variety of exercises and applications of grammar principles.

Prerequisites: None  
Corequisites: None

SPAN313 Intermediate Spanish Composition and Conversation (Min SH: 3, Max SH: 3)

Designed to develop in the student a facility in the use and comprehension of oral Spanish, as well as in reading and written expression. This course is conducted in Spanish.

Prerequisites: None  
Corequisites: None

SPAN318 Spanish Drama 2 (Min SH: 3, Max SH: 3)

A study of the major works of the Spanish theater from the second half of the 19th century until the present time. Trends in the evolution of modern drama will be identified and analyzed and the nature of a dramatic work in performance will be considered.

Prerequisites: None  
Corequisites: None

SPAN320 Contemporary Spanish Women's Fiction (Min SH: 3, Max SH: 3)

Focuses on the Spanish narrative written by outstanding female authors from the Spanish Civil War to the present. The novels and short stories to be studied in class are examples of a new female identity and subjectivity and of women's struggle for individuality.

Prerequisites: None  
Corequisites: None

SPAN322 Spanish American Regionalist Novel & the Short Story (Min SH: 3, Max SH: 3)

Application of literary concepts to selected readings in the novel and short story "of the land" from the 19th and early 20th centuries. Typical works treat the native and the common man. This course is conducted in Spanish.

Prerequisites: None

Corequisites: None

SPAN323 Spanish American Contemporary Novel and the Short Story (Min SH: 3, Max SH: 3)

Application of literary concepts to selected readings of the Spanish American novel and short story of the contemporary period including such authors as Borges, Carpentier, Fuentes, Garcia Marquez. This course is conducted in Spanish.

Prerequisites: None

Corequisites: None

SPAN328 Seminar-Humanities (Min SH: 3, Max SH: 3)

A study of major films produced in Spain, with emphasis on the three leading directors: Luis Buñuel, Carlos Saura and Pedro Almodóvar. (All films are subtitled; no knowledge of Spanish is necessary for the seminar.) Basic concepts of film criticism will be applied to analyses of films and social history and aesthetic movements will be considered where necessary to an understanding of specific films.

Prerequisites: None

Corequisites: None

SPEC101 Multicultural Education (Min SH: 3, Max SH: 3)

This course will examine diversity among people. By exploring contributors of diversity such as religion, gender, sexual preferences, socioeconomic class, race, ethnicity, and disabilities, students will gain an understanding of the need for a multicultural approach to education. Several different multicultural education approaches will be explored with emphasis on implications to special education programs. This course sets the tone of the "people first" philosophy as used in SPEC 105.

Prerequisites: None

Corequisites: None

SPEC105 Foundations of Special Education (Min SH: 3, Max SH: 3)

Designed to address the definitions, characteristics, etiologies, educational and transitional needs of, interventions and strategies for diverse learners and individuals with exceptional learning needs (ELN) through a life span approach. The content of this course meets the standards of the Council for Exceptional Children (CEC) as set forth in the Common Core (CC), the General Curriculum (GC), and the Independence Curriculum (IC).

Prerequisites: None

Corequisites: None

SPEC202 Cultural and Linguistic Diversity in Education (Min SH: 3, Max SH: 3)

Designed to provide an introduction to multicultural and global education as a concept. Students will examine personal awareness and attitudes, cultural knowledge, instructional strategies, and curricular resources impacting PreK-12. Consideration will be given to the instructional needs of English Language Learners (ELL) and effective teaching/learning theories, approaches, research results, and public policies that pertain to diverse learners.



Prerequisites: None  
Corequisites: None

#### SPEC204 Cognitive Development of Diverse Learners (Min SH: 3, Max SH: 3)

Addresses the definitions, characteristics, and educational, social, and emotional needs of diverse learners. Emphasis will be given to the legal rights and responsibilities inherent in the field of special education. Assessment procedures for eligibility, program design and performance monitoring will also be addressed.

Prerequisites: ( PSYC102 ) OR ( PSYC103 ) OR ( PSYC111 )  
Corequisites: None

#### SPEC212 Low Incidence Disabilities Support (Min SH: 3, Max SH: 3)

Designed to examine the conceptual base, educational programming and curricular options for persons with moderate to severe disabilities. The relationship of sensory-motor development as it relates to classroom environments and adaptations will be examined in depth. Attention will be given to assessment, determination of goals, person-centered planning and the family-system approach.

Prerequisites: ( SPEC105 ) OR ( SPEC204 )  
Corequisites: None

#### SPEC215 High Incidence Disabilities Support (Min SH: 3, Max SH: 3)

Provides a comprehensive examination of individuals with mild disabilities (high incidence) and the accommodations/adaptations necessary for their success throughout the life span. Specifically addressed will be parameters of mild disabilities, theories of learning, learning styles, educational accommodations, instructional strategies, organizations that serve this population.

Prerequisites: ( SPEC105 ) OR ( SPEC204 )  
Corequisites: None

#### SPEC300 Communication Disorders and Assistive Technology (Min SH: 3, Max SH: 3)

Designed to provide an overview of communication needs for individuals with disabilities. Language development, assistive technology and alternative communication systems will be explored. The scope of this course is intended to enable students to become familiar with assessment and intervention strategies for students with communication disorders.

Prerequisites: SPEC105 SPEC204  
Corequisites: None

#### SPEC309 Instructional Strategies for Students with Disabilities in Inclusive Settings (Min SH: 3, Max SH: 3)

Addresses the needs of pre-service teachers who share the responsibility of providing effective instruction to students with disabilities. Emphasis will be given to utilizing evidence based instructional practices for students with varying disabilities, creating a positive inclusive learning environment, collaborating and communicating with other school personnel and parents, and implementing positive behavioral interventions.

Prerequisites: SPEC204 SPEC105  
Corequisites: None

SPEC310 Manual Communication and Signing (Min SH: 3, Max SH: 3)

Designed as an introduction to American Sign Language (ASL). Basic ASL vocabulary is taught with attention to sentence structure, expressive skills, receptive skills, and fingerspelling. This course will provide practical experiences in dialogue with individuals using manual communication.

Prerequisites: ( SPEC105 ) OR ( SPEC204 )

Corequisites: None

SPEC330 Physical Education and Recreation for the Disabled (Min SH: 3, Max SH: 3)

Designed to explore an inclusive physical activity approach for persons with disabilities. Students will gain an understanding of various activities and specific modifications that will enhance the participation in inclusionary recreational activities. Emphasis will be placed on designing, implementing, and evaluating recreational opportunities that involve person-centered, capacity-building, choice and ecological inventories. All content evolves around the goal of including persons with disabilities in regular physical education, recreation, and leisure settings.

Prerequisites: None

Corequisites: None

SPEC335 Comparative Special Education (Min SH: 3, Max SH: 3)

Provides students with an observation and field experience by traveling to another country to tour, observe, and participate in area schools. A comparison will be made between U.S. special education laws and regulations, and the implementation of special education services in pre-k through secondary education classrooms in another country. These field experiences will provide students with the opportunity to compare the delivery of special education services.

Prerequisites: ( SPEC105 ) OR ( SPEC204 )

Corequisites: None

SPEC338 Positive Behavior Supports (Min SH: 3, Max SH: 3)

Designed to examine the etiology, assessment practices, and intervention strategies espoused by various theoretical perspectives for individuals with mild, moderate, and severe emotional behavior disorders. Emphasis will be on the use of functional behavior assessment and various positive behavior support strategies that can be used in classrooms or related educational facilities.

Prerequisites: SPEC105 SPEC204

Corequisites: None

SPEC345 Literacy Instruction for Students with Disabilities (Min SH: 3, Max SH: 3)

Designed to address the needs of pre-service teachers who have the responsibility for literacy development and instruction for students with disabilities. Emphasis will be given to literacy components, evidence-based practices, and varying challenges students with disabilities have in learning to read and write.

Prerequisites: SPEC204 SPEC105

Corequisites: None

SPEC400 Professional Skills and Technology (Min SH: 3, Max SH: 3)

Designed to provide students with necessary skills to effectively and efficiently perform job duties in the field of disability and community services. Significant emphasis will be on students investigating job responsibilities within disability service agencies. The laws related to serving individuals with disabilities and their families will be examined. The course will focus on the use of

desktop and social media software. Using these technologies, the students will create an electronic portfolio to exhibit his/her skills and knowledge to prospective internship agencies/employers.

Prerequisites: None

Corequisites: None

SPEC421 Curriculum Methods for Secondary through Transition: Special Education Professional Semester (Min SH: 3, Max SH: 3)

This course offers a broad spectrum of instructional methodologies that are appropriate across various academic and life skills curriculum. Emphasis will be placed on preparing adolescents for transition from school to society. Students will write and implement lesson plans, teach units of study, develop and apply adaptations and accommodations, and demonstrate instructional practices that can be used in various content areas.

Prerequisites: None

Corequisites: None

SPEC423 Curriculum Methods for Preschool through Elementary: Special Education Professional Semester (Min SH: 3, Max SH: 3)

This course offers a broad spectrum of instructional methodologies that are appropriate across various academic and life skill curriculums for preschool and elementary exceptional learners. Students will write and implement lesson plans, teach units of study, develop and apply adaptations and accommodations, and demonstrate instructional practices that can be used in various content areas.

Prerequisites: None

Corequisites: None

SPEC430 Assessing Educational Needs and Planning for Instruction (Min SH: 3, Max SH: 3)

Designed to provide an introduction to educational assessment and instructional planning. This course emphasizes the administration and interpretation of formal and informal individual assessments used in identifying needs of individuals with exceptionalities. Students will gain experience in administering assessment instruments and writing evaluation reports and individualized educational programs.

Prerequisites: None

Corequisites: None

SPEC432 Assessing Needs and Transition Planning for Individuals with Disabilities (Min SH: 3, Max SH: 3)

Designed to provide students with the knowledge and skills to effectively assess the developmental, functional, social, and vocational needs of individuals with disabilities. Students will gain an understanding of the legal provisions for current assessment practices and transition planning. Significant emphasis will be placed on selecting and administering appropriate assessment instruments, as well as interpreting results to create individualized goals and design appropriate service, transition, behavior, and action plans.

Prerequisites: None

Corequisites: None

SPEC440 Strategies for Teaching Students with Low Incidence Disabilities (Min SH: 3, Max SH: 3)

Designed to offer a broad spectrum of instructional methodologies appropriate across all levels of academic and life skill individualized independence curriculums for individuals with exceptional learning needs (ELN). Students will develop and implement lesson plans across content areas, strategies that promote positive behavior and social skills, and appropriate adaptations and accommodations.

Prerequisites: None

Corequisites: None

SPEC441 Strategies for Teaching Students with High Incidence Disabilities (Min SH: 3, Max SH: 3)

Designed to offer a broad spectrum of instructional methodologies appropriate across all levels of academic individualized general curricula for individuals with exceptional learning needs (ELN). Students will develop and implement: lesson plans across content areas, strategies that promote positive behavior and social skills, and appropriate adaptations and accommodations.

Prerequisites: None

Corequisites: None

SPEC450 Community Service Field Experience (Min SH: 12, Max SH: 12)

Designed as an internship where students are placed in a community organization/agency that serves individuals with disabilities and will be under the supervision of an experienced professional who is employed by the agency and a special education faculty member. Students are expected to develop an in-depth understanding of the agency activities, programs, and services, and will assume increasing levels of responsibility as beginning level professionals.

Prerequisites: ( SPEC300 AND SPEC338 ) OR ( SPEC300 AND SPEC338 )

Corequisites: None

SPEC493 Student Teaching and Professional Practicum-Special Education PreK-8 (Min SH: 6, Max SH: 6)

Designed to provide the capstone experience for pre-service teachers. Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day.

Prerequisites: None

Corequisites: None

SPEC494 Student Teaching and Professional Practicum - Special Education 7-12 (Min SH: 6, Max SH: 6)

Designed to provide the capstone experience for pre-service teachers. Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day.

Prerequisites: None

Corequisites: None

SPRT208 Introduction to Sport and Exercise Psychology (Min SH: 3, Max SH: 3)

An introductory overview of the psychological aspects of sport and exercise. This course provides a broad overview for understanding the behavior of individuals in sport and exercise settings. The course will integrate theories, principles and models with an emphasis on current research findings from sport and exercise settings. Content areas include personality and motivation factors, performance in groups, and the psychological effects of participation in sport and exercise.

Prerequisites: ( PSYC100 ) OR ( PSYC102 ) OR ( PSYC103 ) OR ( HONR180 )

Corequisites: None

SPRT223 Contemporary Issues and Problems in Sport Administration (Min SH: 3, Max SH: 3)

An overview of contemporary issues and problems in the field of sport administration. Students will research, discuss and debate current issues. Emphasis will be placed on connecting contemporary issues to the research and theories that underlie them, as well as to practical problem-solving strategies used by sport administrators.

Prerequisites: ( SPRT106 )

Corequisites: None

SPRT233 Sport Sales, Sponsorship, and Fundraising (Min SH: 3, Max SH: 3)

Designed to provide the student with knowledge pertaining to sport sales, sponsorship, and fundraising and their various aspects including: planned presentations, cold calling, the sales pitch, sales reports, sales letters, donor recruitment and development, community fundraising, and legal and ethical issues in sales and fundraising.

Prerequisites: ( SPRT106 )

Corequisites: None

#### SPRT305 Psychology of Coaching (Min SH: 3, Max SH: 3)

A comprehensive overview of the coaching profession and the coach-athlete relationship. Emphasis is placed on high school and intercollegiate level sport with consideration given to coaching youth and recreational sport programs. The course will be an application of current research findings and principles as they relate to coaching.

Prerequisites: None

Corequisites: None

#### SPRT317 Evaluation in Sport Administration (Min SH: 3, Max SH: 3)

Intended for future professionals in the field of Sport Administration, the course utilizes evaluation theories, models, methods and competencies. Emphasis is placed on the practical application of the evaluation process which will focus upon sport organization (public and private) programs and personnel within a sports organization.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

#### SPRT318 Advanced Theory and Application of Sport and Exercise Psychology (Min SH: 3, Max SH: 3)

An advanced study and application of the psychological aspects of sport and exercise. This course will integrate theories, principles and models of sport and exercise psychology with an emphasis on current research findings. Analysis and discussion of recent research will include the effects of psychological variables on performance in sport and exercise settings, as well as consideration of application in other domains.

Prerequisites: ( SPRT208 )

Corequisites: None

#### SPRT321 Management and Leadership of Sport (Min SH: 3, Max SH: 3)

An in-depth analysis of the sport industry with special emphasis given to the sport manager's roles and functions. Students will also conduct an in-depth analysis of planning, organizing, leading, and controlling as they apply to the sport managers and leaders in a sport organization.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

#### SPRT324 Sport Law and Ethics (Min SH: 3, Max SH: 3)

An examination of legal and ethical issues related to sport. This course will analyze relevant laws, policies, and court cases and the rights of those involved in sport including participants, spectators, and managers.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

#### SPRT332 Sport Marketing Management (Min SH: 3, Max SH: 3)

Designed to provide the student with knowledge pertaining to sports marketing and its various aspects including: pricing, promotion, sponsorships, endorsements, research, and licensing.

Prerequisites: None

Corequisites: None

SPRT335 Sport Administration and Community Relations (Min SH: 3, Max SH: 3)

An analysis of the various relationships between a sport administration department (public or private, high school or college) and the community in which it is located. Emphasis will be placed on the practical application of concepts, principles and practices between an educational institution and community associations and the role of the sport administrator.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

SPRT337 Governance of Sport (Min SH: 3, Max SH: 3)

An examination the structure and procedure of international, professional, amateur, collegiate, interscholastic, and other sport governing agencies. Students will develop a critical perspective of various sport governing agencies' authority and functions; requirements necessary to become a member of the sport league/organization; rules and regulations of each sport governing body; and current issues and future trends for each governing agency.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

SPRT340 Sport Media Communication Relations (Min SH: 3, Max SH: 3)

An examination of the interrelationship between sports and media in today's society. This course draws on theories of rhetoric and social criticism by examining media's role in telling the story of sports and, in telling that story, shaping and reinforcing cultural values. The course will utilize various broadcasts, print, and electronic media to examine how they are vital to the success of the sport organization.

Prerequisites: ( SPRT106 AND SPRT208 AND SPRT223 AND SPRT233 ) OR ( SPRT106 AND SPRT223 AND SPRT233 AND SPRT305 )

Corequisites: None

SPRT350 Sport Administration Field Participation (Min SH: 3, Max SH: 3)

Designed to explore career interests and develop professional skills. The course provides first-hand exposure to a sport administration setting. The student will be exposed to a variety of sport administration tasks which may includes sales, sponsorship, fundraising, event planning, marketing, community and public relations, and sports media and information. Experiences may take place in public and private organizations, schools and athletic settings.

Prerequisites: ( SPRT106 AND SPRT223 ) OR ( SPRT106 AND SPRT223 )

Corequisites: None

SPRT401 Sport Facility Management and Operation (Min SH: 3, Max SH: 3)

An examination of the role of sport that will allow students to learn the factors involved in obtaining, running, building, and managing sporting events. Students will also learn the guidelines for designing, constructing, maintaining, scheduling, and managing a sport facility.

Prerequisites: ( SPRT321 AND SPRT323 AND SPRT324 )

Corequisites: None

SPRT450 Sport Administration Professional Field Experience (Min SH: 12, Max SH: 12)

Provides students with the opportunity for on-the-job experience in a sport administration setting. Students will work under the supervision of a professional in the field and be exposed to a variety of sport administration tasks which may include sales, sponsorship, fundraising, event planning, marketing, community and public relations, and sports media and information. Experiences may take place in public or private organizations, schools and athletic settings.

Prerequisites: None

Corequisites: None

SPRT465 Organization and Administration of Sport and Athletic Programs (Min SH: 3, Max SH: 3)

An examination of the organizational philosophy and management requirements of sport and athletic programs. Students will be guided in the preparation of position papers, research reports, and presentations with the intent of providing realistic pre-professional experiences in the field. Amateur, professional, public, private and voluntary sport settings will be discussed.

Prerequisites: ( SPRT106 AND SPRT223 )

Corequisites: None

SPRT498 Sport Studies Seminar (Min SH: 3, Max SH: 3)

An analysis and/or comparison of topics related to sport studies within a framework provided by the instructor. Examples include, but are not limited to, contemporary issues in sport studies, a comparative global analysis of sport governance systems, sport studies issues related to economic, social and other factors, sport studies issues of special interest, and emerging technologies in the area of sport.

Prerequisites: None

Corequisites: None

SSED119 First Year Seminar for Social Studies Education Students (Min SH: 1, Max SH: 1)

An introduction to the underpinnings of social studies education at the secondary level for future social studies teachers. The course guides students through their Stage I Teacher Education requirements and early field experience tasks and addresses topics taught in generic freshman seminars. Must be taken by all Citizenship Education majors

Prerequisites: None

Corequisites: None

SSED210 Secondary Education 1: Social Studies (Min SH: 3, Max SH: 3)

An integrated approach to teacher preparation in social studies in a middle school and high school setting. Emphasis is on methods, materials, and strategies for teaching social studies subjects required for certification in Social Studies Education by the Pennsylvania Department of Education. The course is the first of a two part sequence of courses and is followed by Secondary Education II: Social Studies. Restricted to students majoring in Secondary Education Social Studies with the required current 3.0 overall and 3.0 in-major GPA requirements.

Prerequisites: PSYC103 AND SPEC204

Corequisites: None

SSED316 Secondary Education 2: Social Studies (Min SH: 4, Max SH: 4)

Course description is missing.

Prerequisites: None

Corequisites: None

SSED415 Student Teaching and Practicum Secondary 1: Social Studies (Min SH: 7, Max SH: 7)

Student teaching provides the capstone experience for preservice teachers. Two student teaching experiences are provided at two levels (appropriate to certification areas and grade level ranges). Supervised practice in classrooms with certified teachers introduces the student to all aspects of the teaching day. University professors supervise the student teachers and conduct weekly practicum sessions.

Prerequisites: None

Corequisites: None

SSED493 Student Teaching and Professional Practicum 1 (Min SH: 6, Max SH: 6)

A capstone experience, or of two student teaching experiences required for certification in secondary social studies. Students are placed in a social studies classroom and teach under the supervision of a certified social studies teacher for one half semester. University professors conduct regular practicum sessions, according to prescribed guidelines, and supervise the student teachers. To register, a student must meet Pennsylvania State Teacher Education Guidelines, have a 3.0 GPA overall and in major with no course less than a "C" in professional courses, and have successfully completed required early field experiences. A student must show scores or the admittance ticket (showing evidence that the test date is before the first day of student teaching) of the required Praxis II exam for their major before starting student teaching.

Prerequisites: None

Corequisites: None

#### SSSED494 Student Teaching and Professional Practicum 2 (Min SH: 6, Max SH: 6)

A capstone experience, or of two student teaching experiences required for certification in secondary social studies. Students are placed in a social studies classroom and teach under the supervision of a certified social studies teacher for one half semester. University professors conduct regular practicum sessions, according to prescribed guidelines, and supervise the student teachers. To register, a student must meet Pennsylvania State Teacher Education Guidelines, have a 3.0 GPA overall and in major with no course less than a "C" in professional courses, and have successfully completed required early field experiences. A student must show scores or the admittance ticket (showing evidence that the test date is before the first day of student teaching) of the required Praxis II exam for their major before starting student teaching.

Prerequisites: None

Corequisites: None

#### THEA110 Theatre: An Orientation (Min SH: 3, Max SH: 3)

Provides an introduction to theatre. It includes definitions and analysis of theatrical art and plays. Students will explore the relationship between theatre, the culture from which it came and the roles of theatre practitioners.

Prerequisites: None

Corequisites: None

#### VAPA119 First Year Student Seminar (Min SH: 1, Max SH: 1)

Designed to introduce students to the culture and mission of the university within the context of Visual and Performing Arts. Students are encouraged to explore the purpose of a college education and provided an opportunity to engage with an academic discipline. Students are introduced to learning strategies and study skills. Class discussion, students engage in active learning, common co-curricular activities, service and/or civic opportunities are incorporated to promote connection with fellow students, faculty, university and the community.

Prerequisites: None

Corequisites: None

#### WMST101 Introduction to Women's Studies (Min SH: 3, Max SH: 3)

An interdisciplinary introduction to the social construction of gender and the interconnections between gender, race, and power in the lives of women of all races, classes, sexual orientations, ages, and abilities. Using diverse cultural, transnational, and feminist perspectives, students will examine such issues as class, race, sexuality, identity, the media, and violence to seek strategies that will help create more egalitarian societies.

Prerequisites: None

Corequisites: None

#### WMST110 Introduction to LGBTQ Studies (Min SH: 3, Max SH: 3)

Introduces the topics of sexual orientation and gender identity, focusing primarily on the lives of people who are lesbian, gay, bisexual, transgender, queer, or questioning and how their lived experiences differ across the world.

Prerequisites: None

Corequisites: None



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