

Applied Computer Science - Mobile Application

Bachelor of Science (BS)

This degree map is based on the 2023-24 Academic Catalog and is subject to change. Students should meet with their academic advisor each semester and use Degree Works to monitor their individual progress toward degree completion. The time it takes to earn a degree will vary based on several factors including summer/winter enrollment, dual enrollment and number of courses successfully completed each semester. We recommend taking a minimum of 15 credits each fall and spring semester.

Sample 4-Year Plan

First Year			
Fall Courses	Credits	Spring Courses	Credits
CMSC 120 – OOP with Java (Tech GenEd)	3	CMSC 130 – Graphical User Interfaces in Java	4
STAT 141 – Introduction to Statistics (Quantitative General Education)	3	CMSC 150 – Principles of Database Design	3
COMM 101 – Public Speaking (Oral Communications General Education)	3	General Education Course (D, G, or F)	3
General Education Course – First Year Seminar	3	Writing General Education Course	3
General Education Course (D, G, or F)	3	Arts or Creative General Education	3
Semester Total	15	Semester Total	16

Second Year			
Fall Courses	Credits	Spring Courses	Credits
CMSC 125 – Fundamentals of Web Development	3	DGFR 275 – Introduction to Networks	3
CMSC 230 – Advanced Java	4	CMSC 245 – Game Programming	3
Natural World General Education Course	3	Natural World General Education Course	3
MATH 230 – Discrete Structures	3	CMSC 270 – Data Structures Using C++	4
History General Education Course	3	General Education Course (D, G, or F)	3
Semester Total	16	Semester Total	16

Third Year			
Fall Courses	Credits	Spring Courses	Credits
Literature General Education Course	3	DATS 410 – Machine Learning	3
CMSC 310 – Software Development Methods	3	Web Development Track Elective	3
CMSC 320 – Computer Ethics Social Impact & Security	3	MATH 160 – Calculus 1	4
CMSC 345 – Mobile Device Application Dev	3	Elective	3
Critical Reasoning General Education Course	3	Elective	3
Semester Total	15	Semester Total	16

Fourth Year			
Fall Courses	Credits	Spring Courses	Credits
CMSC 410 – Graphics Programming	3	CMSC 485 – Senior Capstone	3
Elective	3	Mobile Applications Track Elective	3
Mobile Application Track Elective	3	Elective	3
Elective	3	Elective	3
Elective	2		
Semester Total	14	Semester Total	12

Winter/Summer College - Optional

While not required, Winter and Summer sessions are offered each year and may help you stay on track or get ahead. You may take up to seven (7) credits during Winter College and up to 14 credits during Summer College.

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Curriculum Checklist

Core Courses (28 credits) – All Tracks

- ___ CMSC 120 – Objected-Oriented Programming with Java (4)
- ___ CMSC 125 – Fundamentals of Web Development (3)
- ___ CMSC 150 – Principles of Database Design (3)
- ___ DGFR 275 – Introduction to Networks (3)
- ___ CMSC 310 – Software Development Methods (3)
- ___ CMSC 320 – Computer Ethics, Social Impact & Security (3)
- ___ CMSC 485 – Senior Capstone (3)
- ___ STAT 141 – Introduction to statistics (3)
- ___ MATH 230 – Discrete Structures (3)

Mobile Application Track Requirements (34 credits)

- ___ CMSC 130 – Graphical User Interfaces in Java (4)
- ___ CMSC 230 – Advanced Java (4)
- ___ CMSC 245 – Game Programming (3)
- ___ CMSC 270 – Data Structures Using C++ (4)
- ___ CMSC 345 – Mobile Device Application Development (3)
- ___ CMSC 410 – Graphics Programming (3)
- ___ DATS 410 – Machine Learning (3)
- ___ MATH 170 - Calculus 1 (4)
- ___ Elective – Any CMSC or DATS course numbered 200 or above (3)
- ___ Elective – Any CMSC or DATS course numbers 200 or above (3)

General Education Requirements

(45 credits)

Note: Some requirements may be fulfilled by coursework in your major program including directed Gen Ed courses noted below

Note: Applied Computer Science students are required to take a class from each Ethical Reasoning (E) and Critical Reasoning (R) as part of their general education program.

- Foundations (15 credits)
 - STAT 141 Introduction to Statistics (3)
 - COMM 101 Public Speaking (3)
- Interconnections (9 credits)
- Citizenship & Responsibility (6 credits from at least two goals)
- Natural World & Technologies (9 credits)
 - CMSC 120 – OOP with Java (4)
- Creativity & Expression (6 credits)

Degree Requirements

All students must obtain a minimum of 120 credits, complete all General Education requirements, and all requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

A minimum GPA of 2.0 in the major and overall are required.

Campus Locations

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|-------------------|--|
| Bloomsburg | <input type="checkbox"/> Online; <input checked="" type="checkbox"/> In-person; <input type="checkbox"/> Blended |
| Lock Haven | <input type="checkbox"/> Online; <input checked="" type="checkbox"/> In-person; <input type="checkbox"/> Blended |
| Mansfield | <input type="checkbox"/> Online; <input type="checkbox"/> In-person; <input type="checkbox"/> Blended |
| Clearfield | <input type="checkbox"/> Online; <input type="checkbox"/> In-person; <input type="checkbox"/> Blended |