College of Health, Science and Technology
Department of Mathematics, Computer Science, and Digital Forensics

Bloomsburg LOCK HAVEN MANSFIELD
COMMONWEALTH UNIVERSITY

Applied Computer Science - Mobile Application

Bachelor of Science (BS)

This degree map is based on the current Academic Catalog and is subject to change. Please note that the degree map is designed to give you a sense of roughly how courses might be distributed over a 4-year degree. Your exact schedule will differ depending on a range of factors though we recommend taking a minimum of 15 credits each fall and spring semester. Regular consultation with your academic advisor is the best way to make sure that you are taking the courses you need in the right order to ensure efficient progress through your degree program.

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	Mobile Application 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.

Revised March 2025

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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)

*Denotes advanced coursework
Students must take a minimum of 42 credits of advanced coursework. Advanced coursework can be met in major courses, minor courses, free elective courses, and general education courses. Courses that meet this requirement are designated in Banner.

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, (a minimum of 42 credits must be advanced coursework), 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.