College of Health, Science, and Technology

Minor in Computer Science

Bloomsburg LOCK HAVEN MANSFIELD
COMMONWEALTH UNIVERSITY

This checklist is based on the current 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 completion of the minor.

Curriculum Checklist

REQUIRED COURSES

Pathway 1

____ CMSC 120: Object-Oriented Programming with Java **(4 credit hours)**
____ CMSC 130: Graphical User Interfaces in Java **(4 credit hours)**
Additional 11 credits from the computer science electives list below

OR

Pathway 2

____ CMSC 120: Object-Oriented Programming with Java **(4 credit hours)**
____ CMSC 115: Python Programming **(3 credit hours)**
____ CMSC 215: Advanced Python **(3 credit hours)***
Additional 9 credits from the computer science electives list below

ELECTIVES

Any courses that satisfy core or elective requirements for the Computer Science degree, for a total of 19 credits to complete the minor. EGGS 381 (Programming in GIS) may also be used to satisfy this requirement; note that CMSC 115 is a prerequisite.

____ CMSC 230: Advanced Java **(4 credit hours)***
____ CMSC 240: C Programming with Parallelism **(3 credit hours)***
____ CMSC 270: Data Structures using C++ **(4 credit hours)***
____ DGFR 275: Introduction to Networks **(3 credit hours)***
____ CMSC 320: Computer Ethics, Social Impact & Security **(3 credit hours)***
____ CMSC 330: Computer Organization **(3 credit hours)***
____ CMSC 350: Org. of Programming Languages **(3 credit hours)***
____ CMSC 245: Game Programming **(3 credit hours)***
____ CMSC 310: Software Developmental Methods **(3 credit hours)***
____ CMSC 345: Mobile Device Application Development **(3 credit hours)***
____ CMSC 355: Web App Development and Deployment **(3 credit hours)***
____ CMSC 360: Computer Networks **(3 credit hours)***
____ CMSC 375: Web Development Frameworks **(3 credit hours)***
____ CMSC 395: Web Services **(3 credit hours)***
____ CMSC 410: Graphics Programming **(3 credit hours)***
____ CMSC 445: Survey of Parallel Programming **(3 credit hours)***
____ CMSC 460: Internet Programming **(3 credit hours)***
____ CMSC 491: Special Topics **(3 credit hours)***
____ DATS 310: Databases for Big Data **(3 credit hours)***
____ DATS 320: Data Mining **(3 credit hours)***
____ DATS 410: Machine Learning **(3 credit hours)***
____ MATH 440: Theory of Computation **(3 credit hours)***
____ EGGS 381: Programming in GIS **(3 credit hours)***

*Advanced coursework.

Total Credits *Required for the Minor (at least 19* Credits, including at least 6 credits of advanced coursework)

Campus Locations

Bloomsburg ☐ Online; ☐ In-person; ☒ Blended

Lockhaven ☐ Online; ☐ In-person; ☒ Blended

Revised October 2024