

General Education

Foundations: (16-19 Credits)

First Year Seminar (3 Credits)

- ☐ FYS 1000 Navigating the First Year at PennWest

Quantitative Reasoning (4 Credits)

- ☐ MATH 2410 Calculus I

Written Communication (3-6 Credits)

- ☐ ENGL 1100 Intro. to Comp. & ENGL 1200 College Comp.
☐ Or ENGL 1200 English Composition

Oral Communication (3 Credits)

- ☐ COMM 1010 Public Speaking

Technological Literacy (3 Credits)

- ☐ CMSC 1200 Problem Solving and Programming Constructs

Discoveries: (25-30 Credits)

Arts and Humanities (6 Credits)

- ☐ _____
☐ _____

Social Sciences (6 Credits)

- ☐ _____
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Natural Sciences and Technology (7-9 Credits)

- ☐ MATH 2420 Calculus II
☐ ATMS 1100, BIOL 2810/3810, CHEM 1108, CHEM 1128, GEOL 1500, PHYS 2500/2510 or PHYS 2600/2610

Flex Discoveries (If DSP into ENGL 1200) (9 Credits)

- ☐ CMSC 1240 Computer Programming I
☐ MATH 1510 Discrete Structures
☐ _____

Essential Skills:

Intensive Writing

- ☐ CMSC 4900 Senior Project I: Software Engineering

Capstone

- ☐ CMSC 4920 Senior Project II

General Education Notes:

If Directed Self-Placement (DSP) includes ENGL 1100, the student will complete 6 courses in Foundations and 8 courses in Discoveries. If DSP into ENGL 1200, the student will complete 5 courses in Foundations and 9 courses in Discoveries. DSP into ENGL 1100 reduces the number of Gen Ed Flex courses to 6 vs. 9.

Program Requirements

Required Major Courses: (54 Credits)

- ☐ CMSC 2040 Object Oriented Programming
☐ CMSC 2100 Logic and Switching Theory of the Computer
☐ CMSC 3040 Data Structures
☐ CMSC 3100 Assembly
☐ CMSC 3140 Analysis of Algorithms
☐ CMSC 3180 Data Communication and Networking
☐ CMSC 3240 Computer Architecture
☐ CMSC 3320 Technical Computing Using Java
☐ CMSC 4000 Operating Systems
☐ CMSC 4080 Structures of Programming Languages
☐ CMSC 4140 Theory of Languages
☐ CMSC 4180 Language Translation
☐ CMSC 4900 Senior Project I: Software Engineering
☐ CMSC 4920 Senior Project II
☐ MATH 3210 Linear Algebra I
☐ STAT 2020 Elements of Statistics

Major Electives: (6 Credits)

Select at least one (1) from the following:

CMSC 3340 COBOL, CMSC 3360 Fortran, CMSC 3380 Python, CMSC 3700 2D Game Programming, CMSC 3720 3D Game Programming, or CMSC 4950 Internship.

- ☐ _____

Select at least one (1) course from the following:

CMSC 3200 Database Application Programming, CMSC 3780 Computer Graphics, CMSC 3990 Special Topics in Computer Science, CMSC 4120 Parallel Processing, or CMSC 4200 Artificial Intelligence

- ☐ _____

Free Electives: (24 Credits)

- ☐ _____
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Program Note:

Student must have a minimum grade of "C-" in the following courses:

ENGL 1200, MATH 2410, CMSC 1200, CMAC 1240, CMSC 2040, CMSC 2100, CMSC 3040, CMSC 3100, CMSC 3240, CMSC 4140, CMSC 4900, MATH 1510

Suggested Four Year Course Sequence

Year 1

Fall Semester

Arts and Humanities
CMSC 1200 Problem Solving and Programming Constructs
ENGL 1200 College Composition
FYS 1000 Navigating the First Year at PennWest
MATH 2410 Calculus I

Spring Semester

CMSC 1240 Computer Programming I
Free Elective
MATH 1510 Discrete Structures
MATH 2420 Calculus II
Social Sciences

Year 3

Fall Semester

CMSC 3140 Analysis of Algorithms
CMSC 3240 Computer Architecture
CMSC 3180 Data Communication and Networking
Free Elective
Free Elective

Spring Semester

CMSC 4000 Operating Systems
CMSC 4080 Structures of Programming Languages
CMSC 3320 Technical Computing Using Java
Free Elective
STAT 2020 Elements of Statistics

Year 2

Fall Semester

Arts and Humanities
CMSC 2040 Object Oriented Programming
CMSC 2100 Logic and Switching Theory
COMM 1010 Public Speaking
Social Sciences

Spring Semester

CMSC 3100 Assembly
CMSC 3040 Data Structures
Free Elective
MATH 3210 Linear Algebra I
Natural Science

Year 4

Fall Semester

CMSC 4140 Theory of Languages
CMSC 4900 Senior Project I: Software Engineering
Free Elective
Free Elective
Major Elective

Spring Semester

CMSC 4180 Language Translation
CMSC 4920 Senior Project II
Free Elective
Major Elective