

Freshman Year

Semester 1 Semester 2

SLS 1106
First Year Experience (3)

EGN 1007C(x)
Concepts and Methods for Eng. & CS (1)

ENC 1101
English Composition 1 (3,W)

ENC 2210
Technical Writing (3,W)

IDS 1380
Introduction to STEM (3)

COP 2271C
Introduction to Computation and Programming (3)

IB or C in MAC 1147 or higher, AP for MAC 2311

MAC 2311
Analytic Geometry and Calculus 1 (4)

MAC 2312
Analytic Geometry and Calculus 2 (4)

HS Physics PHY 2020 or Equivalent

Natural Science Gen. Ed (3)

PHY 2048
Physics 1 (3)

Natural Science Gen. Ed Lab (1)

PHY 2048L
Physics 1 Lab (1)

Sophomore Year

Semester 1 Semester 2

COP 2272C
Computer Programming 1 (3)

COP 3330C
Computer Programming 2 (3)

COP 3553C
Introduction to Unix (2)

COP 3710
Database 1 (3)

MAD 2104
Discrete Math (3)

CDA 2108
Intro. to Computer Syst. (3)

MAS 3114
Computational Linear Algebra (3)

EEL 3702C
Digital Logic Design (3)

PHY 2049
Physics 2 (3)

STA 2023
Statistics 1 (3)

PHY 2049L
Physics 2 Lab (1)

DIG 2520
Digital Media Production (3)

Junior Year

Semester 1 Semester 2

COP 4415
Data Structures (3)

CEN 4010
Software Engineering (3)

COP 4531
Algorithm Design & Analysis (3)

CAP 4630
Artificial Intelligence (3)

MAP 2302
Differential Equations (3)

EEL 4768C
Computer Architecture and Organization (3)

MAD 3401
Numerical Analysis (3)

Computer Science Concentration Elective (3)

CNT 3004
Intro to Computer Networks (3)

Computer Science Elective (3)

IDS 4941
Professional Exp. Internship (0)

Computer Science Concentration Elective (3)

Senior Year

Semester 1 Semester 2

COP 4934C
Senior Design 1 (3)

COP 4935C
Senior Design 2 (3)

Arts and Humanities Gen. Ed. (3)

COP 4020
Programming Languages (3)

COP 4610
Operating Systems Concepts (3)

IDS 2144
Legal, Ethical, and Mgmt Issues in Tech. (3)

Computer Science Concentration Elective (3)

Social Science Gen. Ed: History (3)

Computer Science Concentration Elective (3)

Computer Science Concentration Elective (3)

Legend:

Course Number
Course Name
(credit, requirement met)

Program/
Concentration
Elective

General
Education or
Technical
Elective

Permission from
APC, Provost, or
Designee
Needed

- Prerequisite
- Co-requisite
- Pre-Requisite OR Co-Requisite



BS in Computer Science

Program/Concentration Electives & General Education

2017-2018 Catalog

Program/Concentration Electives

Advanced Topics

Choose 12 credits from Cyber Gaming Concentration, Information Assurance & Cyber Security, or Computer Science elective courses.

Cyber Gaming

- CAP 4034 Computer Animation (3, COP 4415, COP 4531)
- CAP 4052 Game Design and Development 1 (3, COP 4730)
- CAP 4056 Game Design and Development 2 (3, COP 4052)
- CAP 4730 Computer Graphics (3, COP 4415, COP 4531)

Information Assurance & Cyber - Security

- CIS 4203 Digital Forensics (3, CNT 3004C / CIS 4367)
- CIS 4204 Ethical Hacking (3, CNT 3004 / CIS 4367)
- CIS 4362 Applied Cryptography (3, STA 2023 OR STA 3032, COP 3530 OR COP 4415 and COP 4531)
- CIS 4367 Computer Security (3, CIS 4362, COP 4610)

Computer Science (Program Electives)

- COP 2034C Intro. to Programming Using Python (3, MAC 2311)
- COP 3834C Web Application Development (3, COP 2271C)
- CEN 4088 Software Security Testing (3, CEN 4010)
- CAP 4122 Virtual Reality (3, EEL 4768C, CAP 4730, CEN 4721)
- CEN 4213 Embedded Systems Programming (3, COP 4415, EEL 4768C)
- CIS 4369 Web Application Security (3, CIS 4362)
- CNT 4409 Network Security (3, CIS 4362, CNT 3004C)
- CAP 4410 Computer Vision (3, MAS 3114 OR MAS 3105, COP 3330C, COP 4415 and COP 4531 OR COP 3530)
- COP 4520 Intro. to Parallel and Distributed Computing (3, EEL 4768C OR CDA 3100, COP 4415, COP 4531)
- CNT 4526 Wireless and Mobile Networking (3, CNT 3004C, COP 4531)
- CAP 4612 Machine Learning (3, STA 2023, MAS 3114 OR MAS 3105, COP 3530 OR COP 4415 and COP 4531)
- COP 4620 Compilers and Interpreters (3, COP 4415)
- COP 4656 Mobile Device Applications (3, COP 2272C)

Program/Concentration Electives

Computer Science (Program Electives)

- EEL 4664C Autonomous Robotic Syst. (3, EEL 3202C OR CDA 2108)
- CEN 4721 Human Computer Interaction (3, COP 4415 and COP 4531)
- CAP 4830 Modeling and Simulation (3, STA 2023, COP 3330C)
- COP 4930 Special Topics (3, CEN 4010)

General Education

Arts & Humanities

Choose one (1) from the following:

- ARH 2000 Art Appreciation (3-W)
- PHI 2010 Introduction to Philosophy (3-W)

Social Sciences

Required one (1) from the following:

- AMH 2010 American History to 1877 (3-W)
- AMH 2020 American History Since 1877 (3-W)
- AMH 2930 Special Topics in American History (3-W)

Required one (1) from the following:

- ECO 2013 Principles of Macroeconomics (3-W)
- ECO 2023 Principles of Microeconomics (3-W)
- PSY 2012 General Psychology (3-W)

Natural Science Elective

Select four (4) credits from the following:

- BSC 1010 Biology 1 (3 / BSC 1010L)
- BSC 1010 Biology 1 Lab (1 / BSC 1010)
- CHM 2045 Chemistry 1 (3, MAC 1147 OR Equivalent, or passing grade in CHM 1025)
- CHM 2045L Chemistry 1 Lab (1/ CHM 2045)

Total Program Credits: 120

[Click Here to print program planner](#)

[Click Here to view program plan of study](#)

[Click Here to access entire Florida Poly Catalog](#)

Legend: Course name (credits-requirement met, pre-requisites/co-requisites)

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