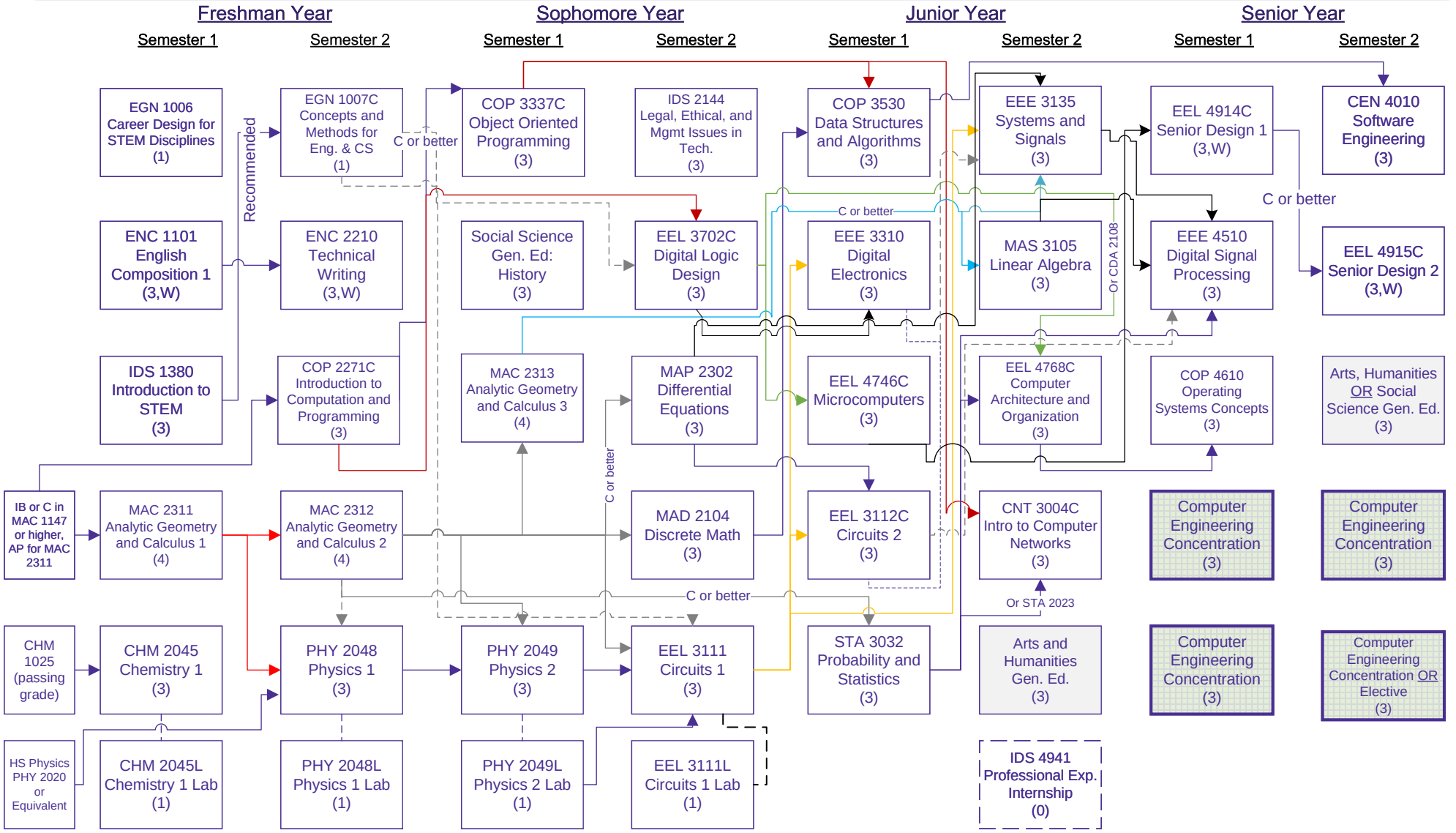
BS in Computer Engineering

2021-2022 Catalog



Legend:

- Course Number Course Name (credit, requirement met)
- Program/ Concentration Elective
- General Education or Technical Elective
- Permission from Dept. Chair, Provost, or Designee Needed
- Prerequisite
- Co-requisite
- Pre-Requisite OR Co-Requisite

FLORIDAPOLY

Last Modified 03/2022

BS in Computer Engineering
Program/Concentration Electives and General Education

Program/Concentration Electives

Advanced Topics
- Students choose nine (9) credits from courses in the CE concentrations and three (3) credits from Computer Engineering electives.

Digital System Design
- CDA 4210 - VLSI Design (3, EEL 4768C) co or pre-req EEE 3310)
- EEE 3351 - Electronic Devices (3, EEL 3111, EEL 3111L, CHM 2045, CHM 2045L)
- EEL 4794 - Power Aware Design (3, EEL 3111, EEL 3111L, CDA 4210)
- Computer Engineering Concentration or Elective Course Credits: 3

Embedded System Design
- CDA 3631C - Embedded Operating Systems (3, CDA 3100 or EEL 4768C)
- EEL 4724 - Hardware Design with FPGAs and Reconfigurable Computing (3, EEL 3702C)
- EEL 4685C - Embedded Control (3, EEL 3135, EEL 4768C)
- Computer Engineering Concentration or Elective Course Credits: 3

Machine Intelligence
- COP 3330C - Computer Programming 2 (3, COP 3337C)
- CAP 4410 - Computer Vision (3, (MAS 3114 or MAS 3105), COP 3809C, ((COP 4415 & COP 4531) or COP 3530)
- **OR**
- EEL 4759 - Digital Image Processing (3, EEL 3135)
- CAP 4612 - Machine Learning (3, (STA 2023 or STA 3032), (MAS 3114 or MAS 3105), (COP 3530 or (COP 4415 & COP 4531))
- CE concentration course or CE elective Credits: 3

Autonomous Robotic Systems
- EEL 4664C - Kinematics and Control of Robotic Systems (3, COP 2271C, EEL 3111, EEL 3111L, MAP 2302, MAC 2313, STA 3032)
- EEL 4660C - Autonomous Robotic Systems (3, COP 2271C, COP 3337C, (EEL 3702C or CDA 2108)
- EEL 4759 - Digital Image Processing (3, EEL 3135)
- Computer Engineering Concentration or Elective Course Credits: 3

Autonomous and Electric Vehicles
- EEL 4220 - Electronic Motor Control (3, EEL 3112C or EML 3811)
- EEL 4312 - Electric and Hybrid Vehicles (3, EEL 3112C or EML 3811)
- EEL 4332 - Intro to Autonomous Vehicles (3, MAP 2302, COP 2271C, (MAS 3105 or MAS 3114)
- EEL 4333 - Autonomous Vehicle Design and Applications (3, EEL 4332)

Computer Engineering Electives
- ENT 2112 - Entrepreneurial Opportunity Analysis (3)
- MAD 3401 - Numerical Analysis (3, MAS 3105 or MAS 3114)
- or any 3000 or 4000 level course with the following prefixes: CAP, CEN, CIS, CNT, COP (except COP 4415 and COP 4531), EEL, EEE

Arts, Humanities, and Social Sciences

Arts & Humanities

Required one (1) from the following:
- ARH 2000 Art Appreciation (3-W)
- HUM 2020 Introduction to Humanities (3-W, ENC 1101)
- LIT 2000 Introduction to Literature (3-W, ENC 1101)
- PHI 2010 Introduction to Philosophy (3-W)

Optional one of the following or more from Arts & Humanities required or Social Sciences:
- IDS 2144 - Legal, Ethical, and Management Issues in Technology (3-W)
- HUM 2022 Explorations in the Humanities (3-W)

Social Sciences

Required one (1) from the following:
- AMH 2020 American History Since 1877 (3-W)
- PSY 2012 General Psychology (3-W)
- ECO 2013 Principles of Macroeconomics (3-W)

Required one (1) from the following:
- AMH 2010 American History to 1877 (3-W)
- ECO 2023 Principles of Microeconomics (3-W)
- AMH 2930 Special Topics (1 to 3-W)

Total Program Credits: 120

FLORIDAPOLY

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