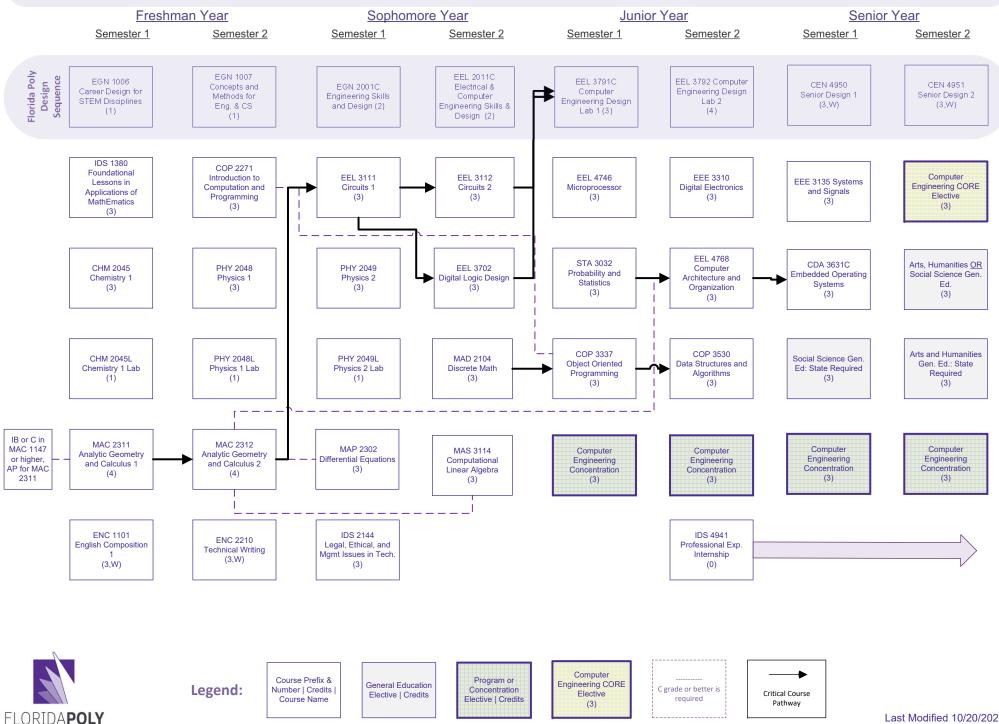
BS in Computer Engineering

2023-2024 Catalog



BS in Computer Engineering Program/Concentration Electives and General Education

Program/Concentration Electives

Concentrations

Advanced Topics

• Complete twelve (12) credits from any computer engineering concentration, or computer engineering core elective courses.

Automotive

- EEL 4220 Electronic Motor Control Credits: 3
- EEL 4312 Electric and Hybrid Vehicles Credits: 3
- EEL 4332 Intro to Autonomous Vehicles Credits: 3
- EEL 4665 Autonomous Perception Systems Credits: 3

Energy

- EEL 4283 Renewable Energy Systems Credits: 3
- EEL 4276 Smart-Grid and Cyber Physical Security Credits: 3
- EEL 3287 Renewable Energy and Sustainability Credits: 3
- ENV 3049 Life Cycle Assessment and Modeling Credits: 3

Machine Intelligence

- EEL 4759 Digital Image Processing Credits: 3 Does not double count as a core elective.
- EEL 4810 Neural Networks and Applications Credits: 3
- EEL 4736 HW/SW Co-Design Credits: 3
- CAI 4104 Machine Learning Hardware Credits: 3

Robotics

Select 12 credits (4 courses) from the following electives:

- EEL 4665 Autonomous Perception Systems Credits: 3
- EEL 4220 Electronic Motor Control Credits: 3
- EEL 4664 Kinematics and Control of Robotic Systems Credits: 3
- EEL 4660 Autonomous Robotic Systems Credits: 3
- EEL 4652 Control Theory Credits: 3
- EEL 4612 Control System Design Credits: 3

Computer Engineering CORE Electives

Select one (1) course. Additional Courses in list count as noted in concentrations or Advanced Topics.

Computer Engineering Core Electives

CDA 4210 - VLSI Design Credits: 3 EEL 4759 - Digital Image Processing Credits: 3 EEE 4510 - Digital Signal Processing Credits: 3

Arts, Humanities, and Social Sciences

Arts and Humanities

Required, one from the following:

- ARH 2000 Art Appreciation Credits: 3
- HUM 2020 Introduction to the Humanities Credits: 3
- LIT 2000 Introduction to Literature Credits: 3
- MUL 2010 Music Appreciation Credits: 3
- PHI 2010 Introduction to Philosophy Credits: 3

Optional, one from the following or one more from Arts and Humanities require or Social Sciences:

- IDS 2144 Legal, Ethical, and Management Issues in Technology Credits: 3
- HUM 2022 Explorations in the Humanities Credits: 3

Social Sciences

Required, one from the following:

- AMH 2020 American History Since 1877 Credits: 3
- POS 2041 American Government Credits: 3
- PSY 2012 General Psychology Credits: 3
- ECO 2013 Principles of Macroeconomics Credits: 3

Optional, one from the following or one more from Social Science required or Arts and Humanities:

- AMH 2010 American History to 1877 Credits: 3
- ECO 2023 Principles of Microeconomics Credits: 3
- HIS 2930 Special Topics Credits: 3

