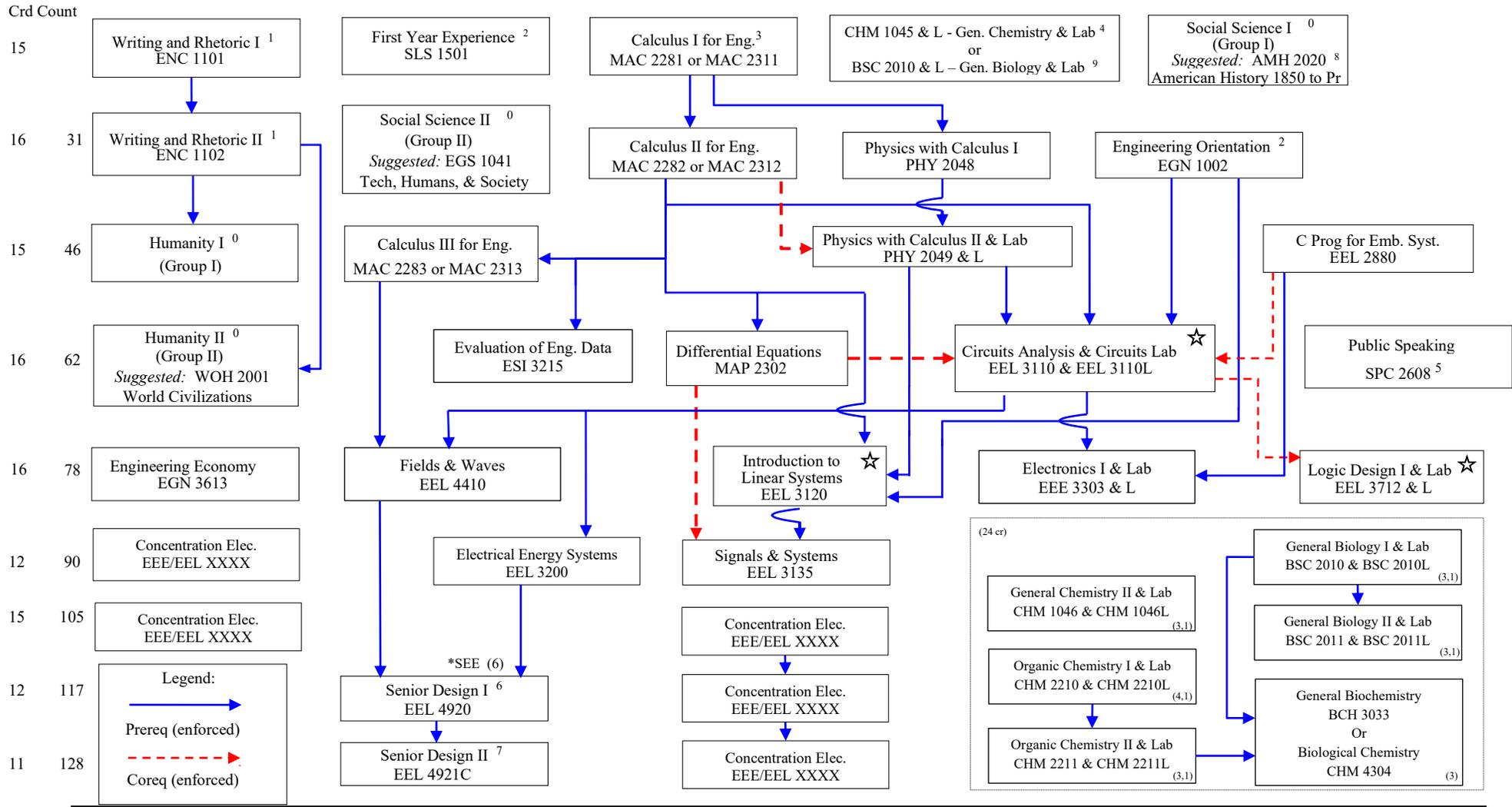


Electrical Engineering Pre-Med Track Flowchart



Other Requirements (Must be completed for graduation):

GRW1: _____ GRW2: _____ Foreign Language: _____ 9 Summer Credit Hours: _____ UCC: _____ Total Credits: _____ / 128

GL-F: _____ GL-D: _____ Concentration I: ____/9crd Pre-Med Concentration: ____/24crd Concentration Total: ____/39 crd CL: _____

⁰ List of alternative courses can be found at: <https://acs.fiu.edu/offices-services/advising/university-core-curriculum-updated-6-17-20.pdf>

¹ Students w/> 30 transfer credits may be able to substitute ENC 1101 & ENC 1102 with: 1) ENC 2304 and 2) then one of the following: ENC 3213, ENC 3249, ENC 3311 or ENC 3314

² Students w/> 30 transfer credits may be able to substitute SLS 1501 & EGN 1002 with an advisor approved 3-credit concentration elective

³ Prerequisite: MAC 1105 + MAC 1147 or (MAC 1114 + MAC 1140)

⁴ Prerequisite: Second year high school algebra or MAC 1105 College Algebra

⁵ Students who transfer in a UCC Art (that is not Public Speaking) can replace one 3-credit concentration elective with SPC 2608 – Public Speaking.

⁶ Students are required to complete at least 100 credits towards engineering degree, including ECE core courses and Computer Engineering Program Core before EEL 4920 registration.

⁷ EEL 4920 & EEL 4921C shall be taken during the student's last two semesters prior to graduation. EEL 4921C shall be registered the semester right after taking EEL 4920, including Summer terms.

⁸ Satisfies CIVICS LEARNING (CL) requirement. ⁹ Students entering FIU in Fall 2020 or later.

*Starting in Fall 2010 Freshman and Transfer Students will have to complete 6 credit hours (2 classes) that will satisfy the **Global Learning Requirement**. ☆ Indicates critical courses for progress.

NOTE: Any student found to be taking any course without its prerequisite or co-requisite will be dropped from the course without a refund.

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Concentrations

<p>Power / Energy</p> <ul style="list-style-type: none"> EEL 4213 Power Systems I EEL 4213L Energy Conversion Laboratory EEL 4214 Power II EEL 4215 Power III EEL 4241 Power Electronics EEL 4005 Measurements and Instrumentation in EE EEL 4495 Intro. to Applied Electromagnetics <p>Autonomous Systems, Control & Robotics</p> <ul style="list-style-type: none"> EEL 3657 Control Systems I EEL 3664 Intro to Autonomous Systems EEL 4611 Control Systems II EEL 4611L Systems Lab EEL 4658 Industrial Control Systems EEL 4664 Sensors, Perception & Robotic Manipulation EGN 3311 Statics EGN 3321 Dynamics <p>Integrated Nano-Technology</p> <ul style="list-style-type: none"> EEE 3303C Electronics I & Lab (<i>CpE Only</i>) EEE 3396 Intro to Solid State Devices EEE 4304C Electronics II & Lab EEE 4393C Wearable Electronics EEE 4421C Intro to Nanofabrication EEL 4005 Measurements and Instrumentation in EE EEE 4314 & 4314L Integrated Circuits and Lab <p>Communications</p> <ul style="list-style-type: none"> EEL 3514 Communication Systems EEL 3514L Communication Systems Lab EEL 3580 Intro to Wireless Comm. Systems EEL 4413 Wave Prop. For Wireless Communication EEL 4421 Intro to RF Circuit Design EEL 4461C Antennas EEE 4510 Intro to DSP EEL 4515 Advanced Comm. Systems EEE 4550 Intro to Radar Systems EEL 4583 Basics of RF Systems <p>Bio-Engineering</p> <ul style="list-style-type: none"> EEE 3303C Electronics I & Lab (<i>CpE Only</i>) EEL 4140 Filter Design EEE 4393C Wearable Electronics EEE 4421C Intro to Nanofabrication EEE 4510 Intro to Digital Signal Processing BME 4503C Medical Instrumentation: App & Design <p>Computer Architecture & Microprocessor Design</p> <ul style="list-style-type: none"> EEE 4343 Intro to Digital Electronics EEL 4709C Computer Design (<i>EE Only</i>) EEL 4746 Microcomputers I EEL 4746L Microcomputers I Lab EEL 4747 Microcomputers II (RISC) EEL 4747L Microcomputers II (RISC) Lab <p>Entrepreneurship</p> <ul style="list-style-type: none"> EEL 4933 Engineering Entrepreneurship EEL 4062 Engineering Business Plan Development EEL 4063 Introduction to Business Decisions EEL 4090C Technical Sales for Engineers <p>Other</p> <ul style="list-style-type: none"> EEL 4015 Electrical Design in Buildings EEL 4476 Radiation Detection and Meas. in ECE 	<p>Embedded System Software</p> <ul style="list-style-type: none"> EEL 3370 C++ Prog. For Embedded Systems (<i>EE Only</i>) EEL 4730 Program. Embedded Systems (<i>EE Only</i>) EEL 4734 Embedded Operating Systems EEL 4740 Embedded Computing (<i>EE Only</i>) EEL 4831 Embedded GUI Programming <p>Networking & Security</p> <ul style="list-style-type: none"> TCN 4081 Telecommunication Network Security TCN 4211 Telecommunication Networks TCN 4212 Telecomm. Network Analysis & Des. EEE 4717 Intro to Security of IoT <p>Cybersecurity</p> <ul style="list-style-type: none"> EEL 4802 Intro to Digital Forensics Engineering EEL 4804 Intro Malware Reverse Engineering EEL 4806 Ethical Hacking & Countermeasures <p>Cyber Defense</p> <ul style="list-style-type: none"> TCN 4211 Telecommunication Networks TCN 4081 Telecommunication Network Security EEL 4802 Intro to Digital Forensics Engineering EEL 4804 Intro Malware Reverse Engineering EEL 4806 Ethical Hacking & Countermeasures EEL 4730 Program. Embedded Systems (<i>EE Only</i>) EEL 4734 Embedded Operating Systems <p>Digital Forensics</p> <ul style="list-style-type: none"> EEL 4802 Intro to Digital Forensics Engineering EEL 4804 Intro Malware Reverse Engineering EEL 4806 Ethical Hacking & Countermeasures EEE 4750 Intro to Image & Video Forensics EEE 4752 Intro to Network Forensics & Incident Resp. EEE 4754 Intro to Mobile Forensics <p>Artificial Intelligence and Big Data</p> <ul style="list-style-type: none"> CNT 3143 IoT & Analytics w/ Cloud Services CNT 4145 Sensor IoT Analytics CNT 4147 IoT & Sensor Big Data Analytics CNT 4149 Sensor & IoT Data Ana. w/ Deep Learning CNT 4151 IoT & Sensor Data Visualization CNT 4153 IoT Applied Machine Learning CNT 4155 IoT & Sensor Programming w/ Python <p>Internet of Things</p> <ul style="list-style-type: none"> COP 4610 Operating Systems Principles COP 4655 Mobile Application Development EEE 4510 Intro to Digital Signal Processing EEE 4717 Intro to Security of IoT EEL 4740 Embedded Computing (<i>EE Only</i>) TCN 4211 Telecommunication Networks <p>Data System Software</p> <ul style="list-style-type: none"> COT 3100 Discrete Structures (<i>EE Only</i>) <ul style="list-style-type: none"> (Alternative: MAD 2104 – Discrete Math (<i>EE Only</i>)) COP 2210 Programming I COP 3337 Programming II COP 3530 Data Structures COP 4338 Systems Programming COP 4610 Operating Systems Principles COP 4655 Mobile Application Development
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Concentrations:

- Student must satisfy at least two (2) concentrations via 9 credits (or ~3 courses) minimum each.
- Electrical Engineering student must complete minimum of 39 concentration credits not found in ECE Core and Electrical Engineering Program Core.
- Computer Engineering student must complete minimum of 34 concentration credits not found in ECE Core and Computer Engineering Program Core

NOTE: Any student found to be taking any course without its prerequisite or co-requisite will be dropped from the course without a refund. Fall 2023 Rev 04/30/2023