

CURRICULUM LEADING TO THE BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

NTY7/10/2018

Catalog Year: 2018

Hours required 128

Courses with an asterisk (*) require a grade of C or higher. Students must have a grade of C or higher in any EEL/EEE-prefixed breadth course in order to take any course for which it is the prerequisite. Any 3000/4000 level EEL/EEE-prefixed course not taken to satisfy the breadth or depth requirement can be applied as EE Technical Electives excluding EEL 3003, which does not apply towards degree requirements.

General Education and Critical

Tracking Courses: 45 Credits

ENC3246 Profes Communications for Engrs. (3)

Humanities (GE-H) (3)

IUF1000 What is the Good Life (3)

Social Science (GE-S) (6)

GE-C (3)

To lessen the number of credits required, students are encouraged to take courses which satisfy both International Studies & Diversity and Humanities/ Social Sciences.

MAC2311 Analytic Geometry & Calc 1 (4)

MAC2312 Analytic Geometry & Calc 2 (4)

MAC2313 Analytic Geometry & Calc 3 (4)

MAP2302 Elem Differential Equations (3)

CHM2045 General Chemistry 1 (3)

or CHM 2095 Chemistry for Engineers 1 (3)

CHM 2045L General Chemistry Lab (1)

PHY2048 Physics with Calculus 1 (3)

PHY2048L Physics Lab (1)

PHY2049 Physics with Calculus 2 (3)

PHY2049L Physics Lab (1)

Technical Courses: 18 Credits

MAS3114 Computational Linear Algebra (3)

STA3032 Engineering Statistics (3)

Computer Programming Elective (3) Choose 1

COP2271 & COP 2271L Computer Program for Engineers & Lab or

COP3275 Program Using C or

EEL3834 Program for ECE

Interdisciplinary Electives (Take 9 credits)

CHM2046, CHM2210-CHM2211 & lab. Any 3000/4000 level BSC, CHM, PCB, or ZOO courses.

Any 3000/4000-level course in the College of Engineering (non-ECE) courses or any 3000/4000-level course from the Math Dept with an MAA, MAD, MAP, MAS prefix or any 3000/4000 level courses from the Physics Dept,

Electrical Engineering Core: 30 Credits*

EEL3000 Introduction to ECE* (2)

EEL3111C Circuits 1* (4)

EEL3008 Physics of Electrical Eng.* (3)

EEL3112 Circuits 2* (3)

EEL3135 Signals and Systems* (4)

EEL3701C Digital Logic & Computer Sys* (4)

EEL3744C Microprocessor Applications* (4)

EEL3923C Design 1* or IPPD 1 (3)

EEL4924C Design 2* or IPPD 2 (3)

EE Breadth Courses (12) Choose 3 courses*

EEE3308C Electronic Circuits 1 (4)

EEE3396C Solid State Devices (4)

EEE4260C Bioelectrical Systems (4)

EEL3211C Basic Electric Energy (4)

EEL3472C Electromagnetic Fields & Apps 1(4)

EEL4511C Real-Time DSP (4)

EEL4514C Communications (4)

EEL4657C Linear Controls (4)

EEL4712C Digital Design (4)

EE Depth Courses (6)

Select a course from 2 different EE Breadth Areas (see list)

EE Technical Electives (17)

Any 3000 level or higher course in ECE with the exception of EEL 3003 which does not apply towards BSEE degree requirements.

Electrical Engineering Advisor:

Nicole Young: ntyoung@ufl.edu

230 Larsen Hall

ECE Student Services Offices

<http://ufece.blogspot.com/>

<https://www.ece.ufl.edu/content/electrical-engineering-undergraduate-academics>

www.ece.ufl.edu

IPPD: <http://www.ippd.ufl.edu/>

^Taking additional EE breadth and depth courses will count towards EE Technical Elective requirements.

^^ BME4931 course code are special topics for the BME major. Please check with EE advisor for BME enrollment

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Approved EE Depths Courses Select a course from 2 different EE Breadth Areas

EEE3308C Depth Courses: EEE4306, EEE4310, EEE4373

EEE3396C Depth Courses: EEE4329, EEE4331, EEE4420

EEE4260C Depth Courses: BME 4503/Lab, BME 4531, BME4931** and BME4931**

EEL3211C Depth Courses: EEL4251

EEL3472C Depth Courses: EEL4458, EEL4461, EEL4473

EEL4511C Depth Courses: EEL4750

EEL4514C Depth Courses: EEL4516 and EEL4598

EEL4657C Depth Courses: EEL4610

EEL4712C Depth Courses: EEL4713C, EEL4720, EEL4736

Please check schedule of courses for semester availability

Electrical Engineering Technical Electives: Must take 17 credits

BME 4160 Magnetic Biomaterials

BME4931 Neural Engineering**

BME4931 Neural Systems Model**

BME 5704 Adv. Comp. Meth. for BME

BME 6938: Neural Instrumentation

EEE4210 Intro to Biophotonics

EEE4222/EEL5225 Resonant MEMS

EEE4306/5320 Elec. Circuits 2

EEE4310/5322 Dig. Integrated Circ.

EEE4329/5400 Fut. of Micro. Tech.

EEE4331/5406 Microelec Fab Tech

EEE4373/5934 RF Electronics

EEE4404/5408 Mixed IC Test

EEE4420/5426-Intro to Nanodev.

EEE4701 Automated HW/SW Ver.

EEE4714 Intro to HW Security

EEE4720/EEL5934- Acoustics

EEE5364 Fund. Data Convert

EEE6287 Brain Machine Interface

EEE6321 Analog IC Design 2

EEE6323 Digital IC Design 2

EEE6328 Microwave IC

EEE6374 RF CKTs & Systems

EEE6428 Comp. Nanoelectronics

EEE6503 Digital Filtering

EEE6586 Automatic Speech Proc.

EEE6591 Wireless Networks

EEL3402 Remote Sensing

EEL4222 Resonant MEMS

EEL4242C/5317 Power Electronics

EEL4251/EEL5934-Power Sys. Anal.

EEL4271/EEL5934- Power Sys. Prot.

EEL4287/EEL5934- Smart Grid

EEL4403 Comput. Photography

EEL4412/EEL5417- App Mag & Mag Mtls

EEL4421 RF/Microwave Pass. Circ.

EEL4440- Optical Comm. Sys.

EEL4446/EEL5447 Laser Theory & Des.

EEL4458/EEL5441- Fund. Of Phot.

EEL4461- Antenna Systems

EEL4473/EEL6486 E-mag Fields & Apps 2

EEL4495 Lightning

EEL4516/5544 Noise in Lin Sys

EEL4523 Audio Engineering

EEL4540/EEL5547- Intro to Radar

EEL4598/5718 Data Cpr Comm

EEL4599 Wireless and Mobile Net.

EEL4610/5182 State Variable Meth

EEL4713C Digital Comp. Arc

EEL4720/5721 Reconfig Cpr

EEL4732 Adv. Syst. Programming

EEL4736/5737 Prin Cpr Sys Design

EEL4750/EEE5502 Found. of DSP

EEL4853 Cross-Layered Syst. Sec.

EEL4930 Elem. of Mach. Learning

EEL4930 Machine Learning

EEL4930 Microprocessor Apps 2

EEL4930 Mod. Memory Dev. Tech.

EEL4930 Plasma Physics for EE

EEL4930 RF/Power Elect. Devices

EEL4930/5934 Biophotonics

EEL4930/EEL6935 IC Test 2

EEL5451L- Photonics Lab

EEL6287 Brain Machine Interfaces

EEL6487 E-Mag Fields & Apps 3

EEL6507 Queueing Theory

EEL6509 Wireless Comm

EEL6532 Info Theory

EEL6533 Stat Dec Theory

EEL6535 Digital Comm

EEL6550 Error Cor Coding

EEL6614 Modern Control Theory

EEL6617 Linear Multivar Control

EEL6619 Robust Control System

EEL6706 Fault Tolerant Cpr

EEL6763 Parallel Cpr Arch

EEL6781 Automatic Cpr.

EEL6814 Neural Networks

EEL6892 Virtual Computers

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