

Electrical Engineering Minimum Hours for graduation = 126.5

(MAY-2022)

1. Foundations in Electrical Engineering – Take 15 Required Courses - 52 semester hours

- EE 1014: Introduction to Electrical Engineering
- EE 1024: Introduction to Computer Engineering
- EE 2104: Circuits I
- EE 2114: Circuits II
- EE 2213: Instrumentation Laboratory
- EE 3214: Electromagnetics and Materials I
- EE 3223: Electromagnetics and Materials II
- EE 3334: Linear Signals and Systems
- EE 3343: Electronics I
- EE 3513: Digital Signals and Systems
- EE 3954: Microprocessors and Microcontrollers
- EE 3963: Electric Machines
- EE 3973: Electronics II
- EE 4953: EE and CpE Capstone Design I
- EE 4963: EE and CpE Capstone Design I

2. Senior EE/CS Electives – Choose 2 Courses – (minimum of 6 hours)

- EE 3613: Computer Organization
- EE 3753: Introduction to Computer Networks
- EE 4053: Physical and Power Electronics
- EE 4143: Design of Digital Circuits
- EE 4183: Micro and Nano Fabrication
- EE 4213: Feedback Control Theory
- EE 4313: Optoelectronics and Photonics
- EE 4403: Microwave Theory and Devices
- EE 4523: Power Systems Engineering/Analysis
- EE 4673: Embedded Systems
- EE 4683: Computer Architecture
- EE 4713: Communication Engineering
- EE 4853: Electronic Navigation Systems
- EE 4913: Programmable Logic Controllers
- CS 3560: Software Engin.Tools & Practices (3)
- CS 4000: Intro Dstrb., //, Web-Cntrc Cmptng (3)
- CS 4040: Design & Analysis of Algorithms (3)
- CS 4060: Computation Theory (3)
- CS 4100: Intro to Formal Lang. &Compilers (3)
- CS 4160: Problem Solving w/ Bioinf. Tools (3)
- CS 4170: Programming for Bioinformatics (3)
- CS 4250: Interactive Computer Graphics (3)
- CS 4420: Operating Systems (3)
- CS 4440: Data Communications (3)
- CS 4500: Advanced Object Oriented Design & GUI Techniques (3)
- CS 4580: Operating Systems II (3)
- CS 4620: Database Systems (3)
- CS 4750: Internet Engineering (4)
- CS 4800: Artificial Intelligence (3)

3. Technical Electives – Choose 2 Courses – (minimum 5 hours) (+0.5 ET 1500 Career Orientation).

- Any EE 4XXX,
- Any CS 4XXX,
- Any MATH 4XXX;
- MGT 2000;
- ME 3510 (CAD);
- CE 3400 (Fluid Mech);
- ET 1100 (2) (CAD)
- ET 2240 (Dynamics);
- ET 3200 (Thermo);
- ET 2300 (Materials);
- ET 2220 (Strengths)

4. Math&Basic Science (Take 8 Required) (min: 30 hours; Accreditation Requirement)

- MATH 2301: Calculus I (4.0)
- MATH 2302: Calculus II (4.0)
- MATH 3300: Calculus III (4.0)
- CHEM 1510: Fundamentals of Chemistry I (4.0)
- PHYS 2051/PHYS 2054+2025: Gen. Phys (4.0)
- EE 3713: Applied Probability & Statistics for EE (3)
- EE 2324: Analytical Foundations of EE (4)
- PHYS 2053/CHEM 1520: Contemporary Physics (3)

5. Take 5 hours of General Engineering Courses from:

- ET 2200- Statics (3.0)
- ET 3200: Engin. Thermodynamics (3.0)
- ET 2300: Principles of Engin. Materials (3.0)
- ET 3300: Engineering Economy (2)

6. Take 17 hours of General Education (BRICKS)

- ENG 1510 (3) Writing & Rhetoric
- ET 3800J (3) Advanced Writing
- Humanities (3)
- Social/Behavioral Sciences (3)
- Arts (3)
- Intercultural Explorations (2)

7. Take 2 Programming Electives: (Take the CS Placement Exam to establish if you have prior programming experience or not)

- If no prior programming experience start with either CS 2300 (JAVA) or ET 100 (Python). Continue with CS 2400 (C++).
- With prior programming experience take CS 2400 (C++) followed by either CS 2401 (C++), or CS 2300(JAVA), or ET 2100 (Python).

8. Take 2 Courses:

- ET 1000/HIST 2905 (3) History of E&T in Society,
- CS 2653 (3) Professional/Ethical Computing.

9. Important Notes for Graduation:

- a) You cannot use the** same course to satisfy two program requirements at the same time (unless in TierIII or in Minors).
- b) Failing a Required** course 3-times (with F, WF, FS, or with < C in EE 2104, MATH 2301, 2302), forces you out of the program.
- c) To graduate:** You need three (OU, ENT, Major) GPAs > 2.0 and at least 126.5 hours of credit.