

Electrical Engineering Minimum Hours for graduation = 126

(JAN-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 6 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 2240 (Dynamics);
- ET 3200 (Thermo);
- ET 2300 (Materials);
- ET 2220 (Strengths)

4. Math&Basic Science (Take 7 Required + 1 Elective) (min: 32 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: Gen. Phys (5.0)
- EE 3713: Applied Probability & Statistics for EE
- EE 2324: Analytical Foundations of EE
- Science Elective with Lab (4.0) [>PHYS 2502 .or. >CHEM 1510 .or. (BIOS 1700 .and. BIOS 1705)]

5. Additional Requirements-(take 16 hours of General Engineering + 14 hours of General Education)

- **Take One Engineering Required courses:** ET 3300: Engineering Economy (2.0);
- **Take Two Engineering Electives :** Choose 2-courses from : ET 2200- Statics (3.0); ET 2220: Strength of Materials (3.0); ET 2240: Dynamics (3.0); ET 3200: Engin. Thermodynamics (3.0); ET 2300: Principles of Engin. Materials (3.0); CE 3400: Fluid Mechanics (3.0)
- **Take Two Programming Electives:** If no prior progr. experience start with: either CS 2300(4)(Java) or ET 2100(4)(C). Continue with CS 2400(C++); Else take CS 2400(4) followed by either CS 2401(4) or the Java Course CS 2300.
- **Take Six General Education Courses:** (14 hours = 3+3+2+2+2+2) (1E;1J;2CP;2HL;2FA;2SS)

6. IMPORTANT NOTES:

- 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) Cannot retake class to improve a grade, if the class is a prereq to another class that you have already passed.**
- d) To graduate:** You need three (OU, ENT, Major) GPAs > 2.0 and at least 126 hours of credit.