

# Computer Engineering Track Minimum Hours for graduation = 127.5

(MAY-2022)

## 1. Foundations in Electrical and Computer Engineering – Take 16 Required Courses - 54 credit 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 3343: Electronics I
- EE 3513: Digital Signals and Systems
- EE 3613 Computer Organization
- EE 3753 Intro to Computer Networks
- EE 3954: Microprocessors and Microcontrollers
- EE 4673: Embedded Systems
- EE 4683: Computer Architecture
- EE 4953: EE and CpE Capstone Design I
- EE 4963: EE and CpE Capstone Design II
- CS 4420: Operating Systems (3.0)

## 2. Senior EE/CS Electives – Choose 1 Course – (minimum of 3 credit hours)

- 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: Intro to Electric Power System Engineering & Analysis
- EE 4713: Communication Engineering
- EE 4853: Electronic Navigation Systems
- EE 4913: Programmable Logic Controllers
- CS 4000: Intro to Distributed, Parallel, & Web-Centric Computing (3.0)
- CS 4040: Design & Analysis of Algorithms (3.0)
- CS 4060: Computation Theory (3.0)
- CS 4100: Intro to Formal Lang.&Compilers (3.0)
- CS 4160: Prblm Solving w/ Bioinf. Tools (3.0)
- CS 4170: Programming for Bioinformatics (3.0)
- CS 4250: Interactive Computer Graphics (3.0)
- CS 4440: Data Communications (3.0)
- CS 4500: Advanced Object Oriented Design & GUI Techniques (3.0)
- CS 4580: Operating Systems II (3.0)
- CS 4620: Database Systems (3.0)
- CS 4750: Internet Engineering (4.0)
- CS 4800: Artificial Intelligence (3.0)

## 3. Technical Electives – Choose 1 Course – (min: 2 credit 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 1100 (2) (CAD)
- ET 2300 (Materials);
- ET 2220 (Strengths)

## 4. Math&Basic Science (Take 8 Required) (min: 30 credit 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+2055: 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 4 Computer Science Courses (15 credit hours)

- CS 2400: Introduction to Computer Science - I (4.0)
- CS 2401: Introduction to Computer Science - II (4.0)
- CS 3560: Software Engineering Tools and Practices (3.0)
- CS 3610: Data Structures (4.0)

## 6. Take 17 credit 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 Courses:

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

## 8. 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 127.5 hours of credit.