Computer Engineering Program
Catalog 2019/2020 – 128 Hours

NOTE: This flow chart is provided as a guide; the catalog is the only definitive source of requirements.

Requires a 3.1 average in Calculus I &II, Physics I & II with Labs, and Composition I & II

Mathematics – 17 hours

MAC 2281 (4 hrs) Engineering Calculus I

MAC 2282 (4 hrs) Engineering Calculus II

EGN 4450 (2 hrs) Intro to Linear Systems

MAC 2283 (4 hrs) Engineering Calculus III

MAP 2302 (3 hrs) Diff Equations **or** EGN 3433 (3 hrs) Model and Analysis*

Science – 15 hours

CHM 2045 CHM 2045L (4 hrs) Gen. Chem w/ Lab

Natural Science Elective (3 hrs)

PHY 2048/2048L Physics I w/ Lab (4 hrs)

PHY 2049/2049L Physics II w/ Lab (4 hrs)

EGN 3000/3000L (3 hrs) Foundations of Engineering

English – 6 Hours

ENC 1101 (3 hrs) Composition I → ENC 1102 (3 hrs) Composition II

COP 2510 (3 hrs) Programming Concepts

Note: COP 2510, CDA 3103, and COP 3514 with a minimum grade of B based on best attempts in each course. These requirements must be met with a maximum of two attempts allowed for each course. See the undergraduate catalog.

CDA 3103 (3 hrs) Computer Organization

COP 3514 (3 hrs) Program Design

COT 3100 (3 hrs) Discrete Structures

Co-prereq

COP 3331 (3 hrs) Object Oriented Software Design

CDA 3201/3201L (4 hrs) Computer Logic Design w/ Lab

COP 4530 (3 hrs) Data Structures

CDA 4205 (3 hrs) Computer Architecture

CDA 4203/4203L (4 hrs) Computer System Design w/ Lab

COT 4400 (3 hrs) Analysis of Algorithms

CDA 4213/4213L (4 hrs) CMOS VLSI Design w/ Lab

COP 4600 (3 hrs) Operating Systems

CIS 4910 (3 hrs) Comp Science and Eng Project

CIS 4250 (3 hrs) Ethical Issues and Prof Conduct

Engineering fundamentals and core courses

EGN 3615 (3 hrs) Engineering Economics with Social and Global Implications

EGN 3443 (3 hrs) Probability and Statistics for Engineers (MAC 2282 pre-req)

EGN 3373 (3 hrs) Electrical Systems (PHY 2049 and PHY 2049L pre-req, MAP 2302 co-req)

EEE 3394 (3 hrs) Electronic Materials (CHM 2045 and PHY 2049 pre-req)

Additional requirements

Gen Ed Social Science (3 hrs)
Gen Ed Humanities (3 hrs)
ENC 3246 Communication for Engineers (3 hrs)
Foreign Lang (8 hrs or 2 years high school)

Industry internship

An industry internship is recommended for the third summer. Credit can be earned as CIS 4940 Industry Internship. See the Department Advisor for more information.

Notes

1) Unless otherwise stated, the minimum acceptable grade in all required math, science, and engineering courses is a C or higher (C- is insufficient). The minimum acceptable grade in specialization courses is a C-, except as stated in the program admission and continuation requirements in the catalog. See the undergraduate catalog.
2) COP 4530 is the minimum prerequisite for most software electives, some software electives have COP 3331 as the prerequisite. CDA 3201 with lab is the minimum prerequisite for most hardware electives. COP 4530 and COT 3100 are the minimum prerequisites for theory electives. See the undergraduate catalog.
3) Department website lists elective courses by category. Should also consult with Department advisor.
4) Taking MAP 2302 may be best if seeking a Math minor. Should also consult with Department advisor.

General Electives (9 hrs)
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_____
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Departmental Electives Hardware, Software, Theory (6 hrs)
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_____

Hardware Electives (6 hrs)
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