# DEGREE REQUIREMENTS BACHELOR OF SCIENCE IN COMPUTER ENGINEERING – CPE FOR STUDENTS ENTERING CATALOG YEAR 2023-Present HERBERT WERTHEIM COLLEGE OF ENGINEERING, UNIVERSITY OF FLORIDA

# GENERAL EDUCATION REQUIREMENTS BEYOND MAJOR REQUIREMENTS (15 hours total) \*\*+

Composition (GE-C) ......3

Humanities (Quest 1)(GE-H)......6

Social & Behavioral Sciences (Quest 2) (GE-S) ......6 International & Diversity (GE-N, GE-D)\*......6

\*Courses selected could also fulfill the General Education requirements in Social & Behavioral Science (GE-S) or Humanities (GE-H). \*\*The Mathematics, Physical Sciences, & Biological Sciences requirements (18 hours) are fulfilled by departmental requirements listed below. +Students may have to complete additional General Education courses to meet State Core requirements. See advisor for course requirements.

#### DEPARTMENTAL REQUIREMENTS

(Prerequisites listed in (parentheses); Co-requisites underlined)

## Critical Tracking: Mathematics (15 hours)

- \_\_\_MAC 2311\* (4) Analytical Geometry & Calculus 1 (ALEKS/MAC 1147/Test credit)
- \_\_\_MAC 2312\* (4) Analytical Geometry & Calculus 2 (*Calc 1*)
- MAC 2313\* (4) Analytical Geometry & Calculus 3 (*Calc 2*)
- MAP 2302\* (3) Differential Equations (*Calc 1*)

## Critical Tracking: Physics (6 hours)

- \_\_PHY 2048\* (3) Physics 1 w/ Calculus (HS Physics or PHY 2020, Calc 1; Calc 2)
  - \_PHY 2049\* (3) Physics 2 w/ Calculus (PHY 2048 & Calc 2; Calc 3)

### **Enrichment Electives (minimum of 7 hours)**

For approved list of courses see: https://cpe.eng.ufl.edu/enrichment-electives/

### **College Writing Requirement (3 hours)**

\_ENC 3246\* (3) Professional Communication for Engineers

## Gen Ed Physical and Biological Sciences (4 hours)

\_\_For approved list of courses see: <u>https://catalog.ufl.edu/UGRD/colleges-</u> schools/UGENG/CPE\_BSCO/#modelsemesterplantext

#### Computer Engineering Core Courses (52 hours)

EGN 2020C (2) Engineering Design & Society (First Year Only) COP 3502C\* (4) Programming Fundamentals 1 (Java) (Calc1) COP 3503C\* (4) Programming Fundamentals 2 (C++) (COP 3502, MAC2311) or COP 3504C (4) (AP CS 4-5)1 COT 3100\* (3) App. of Discrete Structures (Calc 1; COP 3503C) CDA 3101\* (3) Intro to Comp. Organization (Calc 1, COT 3100) COP 3530\* (3) Data Structures & Algorithms (COP 3503, COT 3100, Calc 2) (3) Intro to Software Engineering (COP 3530) CEN 3031\* COP 4600\* (3) Operating Systems (COP 3530, CDA 3101; CEN 3907C) EEL 3111C (4) Circuits 1 (PHY 2049, Calc 2) EEL 3135 (4) Signals & Systems (Calc 3, COP 3503C) EEL 3701C\* (4) Digital Logic & Computer Systems (prog. Experience) EEL 4744C\* (4) Microprocessor Applications (EEL 3701C) EEL 4712C (4) Digital Design (EEL 3701C) EGS 4034 (1) Engineering Ethics and Professionalism (Jr. status) \_STA 3032 (3) Engineering Statistics or STA 4321 (Calc 1) \_MAS 3114 (3) Comp. Linear Alg. or MAS 4105 (Calc 2 & programming language EP)

# Design I & II Sequences (6 Credits)

\_\_CEN 3907C\* & CEN 3908C\* (CpE Design) (*CEN 3031, EEL 4744C; <u>COP 4600</u>*) \_\_EGN 4951\* & EGN 4952\* (IPPD) (*CEN 3031, EEL 4744C, <u>COP 4600</u>*)

± Minimum Total Hours.....126

### Tech Electives (18 hours)

Technical elective coursework is in addition to core coursework and enrichment electives. At least 12 technical elective credits must be from the CISE and/or ECE department(s).

Qualifying technical electives include, unless otherwise excluded:

- 4000-level or higher CpE program, CISE, Mathematics, and Statistics courses
- 3000-level CAP prefix CISE, ECE, and Physics courses
- Other courses approved by program coordinator

The following courses do not qualify as technical electives (i.e., are excluded):

- Required curriculum courses
- EEL 3000, EEL 3003, EEL 3834, EEL 3872, EEL 4837

-Students may take no more than one technical elective that teaches a specific programming language; courses teaching Python and C++ do not qualify.

-No more than 3 hours of co-op / Practical Work will qualify
-No more than 6 hours of Research and/or Independent Study credits will qualify

-No more than 8 hours of Research, Independent Study, and/or Practical Work credits will qualify

#### **Other Notes and Restrictions**

-MAD 4203 and MAD 3107 will not qualify for any portion of the required credits for the CpE program (including technical, enrichment, and general electives)"

-Only one of COT 4501 and MAD 4401 may qualify for CpE requirements -Only one of COT 4420 and MAD 4505 may qualify for CpE requirements

CpE students will have credit for two programming courses (Java and C++). One additional programming language course (not Java or C++) can count as a technical elective. EEL 3834 is no longer considered a tech elective.

Notes:

- ✓ Communication between students and Advisors is conducted through the CpE Advising Corner Canvas page.
- ✓ Students must complete all Critical Tracking courses (in bold) with a grade of C or better within two attempts (W's do count as attempts) while maintaining a 2.5 tracking GPA.
- ✓ Must maintain UF, upper-division, and major GPA of at least a 2.0.
- Any course that is a pre-requisite to another course in the curriculum must be completed with a grade of C or better.
   Concerns can be addressed with the academic advisor.
- ✓ Both University and Departmental Exit Interviews are required during the final semester.
- ✓ Students who do not meet these requirements will be placed on academic probation and will be required to prepare a probation contract with a CpE advisor.

<sup>1</sup> COP3504C may be taken in lieu of COP3502C/COP3504C. Students must complete an additional 4 credits to meet graduation requirements.



Rev 4/21- This document is intended to be used only as a counseling guide. Graduation requirements are more completely specified in the UF Undergraduate Catalog. Students are asked to meet with their academic advisor for verification of all degree and graduation requirements.

<sup>\*</sup>These courses require a grade of C or higher to count toward graduation.