### Computer Engineering Curriculum Guide effective Fall 2016 ~ North Dakota State University

**STUDENT:**

**ID #:**

**ADVISOR:**

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**Total Credits:** 128

**General Education Electives**

*Approved courses listed in the registration schedule centerfold.*

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**General Education Categories:**

- A - Humanities/Fine Arts
- B - Social/Behavioral Sciences
- C - Communication
- D - Cultural Diversity
- E - Science & Technology
- F - First-Year Experience
- G - Global Perspectives
- L - Co-requisite Lab
- R - Quantitative Reasoning
- S - Wellness

**ECE Elective:** any ECE 4xx course, excluding 494 and 496

**Tech Elective:** any didactic 4xx course from ECE or CSCI, or any of the following: CSCI 336, CSCI 366, CSCI 372, ECE 311, ECE 321, ECE 351, ECE 494, ECE 496 (max 3 hours), ENGR 310, PHYS 252, IME 440, IME 456, IME 460, IME 470

**Students must take ECE 111 prior to enrolling in ECE courses listed above in the Junior or Senior years; otherwise, students must take an additional ECE Elective in lieu of ECE 111**

**Students must earn a "C" or better in ECE 173, ECE 275, EE 206, and all required MATH courses, before enrolling in ECE courses listed above in the Junior or Senior years**

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1. Students must have at least a 2.0 GPA in all required EE and ECE courses taken at NDSU, in order to graduate. Elective ECE courses are not included in this GPA requirement.
COMPUTER ENGINEERING ELECTIVES

1510-1530

TECH ELECTIVES: any didactic 4xx-level course from ECE or CSCI, or any of the following:

CSCI 335
CSCI 336
CSCI 366
CSCI 372
ECE 311
ECE 321**
ECE 351
ECE 494
ECE 496 (max 3 credits)
Engr 310
PHYS 252
IME 440
IME 456
IME 460
IME 470

** If you have already taken ECE 321 when it was a 5-credit course, only 3 credits are needed for CpE majors. The remaining 2 credits will count towards the 6-credit Tech Elective requirement. The new ECE 321 is 2 credits as of Fall 2014. -

ECE ELECTIVES FOR COMPUTER ENGINEERING MAJORS

Any ECE 4xx-level course, excluding ECE 494 and ECE 496.

Nov. 2014
Computer Engineering Curriculum Flowchart

Freshman Year

- ENGL 100
- ENGL 110 Comp I
- CHEM 121 Chem I
- ECE 173 Intro to Computing
- MATH 165 Calc I
- Wellness Elective

Sophomore Year

- Science Lab
- ECE 111 Intro to ECE
- MATH 129 Linear Algebra
- PHYS 251 Physics I
- MATH 166 Calc II

Junior Year

- COMM 110 Public Speaking
- ECE 275 Digital Design
- CSCI 222 Discrete Math
- EE 206 Circuits I
- MATH 265 Calc III

- CSCI 459 Computer Networks
- ECE 374 Computer Organization
- CSCI 161 Computer Science II
- ECE 320 Electronics I (first 10 wks of semester)
- MATH 266 Diff Eq

- CSCI 474 Operating Systems
- ECE 474 Computer Architecture
- CSCI 413 Software Engineering
- ENGR 402 Engineering Ethics
- ECE 343 Signals & Systems

- Upper Level Writing
- ECE 475 Advanced Digital Design
- ECE 376 Embedded Systems
- ECE 401 Senior Design I
- ECE 341 Random Processes

Senior Year

- ECE Elective
- Tech Elective
- ECE 403 Senior Design II
- Gen Ed Elective
- Gen Ed Elective

- CSCI 467 Algorithms
- Tech Elective
- ECE 405 Senior Design III
- Gen Ed Elective
- Gen Ed Elective

- Prerequisite
- Corequisite