

Computer Engineering

Department Information

- **Department Web Site:**
www.ndsu.edu/ece/ (<http://www.ndsu.edu/ece/>)
- **Credential Offered:**
B.S.Cpr.E.
- **Official Program Curriculum:**
catalog.ndsu.edu/undergraduate/program-curriculum/computer-engineering/ (<http://catalog.ndsu.edu/undergraduate/program-curriculum/computer-engineering/>)

First Year			
Fall	Credits	Spring	Credits
MATH 098 ¹		3 MATH 103 ¹	3
ENGL 110		3 CHEM 121	3
COMM 110		3 ENGL 120	3
GEN ED Wellness		2 ECE 111	3
GEN ED Social/Behavioral Science and Global Perspective		3	
		14	12
Second Year			
Fall	Credits	Spring	Credits
MATH 105 ¹		3 MATH 165 ¹	4
MATH 129 ¹		3 CSCI 161	4
CSCI 160 ^{1,4}		4 CSCI 222	3
GEN ED Humanities/Fine Arts and Cultural Diversity		3 ECE 275 ¹	4
		GEN ED Science Lab (CHEM 121L or PHYS 251L)	1
		13	16
Third Year			
Fall	Credits	Spring	Credits
MATH 166 ¹		4 MATH 265 ¹	4
EE 206 ¹		4 PHYS 251	4
ECE 375		3 ECE 320	3
ENGR 327		3 ECE 311	4
GEN ED Upper Level English		3	
		17	15
Fourth Year			
Fall	Credits	Spring	Credits
MATH 266 ¹		3 ECE 403	2
ECE 376		4 ECE 341	3
ECE 374		4 CpE Core ³	3
ECE 343		4 CpE Core ³	3
ECE 401		1 ECE Elective	3
ECE Elective		3	
		19	14

Fifth Year	
Fall	Credits
ECE 405	3
CpE Core ³	3
CpE Core ³	3
Tech Elective ²	3
GEN ED Social/Behavioral Science	3
	15

Total Credits: 135

1

1. This course requires the student to earn a "C" or better, in order to take upper level ECE courses.

2

Choose from the approved Tech Elective List.

3

CpE Core Options:

1. **ECE 474 Computer Architecture** (prereq: ECE 374)
2. **ECE 477 Hardware design for Machine Learning** (prereqs: ECE 374 and ECE 375)
3. **ECE 423 VLSI Design** (prereqs: ECE 311 and ECE 321)
4. **ECE 425 Intro to Semiconductors** (prereqs: ECE 320)
5. **CSCI 474 Operating System Concepts** (prereqs: CSCI 374)
6. **CSCI 467 Algorithm Analysis** (prereqs: MATH 166, CSCI 161 and CSCI 222 or MATH 270)

4

ECE 173 is also an approved course for this requirement.