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	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)