

BS Electrical Engineering Major	
Suggested Plan of Study	
Department of Electrical and Computer Engineering: Phone (320) 308-3252 or ece@stcloudstate.edu	
Electrical and Computer Engineering Department Chair	
Dr. Mahbub Hossain 320-308-5319 mahbub@stcloudstate.edu	
First Semester	Second Semester
MATH 221 (4CR) Calculus I ECE 210 (3CR) Embedded System Design Project Mgmt. GENG 101 (3 CR) Ethics and the Engineering Profession ENGL 191 (4CR) Intro to Rhetorical and Analytic Writing Total Semester Credits: 14	MATH 222 (4CR) Calculus II PHYS 234 (5CR) Classical Physics I GENG 102 (3CR) Engineering Problem Solving CMST 192 (3CR) Intro to Communication Studies Total Semester Credits: 15
Third Semester	Fourth Semester
MATH 327 (4CR) Differential Equations with Linear Algebra PHYS 235 (5CR) General Physics II ECE 201 (3CR) Circuit Analysis I ECE 220 (4CR) Digital Logic Design Total Semester Credits: 16	MATH 320 (3 CR) or MATH 321 (4 CR) or PHYS 346 (3 CR) ECE 202 (4CR) Circuit Analysis II CSCI 201 (4CR) Computer Science I GENG 380 (2CR) Engineering Communications CHEM 210 (4CR) General Chemistry I Total Semester Credits: 17
Fifth Semester	Sixth Semester
STAT 353 or 417 (3CR) ECE 301 (4CR) Signals and Systems ECE 314 (4CR) Digital Electronics ECE 320 (4CR) FPGA Based Digital Circuit Design LEP Goal 7 Course (3CR) Total Semester Credits: 18	Junior Elective (3CR) ECE 316 (4CR) Analog Electronics ECE 323 (4CR) Introduction to Microprocessors ECE 391 (4CR) Engineering Electromagnetics Total Semester Credits: 15
Seventh Semester	Eighth Semester
Senior Elective (3CR) Depth Elective (3CR) Breadth Elective (3CR) ECE 461 or 462 (3CR) Senior Design LEP Course (6CR) Total Semester Credits: 18	Depth Elective (3CR) Breadth Elective (3CR) ECE 461 or 462 (3CR) Senior Design LEP Course (6CR) Total Semester Credits: 15

Program Requirements (85-86 credits): GENG 101, GENG 102, ECE 201, ECE 202, ECE 210, ECE 220, ECE 301, ECE 314, ECE 316, ECE 320, ECE 323, GENG 380, ECE 391, ECE 461, ECE 462; CSCI 201; CHEM 210; PHYS 234, PHYS 235; MATH 221, MATH 222, MATH 327, MATH 320 or MATH 321 or PHYS 346.

Electives (21-23 credits):

Junior Elective (3-4 credits): Select one course from any 400 level ECE courses, MME 201, MME 211, MME 224, MME 243; PHYS 328, PHYS 329, PHYS 333, PHYS 334, PHYS 435, PHYS 436, PHYS 445, ECE 390. Some courses are 4 credits.

Statistics Elective (3 credits): STAT 353 or STAT 417.

Depth Sequence (6 credits): Select one sequence from the following:

- 1) Digital: ECE 421 and ECE 422 or ECE 423 or ECE 424.
- 2) Electronics: ECE 411 and ECE 482.
- 3) Power: ECE 411 and 412.
- 4) Systems: Select two courses from ECE 424, ECE 431, ECE 432, ECE 433, ECE 451, ECE 452, ECE 471, ECE 473, or ECE 474.

Breadth Electives (6 credits): Select two courses from ECE 411, ECE 412, ECE 421, ECE 422, ECE 423, ECE 424, ECE 431, ECE 440, ECE 451, ECE 471, or ECE 482.

Senior Elective (3-4 credits): Select from any 400 level ECE courses; PHYS 435, PHYS 436, PHYS 445; ENGR 425, ENGR 447; MATH 411, MATH 421, MATH 423, MATH 427, MATH 452, MATH 455; STAT 447; CSCI 330, CSCI 331, CSCI 421, CSCI 450, MME 352, MME 450. Some courses are 4 credits.

Elective courses cannot double count.

LEP: Liberal Education Program.