

Saint Louis University
Electrical and Computer Engineering Department
ELECTRICAL ENGINEERING FLOW CHART

Name: _____

Student #: _____

First semester: _____

Freshman

ECE 1001 Introduction to ECE I	1 _____	ECE 1002 Introduction to ECE II	1 _____
CHEM 1110 General Chemistry I	3 _____	CSCI 1060 Scientific Programming (MATH 1510)	3 _____
CHEM 1115 General Chemistry Lab (co-CHEM 1110)	1 _____	MATH 1660 Discrete Math (MATH 1200)	3 _____
ENGL 1920 Adv Writing for Professionals ¹	3 _____	MATH 1520 Calculus II (MATH 1510)	4 _____
MATH 1510 Calculus I	4 _____	PHYS 1610 Engr Physics I (MATH 1510)	3 _____
THEO 1000 Theological Foundations	3 _____	PHYS 1620 Engr Physics I Lab (co-PHYS 1610)	1 _____
	15		15

Sophomore

ECE 2101 Electrical Circ I (MATH 1520, PHYS 1610)	3 _____	ECE 2102 Electrical Circuits II (ECE 2101)	3 _____
ECE 2205 Digital Design	3 _____	ECE 2103 Electrical Circuits Lab (co-ECE 2102)	1 _____
ECE 2206 Digital Design Lab (co-ECE 2205)	1 _____	MATH 3110 Linear Algebra (MATH 1520)	3 _____
MATH 2530 Calculus III (MATH 1520)	4 _____	MATH 3550 Differential Eq. (MATH 2530)	3 _____
PHYS 1630 Engr Physics II	3 _____	ESCI 2300 Thermodynamics (MATH 2530)	3 _____
PHYS 1640 Engr Physics II Lab (co-PHYS 1630)	1 _____	Core: Social & Behavioral Science ⁴	3 _____
	15		16

Junior

ECE 3110 Energy Conv (ECE 2102, MATH 3550)	3 _____	ECE 3052 Prob & RV Engr (MATH 2530, prog ⁸)	3 _____
ECE 3225 Microprocessors (prog ⁸)	3 _____	ECE 3131 Electronic Circuits (ECE 3130)	3 _____
ECE 3226 Microprocessors Lab (co-ECE 3225)	1 _____	ECE 3132 Electronic Circuits Lab (co-ECE 3131)	1 _____
ECE 3130 Semiconductors (ECE 2102, MATH 3550)	3 _____	ECE 3090 Junior Design (ECE 3150)	1 _____
ECE 3150 Linear Systems (ECE 2102, MATH 3550)	3 _____	ECE 4120 Auto Controls (ECE 3150)	3 _____
ECE 3151 Linear Systems Lab (co-ECE 3150, prog ⁸)	1 _____	ECE 3140 EM Fields (ECE 2102, MATH 3550)	3 _____
Open Elective ⁶	3 _____	PHIL 3400 Ethics & Engineering	3 _____
	17		17

Senior

ECE 4800 Senior Design I ⁷	3 _____	ECE 4810 Senior Design II (ECE 4800)	3 _____
ECE 4160 Communications (ECE 3150, ECE 3052)	3 _____	Core: Humanities ²	3 _____
ECE 4140 Electromagnetic Waves (ECE 3140)	3 _____	Core: Cultural Diversity ²	3 _____
ECE Elective ⁵	3 _____	ECE Elective ⁵	3 _____
Technical Elective ³	3 _____	Technical Elective ³	3 _____
	15		15

Total Hours: 125

¹ Students needing prerequisite work in writing skills as determined by ACT or SAT scores will be required to take ENGL 1500: the Process of composition (3) and perhaps ENGL 1040 Accelerated Reading

² Cannot be used to satisfy another core requirement.

³ Must be selected from courses in science, math, or engineering at the 2000 level or higher, or Computer Science at 3000 level or higher.

⁴ Must be taken from a list of approved courses in Social and Behavioral Science including Economics.

⁵ Must be taken from the approved list of ECE elective courses.

⁶ Course satisfying another major or minor, or a course satisfying the technical elective requirement.

⁷ REQUIRES SENIOR STANDING (all required technical courses through the junior year have been completed and passed)

⁸ Prerequisite requirement of computer programming, either CSCI 1060, CSCI 1300, or BME 2000