Electrical and Computer Engineering

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
EE 141 — 4	MATH 129* *MATH 125* — 4	MATH 229 *MATH 129* — 4	MATH 245 *MATH 229* — 4	EE 364 *MATH 245* — 4	EE ELECTIVE — 3-4	EE ELECTIVE — 3-4	CAPSTONE DESIGN ELECTIVE — 4
EE 155 — 4	PHYS 171L (GE E) *MATH 129* — 4	PHYS 172L *PHYS 151, 161 or 171* — 4	PHYS 173L *PHYS 172L* — 4	EE 370 *PHYS 172L or 162L* — 4	EE 355 *EE 155* — 4	GE B — 4	GE C — 4
EE 105 — 4	EE 109 *EE 155* — 4	EE 250L *EE 109L* — 4	EE 202L *PHYS 171* — 4	EE 301L *EE 202L* — 4	EE ELECTIVE — 3-4	REQUIRED ELECTIVE — 4	REQUIRED ELECTIVE — 4
WRIT 150 — 4	GESM (GE B)# — 4	GE A* — 4	GE C — 4	WRIT 340 *WRIT 150* — 4	GE D — 4	REQUIRED ELECTIVE — 4	REQUIRED ELECTIVE — 3
ENGR 102 — 2	OPTIONAL ELECTIVE — 2	OPTIONAL ELECTIVE — 2	OPTIONAL ELECTIVE — 2	OPTIONAL ELECTIVE — 2	OPTIONAL ELECTIVE — 2-4	OPTIONAL ELECTIVE — 2-3	OPTIONAL ELECTIVE — 2

MATHEMATICS (12 UNITS)

MATH 129: Calculus II*

MATH 229: Calculus III

MATH 245: Mathematics of Phys. and Engr. I

PHYSICS (12 UNITS)

PHYS 171: Applied Physics I: Mechanics

PHYS 172L: Applied Physics II: Electricity, Magnetism and Optics

PHYS 173L: Applied Physics III: Topics in Modern Physics

GENERAL EDUCATION (32 UNITS)

GE A The Arts (1 Course)*

GE B Humanistic Inquiry (2 Courses)

GE C Social Analysis (2 Courses)

GE D Life Sciences (1 Course)*

GE E Physical Sciences (1 Course)*

GE F Quantitative Reasoning (1 Course)*

GE G,H Global Perspectives (2 Courses)*

GESM General Education Seminar (1 Course)

WRITING (8 UNITS)

WRIT 150: Writing and Critical Reasoning

WRIT 340: Advanced Writing

ENGINEERING (56 UNITS)

EE 105: Intro. to Electrical Engineering

EE 109: Intro. to Embedded Systems

EE 141: Applied Linear Algebra for Engineering

EE 155: Intro. to Comp. Programming for EE

EE 202L: Linear Circuits

EE 250L: Distributed Systems for the Internet of Things

EE 301L: Linear Systems

EE 370: Electromagnetics for Engineering Systems

EE 355: Software Design for Engineers

EE 364: Intro to Probability & Statistics

ENGR 102: Engineering Freshman Academy

EE ELECTIVES

CAPSTONE DESIGN ELECTIVE

OTHER COURSES (15 UNITS)

REQUIRED ELECTIVES

SPECIAL NOTES

Courses with the * symbol may be satisfied with AP, IB, or A-Level exams. See page 16 for more information.

GESM#: GESM can be taken from GE categories: A, B, C, or D. Courses listed in the guide are options for a four-year course plan.

GE: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 15 for more information and consult your advisor for detailed assistance.

REQUIRED ELECTIVE: Required electives are needed to meet minimum unit requirement and can be met with AP/IB and transfer credit.

EE ELECTIVES: Minimum 16 units of advisor-approved, upper-division EE Electives, including the Capstone Design Elective.

CAPSTONE: Take one Capstone Course.

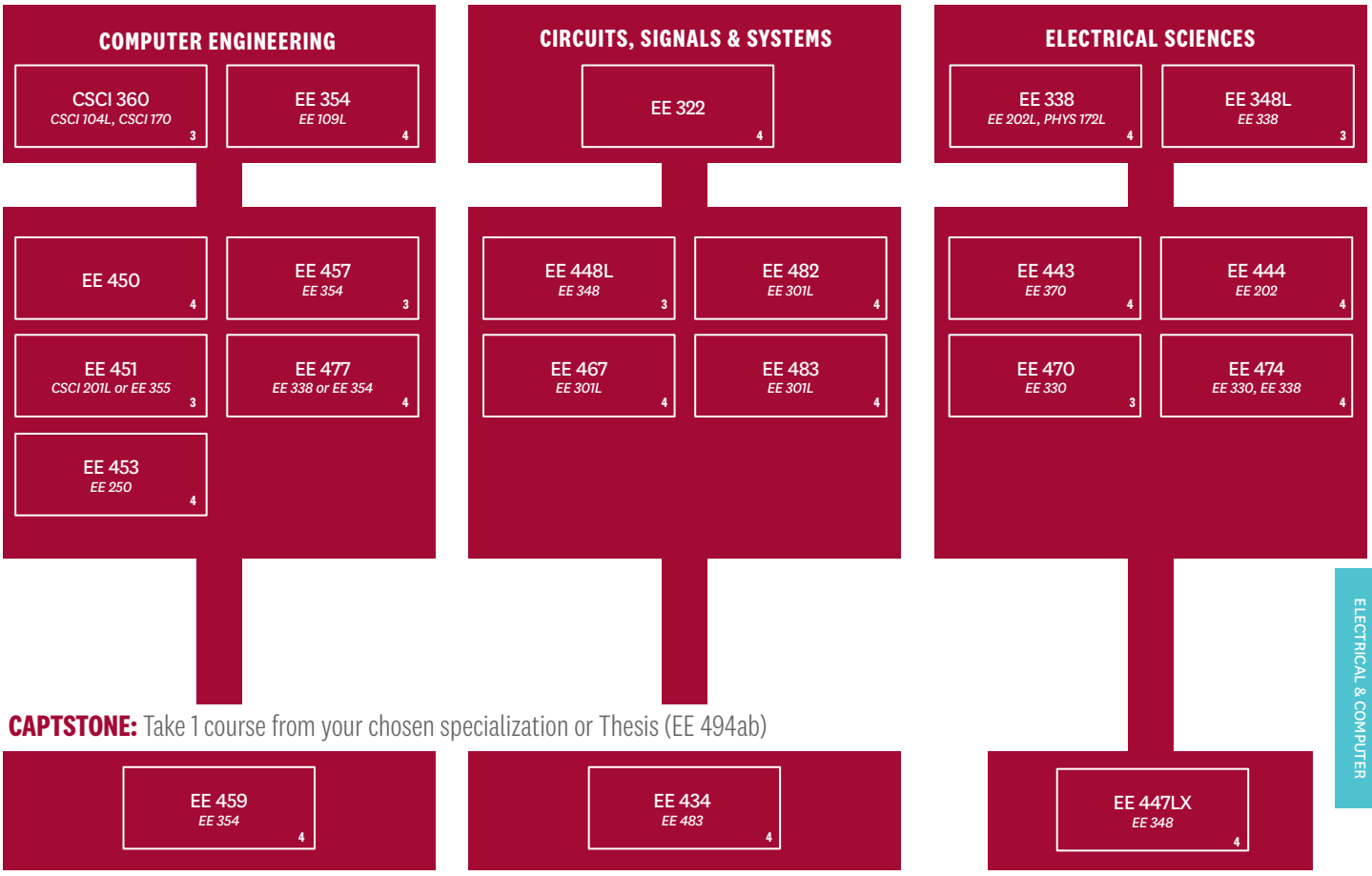
Electrical and Computer Engineering

Electrical and Computer Engineering offers three areas of specialization: Computer Engineering; Circuits, Signals, and Systems; and Electrical Sciences. Within each area of specialization, students can choose entry-level and advanced electives based on their interests.

- Computer Engineering focuses on software engineering, digital hardware, embedded systems, and VLSI design.
- Circuits, Signals, and Systems covers VLSI design, media and audio systems, wireless communications, adaptive control, and mixed-signal integrated circuits.
- Electrical Sciences focuses on communications hardware, integrated-circuit technology, energy sources and management, and mixed-signal integrated circuits.

CORE CURRICULUM: Required courses

EE ELECTIVES: Take minimum 16.0 units of advisor-approved, upper-division electives



CAPTSTONE: Take 1 course from your chosen specialization or Thesis (EE 494ab)