Electrical Engineering (Electronics and Communications) 123 credit hours total

YEAR 1

FALL
- MATH 220 (4)
  Analytic Geometry and Calculus I
  KSC-3
- MATH 222 (4)
  Analytic Geometry and Calculus II
  PR: MATH 220 ≥ C

SPRING
- CHM 210 (4)
  Chemistry I
- ECE 241 (3)
  Introduction to Electrical and Computer Engineering

YEAR 2

FALL
- MATH 340 (4)
  Elementary Differential Equations
  PR: MATH 221 ≥ C
- PHYS 213 (5)
  Engineering Physics I
  KSC-4
  PR/CO: MATH 220

SPRING
- MATH 222 (4)
  Analytic Geometry and Calculus III
  PR: MATH 221 ≥ C
- PHYS 214 (5)
  Engineering Physics II
  PR: PHYS 213
  PR/CO: MATH 221

YEAR 3

FALL
- ECE 431 (3)
  Microcontrollers
  PR: ECE 241, CIS 209
- ECE 511 (3)
  Linear Systems
  PR: ECE 410 or ECE 519, ECE 525, MATH 340

SPRING
- ECE 525 (3)
  Electronics I
  PR: ECE 410 or ECE 519
- ECE 526 (3)
  Electronics II
  PR: ECE 511, 525

YEAR 4

FALL
- ECE 590 (3)
  Senior Design Experience I
  PR: ECE 525, 540
- ECE 660 (3)
  Communication Systems I
  PR: ECE 512

SPRING
- ECE 591 (2)
  Senior Design Experience II
- ECE 647 (3)
  Digital Signal Processing
  PR: ECE 512

(16 credit hours) (16 credit hours) (16 credit hours) (16 credit hours) (14 credit hours) (14 credit hours) (15 credit hours) (14 credit hours)

KEY
- = Prerequisite for another course
- PR = Prerequisite requirement
- PR/CO = Prerequisite or concurrent requirement
- = Class applies as specialization
- = K-State Core (KSC) course
- = See department approved electives
- = Only offered in the semester shown

Flowchart is for advising purposes only. Students are responsible for complying with University Catalog requirements.
Students pursuing a B.S. in electrical engineering degree are required to complete one of the subplan options. These options include bioengineering, electronics and communications, and power systems.

For the good and benefit of the student and their future employer, the ECE department enforces a C-prerequisite policy for all courses listed by number in the curriculum and for any in-major technical elective course applied toward the degree. A grade of C or better must be earned in all prerequisites to such a course before enrolling in that course.

Technical Electives
Technical electives must be selected to complete one of the option areas.

See list of option areas and required electives at ece.k-state.edu/academics/undergraduate/electrical-engineering/specialization/.

No more than 12 credit hours of courses with prefix ECE may be transferred to Kansas State University for credit toward a bachelor’s degree in either electrical engineering or computer engineering. Further, those courses selected for transfer credit must be equivalent to courses in the list below and must be such that the prerequisites for the listed course are also satisfied. Any courses transferred must be taken from ABET accredited programs: ECE 210, ECE 241, ECE 410, ECE 525, ECE 557, ECE 581.

Substitutions
ECE 696 or ECE 764 can be substituted for ECE 662.

K-State Core
The K-State Core (KSC) is the university’s version of the systemwide general education framework established by the Kansas Board of Regents.

KSC requirement 1 – English (6 hours)
KSC requirement 2 – Communications (3 hours)
KSC requirement 3 – Math and Statistics (3 hours)
KSC requirement 4 – Natural and Physical Sciences (4-5 hours)
KSC requirement 5* – Social and Behavioral Sciences (6 hours)
KSC requirement 6* – Arts and Humanities (6 hours)
KSC requirement 7 – Institutional Electives (6 hours)

To view course lists for each requirement, visit k-state.edu/provost/kstate-core.

*Requires two courses from two different subject areas.