

Bachelor of Science in Electrical Engineering

- Course materials such as exercises, assignments, study guides, exams, and lectures will be delivered via the Internet using Canvas. Canvas is the university's learning management system.
- Students will receive a course supply list for labs in lieu of lab kit fees.
- Students are required to purchase a student license of MatLab and Simulink. This is a one-time purchase that will last as long as you are enrolled as a student.

Core Curriculum

All students who enter MSU must meet the common core curriculum requirements as set by the Board of Trustees, Institutions of Higher Learning of the State of Mississippi to qualify for any bachelor's degree.

- English Composition (6 hours)
- Fine Arts (3 hours)
- Humanities (6 hours)
- Social Sciences (6 hours)

Required Courses

Below are the required courses for the Bachelor of Science in Electrical Engineering program. **Please note that any required parts needed for a course are listed on the table.**

Math and Basic Science

MA 1713	Calculus I	3
MA 1723	Calculus II	3
MA 2733	Calculus III	3
MA 2743	Calculus IV	3
MA 3113	Introduction to Linear Algebra	3
MA 3253	Differential Equations I	3
IE 4613	Engineering Statistics I	3

Math and Basic Science

CH 1213*	Chemistry I* (not available online through MSU)	3
CH 1211*	Investigations in Chemistry I* (not available online through MSU)	1
PH 2213*	Physics I* (not available online through MSU)	3
PH 2223*	Physics II* (not available online through MSU)	3
Total Hours		31

Engineering Topics

CSE 1284	Introduction to Computer Programming	4
CSE 1384	Intermediate Computer Programming	4
CSE 2383	Data Structures and Analysis of Algorithms	3
ECE 1013	Foundations in ECE	≡ Required Parts 3
ECE 1022	Foundations in Design	≡ Required Parts 2
ECE 3423	Circuits I	3
ECE 3421	Circuits I Lab	≡ Required Parts 1
ECE 3433	Circuits II	3
ECE 3244	Electronics I	≡ Required Parts 4
ECE 3443	Signals and Systems	3
ECE 3313	Electromagnetics I	3
ECE 3323	Electromagnetics II	3
ECE 3614	Fundamentals of Energy Systems	≡ Required Parts 4
ECE 4512	Capstone Design I	≡ Required Parts 2
ECE 4522	Capstone Design II	≡ Required Parts 2

Engineering Topics

ECE 3714	Digital Devices and Logic Design	≡ Required Parts	4
ECE 3724	Microprocessors	≡ Required Parts	4
EM 2413* or ME 3513*	Engineering Mechanics I* or Thermodynamics I*		3
((not available online through MSU)			
EE technical electives - 4 3-hour upper level ECE 4xxx Technical Electives are required			12
Engineering Science elective - IE 3913 Engineering Economy			3
Professional Enrichment elective - may be additional Engineering Science Elective, Technical Elective or other approved option planned with advisor.			3
Total Hours			73

Writing Requirement

GE 3513	Professional Communication for Engineers	3
Total Hours		128

* Not available online through Mississippi State University. A transferrable equivalent course will need to be taken through another institution.