COLLEGE OF
ENGINEERING, ARCHITECTURE
AND TECHNOLOGY

ELECTRICAL ENGINEERING

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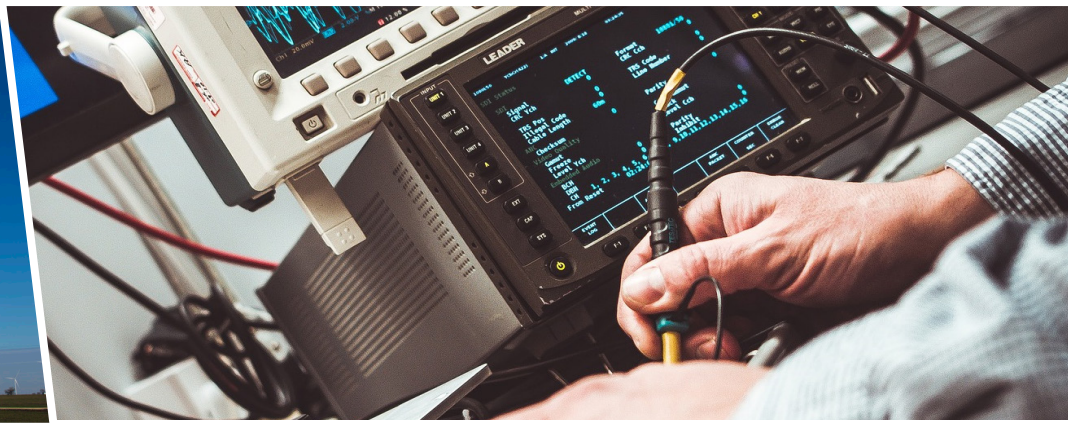

WHAT IS ELECTRICAL ENGINEERING?

Electrical Engineering encompasses a broad range of technologies that utilize electricity for the benefit of society. Subdisciplines include energy systems, machines, power electronics, analog electronics, instrumentation, sensors, signal processing, machine vision, communications, robotics, wireless devices, radar, photonics, biomedical devices, and artificial intelligence.

WHY ELECTRICAL ENGINEERING AT OSU?

The School of Electrical and Computer Engineering at OSU provides high quality, comprehensive education for both undergraduate and graduate degree seeking students. The School incorporates software, hardware, and design experiences in its curriculum. Our faculty are committed to student excellence and our students are highly recruited by industry. We emphasize both theory and application to prepare students for their first entry-level job.

HIGHLIGHTS

- Ample scholarships to a diverse student body
- Dual BS Electrical Engineering and BS Computer Engineering degree
- “4+1” BS Electrical Engineering/Computer Engineering and Master of Engineering degree
- Ample software, hardware, computer, laboratory, and design experiences
- Highly engaged faculty and student-centric culture

CAREER INDUSTRIES & FOCUS AREAS

OPTIONS

“4+1” Accelerated BS and Master of Engineering program

Dual bachelor degree option for computer and electrical engineering

CAREER OPPORTUNITIES

- Circuit, device and instrumentation engineering
- Energy and power engineering
- Robotics and systems engineering
- Mobile and communications engineering
- Machine vision and artificial intelligence engineering
- Consulting, manufacturing, management, and marketing

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AND TECHNOLOGY

BACHELOR OF SCIENCE

ELECTRICAL ENGINEERING

Typical Four-Year Curriculum

FIRST YEAR

Fall Semester

ENGR	1111	Intro to Engr
MATH	2144	Calculus I
CHEM	1414	Gen Chemistry
CS	1113	Comp Science I
ENGL	1113	Engl Comp I

Spring Semester

MATH	2153	Calculus II
POLS	1113	American Gov't
PHYS	2014	Gen Physics I
ECEN	3223	Digital Logic Des
CS	2133	Comp Science II

SECOND YEAR

Fall Semester

MATH	2163	Calculus III
PHYS	2114	Gen Physics II
MATH	2233	Diff Equations
HIST	1103	American History
ECEN	2714	Fund Elec Circuits

Spring Semester

PHYS	3313	Intro Device Physics
ENSC	2113	Statics
ENSC	3213	Comp Based Systems
ECEN	3714	Network Analysis
XXXX	XXXX	"S" Elective

THIRD YEAR

Fall Semester

MATH	3013	Linear Algebra
ECEN	3613	EM Fields
ENGL	3323	Technical Writing
ECEN	3314	Electr Dev & Appl
XXXX	XXXX	"H" Elective

Spring Semester

IEM	3503	Engr Economics
ECEN	3513	Signal Analysis
ECEN	XXXX	ECEN Area
XXXX	XXXX	"S/I/D" Elective
XXXX	XXXX	"H" Elective

FOURTH YEAR

Fall Semester

ECEN	4024	Capstone Design
ECEN	4503	Random Signals
ECEN	XXXX	ECEN Area
ECEN	XXXX	ECEN Area
XXXX	XXXX	Tech Elective

Spring Semester

ECEN	4024	Capstone Design
ECEN	XXXX	ECEN Area
ECEN	XXXX	ECEN Area
XXXX	XXXX	Tech Elective

ECEN AREA CLASS OPTIONS

ECEN	3113	Energy, Enviro't, & Econ
ECEN	3623	Math Found'n of EM & Photonics
ECEN	3723	Systems I
ECEN	3903	Intro to Semiconductor Devices
ECEN	3913	Solid State Elec Devices
ECEN	4133	Power Electronics
ECEN	4153	Power System Analysis and Design
ECEN	4213	Embedded Comp Systems Design
ECEN	4233	High Speed Computer Arithmetic
ECEN	4243	Computer Architecture
ECEN	4273	Software Engineering

OPTIONS

ECEN	4313	Linear Elect. Circuit Design
ECEN	4353	Communication Elec.
ECEN	4413	Automatic Control Systems
ECEN	4523	Communication Theory
ECEN	4533	Data Communications
ECEN	4613	Microwave Engineering
ECEN	4703	Active Filter Design
ECEN	4743	Intro Biomed Engr Model'g & Syst's
ECEN	4763	Intro to Digital Signal Processing
ECEN	4773	Real Time Digital Signal Processing
ECEN	4823	Design of Optical Systems
ECEN	4843	Design of Lasers & Systems
ECEN	4283	Computer Networks
ECEN	4303	Digital Integrated Circuit Design

TOTAL HOURS: 123

Accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

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This course plan is for general guidance only. An official course plan will be provided upon enrollment.

Contact | ceat.recruitment@okstate.edu | (405)-744-5279