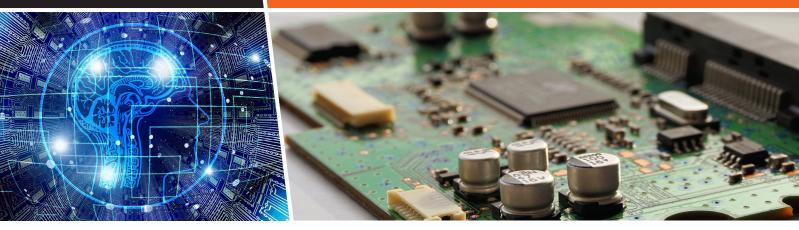


#### COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

# **COMPUTER ENGINEERING**



# WHAT IS COMPUTER ENGINEERING?

Computer Engineering encompasses a broad range of technologies that utilize digital devices for the benefit of society. Subdisciplines include digital electronics, VLSI chips, embedded controllers, networking, software development, memory and storage devices, cloud computing, internet-of-things, computer security, application-specific IC's, graphics processing units, and computer architecture.

# WHY COMPUTER 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

- VLSI and computer architecture engineering
- Software engineering
- Memory and storage engineering
- Networking and cybersecurity engineering
- Computer systems engineering
- Consulting, manufacturing, management, and marketing





COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

# BACHELOR OF SCIENCE COMPUTER 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**

CS	2133	Comp Science II
CS	2351	UNIX Prog
MATH	2153	Calculus II
POLS	1113	American Gov't
PHYS	2014	Gen Physics I
ECEN	3223	Digital Logic Des
XXXX	XXXX	"H" elective

### **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
CS	3653	Discrete Math
ENSC	3213	Comp Based Systems
ECEN	3714	Network Analysis
XXXX	XXXX	"S/I/D" Elective

## **THIRD YEAR**

#### **Fall Semester**

MATH	3013	Linear Algebra
ECEN	3613	EM Fields
ENGL	3323	Technical Writing
CS	4343	Data Structures
ECEN	3314	Electr Dev & Appl

#### **Spring Semester**

IEM	3503	Engr Economics
ECEN	3513	Signal Analysis
CS	4323	Op Systems
XXXX	XXXX	"H" Elective
XXXX	XXXX	"S/I/D" Elective

### **FOURTH YEAR**

#### **Fall Semester**

ECEN	4013	Design Engr Sys
ECEN	4503	Random Signals
ECEN	4303	Dig Elec Ckt Des
ECEN	4213	Emb Comp Sys
XXXX	XXXX	"H" Elective

#### **Spring Semester**

ECEN	4024	Capstone Design
ECEN	4243	Comp Arch
ECEN	XXXX	ECEN Area
XXXX	XXXX	Tech Elective

## ECEN AREA CLASS OPTIONS

ECEN	4233	High Speed Comp Arith
ECEN	4273	Software Engineering
ECEN	4283	Computer Networks

# ECEN TECHNICAL ELECTIVE OPTIONS

\*Any 3000 level or above from the following ECSC, ENGR, ECEN, BAE, MAE, CIVE, IEM, PHYS, MATH, CHEM, STAT, or CS

# **TOTAL HOURS: 124**

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



COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

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