

#### COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

# **MECHANICAL ENGINEERING**



## WHAT IS MECHANICAL ENGINEERING?

Mechanical Engineering is focused on a learning and research environment to instruct and encourage our students to reach their full potential in technical expertise, innovative expression and collaborative design.

## WHY MECHANICAL ENGINEERING AT OSU?

Students in Mechanical Engineering at OSU endure intensive academic programs and gain hands-on experience with exciting projects, preparing them for careers after graduation. Whether students are battling robots, working on cars or other capstone projects, they are able to take theories learned in the classroom and apply them to real-world situations.

## **HIGHLIGHTS**

- Undergraduate students in the Mechanical Engineering program at OSU participate in hands-on experiences with exciting projects, preparing them for careers after graduation. Students who participate in competition teams (Baja Car, Formula One Car, ChemE Car, Mercury Robotics, Speedfest), research projects or the required senior capstone project are able to use theories learned in a classroom setting and apply them to real world situations.
- Engineering design is integrated throughout the curriculum with a strong emphasis the junior and senior years.
- All mechanical engineering courses are taught by a faculty member, many with extensive research and industry experience.

## **CAREER INDUSTRIES & FOCUS AREAS**

#### **OPTIONS**

Dual degree option for mechanical and aerospace engineering.

#### **CAREER OPPORTUNITIES**

- Drilling Engineer
- Applications Engineer
- Design Engineer
- Field Engineer
- Mechanical Design Engineer
- R&D Engineer

- Plant Engineer
- Completions Engineer
- Reliability Engineer
- Product Engineer
- Facilities Engineer
- Production Engineer





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## BACHELOR OF SCIENCE MECHANICAL ENGINEERING Typical Four-Year Curriculum

## **FIRST YEAR**

#### **Fall Semester**

ENGR	1111	Intro to Engr
MATH	2144	Calculus I
CHEM	1414	Gen Chemistry I
ENGR	1332	Engr Design
ENGL	1113	Engl Comp I
XXXX	XXXX	"S/D H/I" Elective

#### **Spring Semester**

ENGR	1412	Engr Computer Prog
HIST	1103	American History
MATH	2153	Calculus II
PHYS	2014	Gen Physics I
ENGL	1213	Engl Comp II

#### **SECOND YEAR**

#### **Fall Semester**

ENSC	2113	Statics
ENSC	2213	Thermodynamics
MATH	2163	Calculus III
PHYS	2114	Gen Physics II
MATH	2233	Diff Equations

#### **Spring Semester**

ENSC	2123	Dynamics
ENSC	2143	Strength of Materials
ENSC	3233	Fluid Mechanics
ENSC	2613	Intro to Electrical Science
POLS	1113	American Gov't
XXXX	XXXX	"S/D H/I" Elective

## **THIRD YEAR**

#### **Fall Semester**

MAE	3013	Engr Analysis
ENSC	3313	Materials Science
IEM	3503	Engr Econ Analysis
MAE	3233	Heat Transfer
MAE	3524	Therm Fluid Design

#### **Spring Semester**

MAE	3113	Measurements & Instrumentations
MAE	3724	Systems Analysis
MAE	3403	Comp Methods
MAE	3323	Mech Design I

### **FOURTH YEAR**

#### **Fall Semester**

MAE	CAT I	Elective
MAE	XXXX	Elective
XXXX	XXXX	Tech Elective
XXXX	XXXX	"S/D H/I" Elective

#### **Spring Semester**

MAE	CAT II	Elective
MAE	XXXX	Elective
XXXX	XXXX	"S/D H/I" Elective
XXXX	XXXX	Basic Science

## **TOTAL HOURS: 121**

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

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

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