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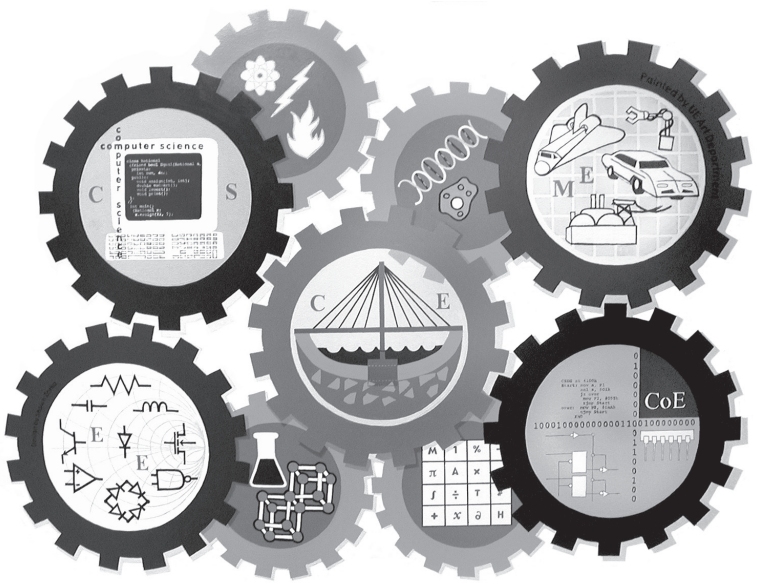

MECHANICAL ENGINEERING
GUIDEBOOK

University of Evansville

MECHANICAL ENGINEERING PROGRAM GUIDEBOOK 2024-25

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evansville.edu/mechanical

The Mechanical Engineering program at the University of Evansville (UE) is accredited by the Engineering Accreditation Commission (EAC) of ABET Inc., abet.org, telephone 410-347-7700.

Revised 2024

MECHANICAL ENGINEERING PROGRAM OVERVIEW AND OBJECTIVES

Mechanical engineering is one of the broadest fields of engineering, encompassing applications as diverse as automotive or aerospace vehicles, power generation, manufacturing processes, plastic and other petrochemical products, and even electronic hardware. The Mechanical Engineering curriculum provides a rigorous treatment of fundamental principles and the necessary background in mathematics and the basic sciences to prepare students. Through elective choices, students may investigate special areas of mechanical engineering.

In addition to strong technical skills, today's engineers in the global marketplace must be adept at working with other people who have very different professional backgrounds and who may be from other countries with different cultures. The University of Evansville is helping engineers meet that challenge by providing students with a strong liberal arts background and providing an opportunity for an international experience at Harlaxton, our study abroad center in England.

The mission of the Mechanical Engineering program is to provide a personalized educational experience for talented and motivated students who seek a Bachelor of Science in Mechanical Engineering degree. Our program objectives are:

Educational Objectives

1. Graduates shall be engaged in professional practice, continuing education, and/or other activities benefiting society.
2. Graduates shall have developed habits consistent with an attitude of professionalism, an awareness and appreciation for different cultures, and the understanding of engineering influence in a global context.

The Mechanical Engineering program is designed to provide our graduates with a firm grounding in basic science, engineering science, and engineering design that can serve as a basis for continued learning, either formally or informally. Our program strives to maintain a balance between a traditional approach to teaching engineering principles and incorporating current industrial practices. For example, computer-aided design and analysis, applications of automatic data acquisition, and concurrent engineering have all been incorporated into the curriculum.

A unique and exciting integrated design sequence is offered to all students. Students from all grade levels work together on practical real-life projects. Students apply design skills that they learn in their course work and throughout the integrated design sequence directly to meaningful projects. The goal is to teach both technical and non-technical skills through collaborative design-build-and-test projects. The design projects are progres-

sively more complex, culminating in the senior capstone design experience, Mechanical Engineering 495/497. There are many different types of projects including industry-sponsored projects, such as the SAE Mini Baja and Formula SAE cars that are entered into national and regional competitions, and undergraduate research projects.

The integrated design sequence consists of courses that offer specific skills that will be used in the team environment. The freshman course, Mechanical Engineering 197, provides skills in computer-aided modeling, sketching and product fabrication techniques. The sophomore course, Mechanical Engineering 297, provides instruction in basic computercontrolled machining techniques and further instruction in computeraided modeling. The junior course, Mechanical Engineering 397, provides skills in instrumentation and automatic data acquisition for measurements. The senior course, Mechanical Engineering 497, provides skills in project management.

The Mechanical Engineering curriculum is typical of most EAC-ABET accredited colleges and universities. What makes our program different and, we believe, better are the following points:

- Students have the opportunity to study abroad at Harlaxton in England and still complete their Mechanical Engineering degree in eight semesters.
- Class sizes are small, allowing close personal contact between students and professors and for design project opportunities.
- The faculty is dedicated to teaching, which gives the program great flexibility. Course content is kept up-to-date, and innovative instruction techniques, such as interdisciplinary team projects, cooperative learning, and concurrent engineering are used in the classroom.
- Emphasis is placed on preparing students to enter the practice of Mechanical Engineering upon graduation.
- A personalized co-op program, featuring alternating terms of paid, full-time professional employment and University attendance, is available.
- The University's size and diversity facilitates the ability of engineering students to interact with students and faculty in other programs, thus allowing intellectual and social interchange.
- Students are mentored to develop a love of learning and discovery that will motivate them to be lifelong learners.

HARLAXTON OPTION

Harlaxton is the study abroad center for the University of Evansville located in the rolling countryside of Grantham, England. Harlaxton is about a one-hour ride by train from London. Engineering students who choose to spend a semester studying at Harlaxton have easy access to England's culture, history, and entertainment.

Harlaxton is housed in a large Victorian manor where about 200 students and faculty live and hold classes. The Manor has a number of historic state rooms, a soccer field, sports hall, student lounges, bistro, and walking trails.

Engineering students who wish to study one semester in England are encouraged to do so during the first semester of their sophomore year. At Harlaxton, Engineering students typically take British Studies and general education classes. Harlaxton is on the semester system and all courses earn credit the same way they would if they were taken in Evansville. Since the Engineering program requires a number of general education classes, all classes taken at Harlaxton can count as required courses toward the Mechanical Engineering degree. Tuition at Harlaxton is the same as tuition at the Evansville campus, and all scholarships and loans may be applied to Harlaxton costs.

Students at Harlaxton are encouraged to travel on weekends. The college arranges eight to 10 weekend field trips to locations such as Nottingham, London, Scotland, and Wales. During some semesters, less frequent but longer trips are arranged to Ireland and the continent.

Harlaxton has its own resident British faculty as well as visiting faculty from the University of Evansville and other selected campuses in the United States. Likewise, students at Harlaxton come from the Evansville campus and various other campuses around the United States.

Harlaxton Costs

While the tuition at Harlaxton is the same as on the Evansville campus and all scholarships apply to Harlaxton, there are additional costs associated with travel. The typical airplane round trip is $1,500 and the typical student at Harlaxton will spend an additional $3,000-$4,000 on weekend trips, souvenirs, and other miscellaneous expenses.

CO-OP AND INTERN PROGRAMS

Mechanical Engineering majors are encouraged to participate in cooperative education (co-op program) or internships during their time at UE. In the co-op program, a student completes the BSME degree requirements in five years but at the end of that time the student has a BSME plus three or four terms of industrial experience as a mechanical engineer.

Internships are available to students who would like to gain engineering work experience without a long-term commitment. Internships are available as full-time jobs during the summer or as part-time jobs during the school year.

Co-op and Intern students normally get a higher salary offer upon graduation than their peers. In many cases the co-op employer provides a long-term employment opportunity for the co-op student upon graduation.

The typical Mechanical Engineering co-op student schedule is shown below. Other plans are possible, including concurrent co-ops where students take courses part-time while working.

CO-OP CALENDAR			
Year	**Fall**	**Spring**	**Summer**
1	School 1	School 2	Work option
2	School 3	School 4	Work 1
3	School 5	Work 2	School/Work option
4	Work 3	School 6	Work 4
5	School 7	School 8	

To enter the co-op program students should enroll in the co-op orientation course (EXED 090). During the spring of the sophomore year the typical co-op student interviews with prospective employers. The Center for Career Development takes care of contacting employers and arranging interviews for students. Actual placement in a co-op position is dependent on the outcome of the interview process.

The real value of the co-op and intern programs is the experience that they provide. A co-op job or internship can be a financial benefit, but the net income from one term at work does not typically cover the cost of one term in education. These programs give employers an opportunity to look at a student as a prospective employee without making a commitment to long term employment. Likewise, these programs give the student a chance to look at a company and gain some experience before entering the work force as a working professional.

Some of the companies who hire UE Mechanical Engineering co-op and internship students are listed here:

Accuride
Alcoa
Boeing
Bowen Engineering
Duke Power
Electronics Research Inc.
Fiat Chrysler
GE Aircraft Engines
George Koch Sons
General Electric
Kimball International
LexMark
NSWC Crane
Patriot Engineering
Professional Consultants Inc.
Sumitomo Electric Wiring Systems
Toyota
Vectren Energy Delivery

THREE-YEAR DEGREE PROGRAM

At UE, our three-year degree pathways allow you to graduate sooner without sacrificing on renowned, quality education. Each semester is complete with hands-on experiences and one-on-one faculty support.

Learn more about our optional three-year curriculum for Mechanical Engineering and our four-year option which includes a co-op.

The three-year degree pathway is best suited for students who will earn Calculus I credit before beginning their first fall semester in the Mechanical Engineering program.

Learn more about our optional three-year curriculum for **Mechanical Engineering**.

UNDERGRADUATE RESEARCH

Undergraduate research is an excellent way for students to acquire distinctive experience for their resume and a competitive edge when seeking employment or admission to graduate schools. There are numerous opportunities to conduct undergraduate research. Students are encouraged to participate in undergraduate research at some point during their four years at UE. Some undergraduate research opportunities are described below.

UExplore Undergraduate Research Program

The University's UExplore Undergraduate Research program is an opportunity for students to perform undergraduate research with faculty in a collegial relationship. Students may work on research topics of their own interest or work on faculty-defined projects. Students may also receive a $3,500 fellowship and board for summer research.

NSF Sponsored Research Experience for Undergraduates (REU)

This program is sponsored by the National Science Foundation. It allows undergraduates to participate in research projects at major research institutions across the country. Participating students typically have a B+ or better GPA and have achieved junior status. Most research experiences provide a stipend (about $2,000 to $3,000 for 10 weeks) and some provide a housing or moving allowance. All REUs take place during the summer. For more information see the website at nsf.gov/crssprgm/reu/index.jsp.

Special Topics and Independent Study

Students can enroll in ME 498 or ME 499 with the permission of a faculty member willing to sponsor their independent research project. Students can earn one to three hours for credit for such study.

Recent Mechanical Engineering projects include building a novel flaring device for hydrocarbon processing applications, understanding water-spray-driven air-flow-patterns for nuclear reactor containment, measuring the lift on model dragonfly wings in a wind tunnel, building a wheelchair simulator, and developing a new steam sensor.

DEGREE REQUIREMENTS

Studies in Mechanical Engineering can be classified in three very broad areas: machine design, thermo-fluids, and biomedical. The machine design area is generally thought of as "how big to make it so it does not fail." Machine design also includes displacement and vibration analysis, manufacturing, sound, and advanced material behavior. The thermo-fluids area involves energy conversion and efficiency as well as fields of study in power plant design, turbomachinery, heat transfer, and internal combustion engines.

The Bachelor of Science in Mechanical Engineering requires at least 127 hours of course work distributed as follows:

Enduring Foundations General Education (43 hours)
Including FYS112, Chemistry 118; Mathematics 221; Mechanical Engineering 495; Physics 210; and the foreign language proficiency requirement. For additional departmental general education requirements, please consult the department.

Required Courses (69 hours)
Mathematics 222, 323, 324; Physics 211; Engineering 212, 213, 232, 366, 390; Electrical Engineering 210, 215; Mechanical Engineering 101/102, 197, 297, 330*, 344, 345, 360*, 362, 368, 397, 452, 495†, 497.

Electives (15 hours)
One of the available Machine Design Electives:
ME 414, ME 424, ME 432, ME 434, ME 446, ME 448, ME 453, or ME 499

One of the available Thermo-Fluids Electives:
ME 462, ME 463, ME 466, ME 468, ME 470, ME 472, ME 473, ME 476, or ME 499

Nine hours of available STEM Technical Electives from Mechanical Engineering, Civil Engineering, Computer Science, Electrical Engineering, Engineering, Mathematics, Physics, Biology, Chemistry, or Interdisciplinary 380 (with STEM focus).

Note: Mathematics 202 or lower, Physics 1xx, Chemistry 10x, and software language courses may not be applied to the 15 hour requirement.

*Meets Writing Across the Curriculum requirement (overlay E).
†Meets Enduring Foundations capstone requirement (outcome 11).

Bachelor of Science in Mechanical Engineering

FALL			SPRING		
		FRESHMAN			
MATH 221	Calculus I	4	MATH 222	Calculus II	4
CHEM 118	Principles of Chemistry	4	PHYS 210	Calculus Physics I	4
ME 101	Intro. to Mech. Engineering	3	ME 197	Integrated Design I	2
				General Education	3
FYS 112	First Year Seminar	3		General Education	3
	General Education (or Foreign Language 111*)	3		(or Foreign Language 112*)	16
		17			
		SOPHOMORE			
MATH 323	Calculus III	4	MATH 324	Diff. Equations	3
PHYS 211	Calculus Physics II	4	EE 215	Circuits II	3
EE 210	Circuits	3	ENGR 213	Dynamics	3
ENGR 212	Statics	3	ENGR 232	Mechanics of Materials	3
EXED 090	Bldg. Your Professional Image	0	ME 297	Integrated Design II	2
				Health and Wellness	1
	General Education	3			15
		17			
		JUNIOR			
ENGR 390	Applied Engineering Mathematics	3	ENGR 366	Fluid Mechanics	3
			ME 345	Computer Aided Mechanical Design	3
ME 330	Materials Laboratory	2			
ME 344	Design of Machine Elements	3	ME 360	Thermo-Fluid Lab	2
			ME 397	Integrated Design III	3
ME 362	Thermodynamics	4		General Education	3
	General Education	3			14
		15			
		SENIOR			
ME 368	Heat Transfer	3	ME 497	Professional Practice II	3
ME 452	System Modeling and Control	3	ME 4xx	Elective	3
				Technical Elective	3
ME 495	Professional Practice I	3		Technical Elective	3
ME 4xx	Elective	3		General Education*	3
	Technical Elective	3			12/15
	General Education*	3			
		15/18			

*Note: Only if necessary to meet the University foreign language requirement.

Harlaxton Option Plan of Study

FALL			SPRING		
		FRESHMAN			
MATH 221	Calculus I	4	MATH 222	Calculus II	4
CHEM 118	Principles of Chemistry	4	PHYS 210	Calculus Physics I	4
ME 101	Introduction to Mechanical Engineering	3	ENGR 212	Statics	3
			ME 197	Integrated Design I	2
FYS 112	First-Year Seminar	3		General Education	3
	General Education	3		(or Foreign Language 112*)	
	(or Foreign Language 111*)				16
		17			
		SOPHOMORE			
ID H282/283	The British Experience	6	MATH 324	Diff. Equations	3
MATH 323	Calculus III	4	ENGR 213	Dynamics	3
	General Education	3	ENGR 232	Mechanics of Materials	3
	General Education*	3	ENGR 390	Applied Engineering Mathematics	3
		16	ME 297	Integrated Design II	2
			EXED 090	Building Your Professional Image	0
				Health and Wellness	1
				General Education	3
					18
		JUNIOR			
PHYS 211	Calculus Physics II	4	EE 215	Circuits II	3
EE 210	Circuits	3	ENGR 366	Fluid Mechanics	3
ME 330	Materials Laboratory	2	ME 345	Computer Aided Mechanical Design	3
ME 344	Design of Machine Elements	3	ME 360	Thermo-Fluid Lab	2
ME 362	Thermodynamics	4	ME 397	Integrated Design III	3
		16		General Education	3
					17
		SENIOR			
ME 368	Heat Transfer	3	ME 497	Professional Practice II	3
ME 452	System Modeling and Control	3	ME 4xx	Elective	3
				Technical Elective	3
ME 495	Professional Practice I	3		Technical Elective	3
ME 4xx	Elective	3		General Education*	3
	Technical Elective	3			12/15
		15			

*Note: Only if necessary to meet the University foreign language requirement.

Engineering Management Minor

A minor in Engineering Management is offered by the College of Business and Engineering in cooperation with the Schroeder Family School of Business Administration. With careful curriculum planning, Mechanical Engineering students can earn an Engineering Management minor by taking one additional course. The note in parenthesis following each course shows where the course might fit into the BSME curriculum plan.

Engineering Management Minor *(18 hours)*

ECON 101	Principles of Macroeconomics (general education, outcome 9)
or	
ECON 102	Principles of Microeconomics (general education, outcome 9)
ENGR 390	Applied Engineering Mathematics (required)
ENGR 409	Engineering Economy and Decision Making (technical elective)
COMM 380	Intercultural Communication (general education, outcome 9)
or	
BUS 100	Introduction to Business (general education, overlay E)
MGT 331	International Business Strategy (additional course)
or	
MGT 377	Organizational Behavior (additional course)
LSCM 315	Introduction to Logistics and Supply Chain Management (additional course)
or	
CE 224	Construction Management (technical elective)

Mathematics Minor

A minor in Mathematics is offered by the College of Arts and Sciences. With careful curriculum planning, Mechanical Engineering students can earn a Mathematics minor with no extra courses. The note in parenthesis following each course shows where the course might fit into the BSME curriculum plan.

Mathematics Minor *(20 hours)*

ENGR 390	Applied Engineering Mathematics (required)
MATH 221	Calculus I (required)
MATH 222	Calculus II (required)
MATH 323	Calculus III (required)
MATH 324	Differential Equations (required)
MATH 3xx	300- or 400-level course in Mathematics or Physics 305 (technical elective)

Chemistry Minor

A minor in Chemistry is offered by the College of Arts and Sciences. With careful curriculum planning, Mechanical Engineering students can earn a Chemistry minor with no additional classes. The note in parenthesis following each course shows where the course might fit into the BSME curriculum plan.

Chemistry Minor *(20 hours)*

CHEM 118	Principles of Chemistry (required)
CHEM 240	Organic Chemistry I (PHYS 211 substitute)
CHEM 280	Inorganic Chemistry I (technical elective)
CHEM 360	Quantitative Analysis (technical elective)

One of the following *(technical elective)*

CHEM 341	Organic Chemistry II
CHEM 351	Physical Chemistry I
CHEM 370	Biochemistry I and CHEM 371 Biochemistry Lab I

Computer Science Minor

A minor in Computer Science is offered by the School of Engineering and Computer Science. With careful curriculum planning, Mechanical Engineering students can earn a Computer Science minor by taking four additional courses.

Computer Science Minor *(21 hours, includes 9 hours technical elective credit)*

ENGR 123	Programming for Engineers
or	
CS210	Fundamentals of Programming I
CS220	Logic Design and Machine Organization
or	
EE 254	Logic Design
CS 215	Fundamentals of Programming II
CS 290	Object Oriented Design

Plus 9 hours of 300 or 400 level CS courses

Biomedical Option

A Biomedical option is available to students in the Mechanical Engineering program. With careful curriculum planning, Mechanical Engineering students can complete the Biomedical option with no additional courses. The note in parenthesis following each course shows where the course might fit into the BSME curriculum plan.

Biomedical Option *(21 hours)*

EXSS 112	Human Anatomy and Physiology I (technical elective)
EXSS 113	Human Anatomy and Physiology II (technical elective)
ME 424	Engineering Biomechanics (preferred) or EXSS 356 Biomechanics (ME 4xx elective)
CHEM 240	Organic Chemistry 1 (ME 4xx elective)
BIOL 107	General Biology (instead of PHYS211)
ME 497	(with approved biomedical focused project) or ME 497 plus an approved biomedical focused project (at least on credit) or Internship/Co-op in a Biomedical or health-related setting (at least 10 weeks) plus ME 497

One of the following *(technical elective)*

ME 428	Special Topics in Biomedical Engineering
BIOL 305	Microbial Ecology
BIOL 322	Biological Physics
CHEM 370	Biochemistry

Energy Engineering Certificate

A certificate in Energy Engineering is available to students in the Mechanical Engineering program. With careful curriculum planning including an approved energy-focused project or co-op, Mechanical Engineering students can earn an Energy Engineering certificate with no extra classes. The note in parenthesis following each course shows where the course might fit into the BSME curriculum plan.

Energy Engineering Certificate *(12 hours or equivalent)*

EE 430	Energy Conversion Systems (technical elective)

Any three of the following:

CE 374	Environmental Engineering (technical elective)
EE 330	Introduction to Power Systems (technical elective)
ME 463	Principles of Turbomachinery (ME 4xx ThermoScience or technical elective)
ME 470	Combustion (ME 4xx ThermoScience or technical elective)
ME 472	Energy Systems (ME 4xx ThermoScience or technical elective))
ME 476	Power Plant Engineering (ME 4xx ThermoScience or technical elective)
CE 497 or EE 497 or ME 497	(with an approved energy-focused project)
or	
COOP 91 - 95 or EXED 71 - 73	(with an approved energy-focused employer)

HONORS PROGRAM – MECHANICAL ENGINEERING

The Honors Program is open to selected Mechanical Engineering majors on entrance to the University. Admittance to the Honors Program is determined by the University Honors Committee on the basis of standardized test scores, an essay, and other student work completed in high school. The Honors Program provides participants with the opportunity to interact with other Honors Program students both socially and academically. Special honors courses and other academic events are available for honors students both in general education and in the major. Honors students have special library privileges and are able to register early.

1. Honors students must have a grade point average of 3.5 or better at the time of graduation.
2. To complete the program, honors students must acquire a total of at least 21 points in the Honors Program made up of the following:

   Coursework (required; 15 points)

   Honors Courses (generally three points each). Honors courses offered on a regular basis include First-Year Seminar 112, various courses that fulfill the general education requirements, and honors courses in other departments which are not part of the general education requirements.

   Honors Colloquia (generally one point each). Honors colloquia are offered on a variety of topics and include small group discussion of a book, a research topic, or a topic of current interest.

   Major Courses (generally three points each). These are courses within the major which are given a section designation of H.

   Honors Project and Research (required; three points)

   Senior Honors Project. In Mechanical Engineering this requirement is satisfied by the Mechanical Engineering 495/497 senior project sequence. This is a year-long sequence in which Mechanical Engineering students write a proposal, complete a design and construct a project. The honors project in Mechanical Engineering is more challenging and has a significant design and/or research component.

   Study Abroad (optional; points vary)

   Study at Harlaxton during the fall or spring semester earns two points. Completion of a Harlaxton summer semester earns one point. Students studying abroad in other locations can obtain points based on the length of stay and honors learning experience.
3. Students must participate in the Honors Program each semester.

STUDENT ORGANIZATIONS

American Society of Heating, Refrigerating, and Air-Conditioning Engineers

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) was founded in 1894 and is a global society advancing human well-being through sustainable technology built for the environment. The mission of ASHRAE is to advance the arts and sciences of heating, ventilation, air conditioning, and refrigeration to serve humanity and promote a sustainable world. Student members have opportunities to learn from and interact with the local professional section of ASHRAE. This organization is open to all disciplines and encourages students to explore green energy and focus on creating and implementing sustainable and efficient designs.

American Society of Mechanical Engineers

The American Society of Mechanical Engineers (ASME) was founded in 1880 as an educational and technical society. Today it is the largest and most prestigious Mechanical Engineering society in the world with over 115,000 members. As a member of the student section of ASME at the University of Evansville, Mechanical Engineering students have the opportunity to participate in a wide variety of activities and services of this national organization. Upon graduation student members are eligible to upgrade their membership status to associate member and gain additional benefits.

The local student organization participates in a variety of social and technical activities.

- Local section meetings
- Industrial tours
- Attend and participate in regional and national ASME meetings
- Network with guest speakers from business and industry
- Gain leadership skills as an officer in the local section
- Scholarship opportunities for upperclassmen

Society of Women Engineers

The Society of Women Engineers (SWE) is a national organization with student sections on each engineering campus. The section is an interdisciplinary organization with membership cutting across all the engineering disciplines and is also open to men who are interested in the mission and activities of the group.

The mission of SWE is to encourage women to achieve full potential in careers as engineers and leaders, to expand the image of the engineering profession as a positive force in improving the quality of life, and to demonstrate the value of diversity.

Society of Automotive Engineers

The Society of Automotive Engineers (SAE) was founded in 1905. SAE is a nonprofit educational and scientific organization dedicated to advancing mobility technology to better serve humanity. Nearly 70,000 engineers and scientists, who are SAE members, develop technical information on all forms of self-propelled vehicles including automobiles, trucks and buses, off-highway equipment, aircraft, aerospace vehicles, marine, rail, and transit systems.

Mechanical Engineering students at UE have been involved in the Baja SAE competition. The goal of Baja SAE is for students to design, build, and test a small ATV racer that uses a 10 horsepower Briggs and Stratton engine. Approximately 100 engineering schools across North America, South America, and Asia compete in this activity.

ΠΤΣ Pi Tau Sigma

Pi Tau Sigma is the national honorary fraternity for mechanical engineers. The fraternity was founded at the University of Illinois in 1915. The University of Evansville Phi Rho chapter was founded in 1986.

The primary purpose of Pi Tau Sigma is to recognize those Mechanical Engineering students whose academic achievements, character, and attitude place them at the head of their class. Membership in Pi Tau Sigma is by invitation based on election by the active members of the chapter. To be eligible for consideration, a junior must rank in the upper 25 percent of the class and a senior must rank in the upper 35 percent of the class. Initiation into the UE chapter, with a one-time payment of national dues, makes one a lifetime member of Pi Tau Sigma.

Pi Tau Sigma activities emphasize scholarship and service. Members have served as tutors and often serve as guides and laboratory assistants for special events such as Engineering Open House. Pi Tau Sigma often co-sponsors activities such as tours and speakers with ASME.

MECHANICAL ENGINEERING COURSES

For course descriptions, visit evansville.edu/mechanical and select Course Offerings under the About Our Program menu.

ME 101/102	Introduction to Mechanical Engineering
ME 197	Integrated Design I
ME 297	Integrated Design II
ME 330	Materials Laboratory
ME 344	Design of Machine Elements
ME 345	Computer Aided Mechanical Design
ME 360	Thermo/Fluid Dynamics Laboratory
ME 362	Thermodynamics
ME 368	Heat Transfer
ME 397	Integrated Design III
ME 414	Vehicle Dynamics
ME 424	Engineering Biomechanics
ME 428	Special Topics in Biomedical Engineering
ME 432	Advanced Mechanics of Materials
ME 434	Fracture Mechanics
ME 446	Finite Elements
ME 448	Mechanical Vibrations
ME 452	System Modeling and Control
ME 453	Mechatronics
ME 462	Advanced Thermodynamics
ME 463	Principles of Turbomachinery
ME 465	Internal Combustion Engines
ME 466	Computational Fluid Dynamics
ME 468	Advanced Heat Transfer
ME 470	Combustion
ME 472	Energy Systems
ME 473	Heating, Ventilating, and Air Conditioning
ME 476	Power Plant Engineering
ME 495	Professional Practice I
ME 497	Professional Practice II
ME 498	Independent Study in Mechanical Engineering
ME 499	Special Topics in Mechanical Engineering

ENGR 212	Statics
ENGR 213	Dynamics
ENGR 230	Materials Science
ENGR 232	Mechanics of Materials
ENGR 352	Numerical Methods for Engineers
ENGR 366	Fluid Mechanics
ENGR 390	Applied Engineering Mathematics
ENGR 409	Engineering Economy and Decision Making

Not all courses are offered each term.

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