### Bachelor of Science
**MECHANICAL ENGINEERING**
Degree Map | 2020-2021

**YOUR CLASS SCHEDULE**

**Freshman**
- Focus on General Education, Math, and Science courses
- Enroll in 16 and 17 credit hours in Fall and Spring semesters, respectively

**Sophomore**
- Complete basic math and science courses
- Start core engineering courses
- Enroll in 17 and 15 credit hours in Fall and Spring semesters, respectively

**Junior**
- Complete core engineering courses
- Complete industrial track courses
- Enroll in 14 and 15 credit hours in Fall and Spring semesters, respectively

**ACADEMIC ADVISING**

**Freshman**
- Participate in New Student Orientation
- Meet with your Academic Advising Center Freshman Advisor before registration
- Ask you Advisor about the recommended course sequencing for your degree plan

**Sophomore**
- Meet with your Academic Advising Center Freshman Advisor before registration
- Verify course sequencing with your academic advisor

**Junior**
- Meet with your engineering academic advisor before registration
- Verify course sequencing with your engineering academic advisor
- Finalize course selections for spring graduation

**ENRICHING EXPERIENCES**

**Freshman**
- Prioritize Your Wellness
- Participate in New Student Orientation
- Attend Financial Literacy seminars
- Form healthy study habits

**Sophomore**
- Prioritize Your Wellness
- Attend a health fair
- Build Your Community
- Run for organization officer role
- Apply to be a Falcon Ambassador

**Junior**
- Prioritize Your Wellness
- Attend financial literacy seminars
- Build Your Community
- Attend your ring ceremony
- Join Alumni Association upon graduation
- Explore Your World
- Consider study abroad (summer prior to senior year)

**LIFELONG SUCCESS**

**Freshman**
- Build Your Brand
- Draft your resume
- Register for the Job Board
- Seek freshman research opportunities

**Sophomore**
- Build Your Brand
- Update your resume
- Join LinkedIn
- Consider student employment

**Junior**
- Build Your Brand
- Update your resume
- Attend workshops on job hunting and interviewing
- Conduct research with faculty

**Senior**
- Build Your Brand
- Update your resume
- Prepare for the Fundamentals of Engineering Examination in the spring semester
- Attend career fairs

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**UTPB students will graduate with these skills:**
- Leadership
- Problem-solving
- Communication
- Engineering Design
- Social Responsibility
- Confidence
- Global Awareness
- Teamwork
- Critical Thinking

**Career opportunities:**
- Design Engineer
- Technical Sales
- Project Manager
- Manufacturing
- HVAC Design
- Process Control
# Bachelor of Science in Mechanical Engineering Requirements

## Semester 1
- **ENGL 1301** English Composition I
- **HIST 1301** U.S. History to 1877
- **MATH 2413** Calculus I
- **CHEM 1311** General Chemistry I
- **CHEM 1111** General Chemistry I lab
- **ENGR 1204** Engineering Graphics

16 hours

## Semester 2
- **ENGL 1302** English Composition II
- **HIST 1302** U.S. History Since 1877
- **COMM 1315** Introduction to Public Speaking
- **MATH 2414** Calculus II
- **PHYS 2325** University Physics I
- **PHYS 2125** University Physics I Lab

17 hours

## Semester 3
- **PLSC 2305** American National Politics
- **Creative Arts Course**
- **MATH 2415** Calculus III
- **PHYS 2326** University Physics II
- **PHYS 2126** University Physics II Lab
- **ENGR 2301** Engr. Mechanics: Statics

17 hours

## Semester 4
- **MATH 3301** Introduction to Probability I
- **MATH 3320** Differential Equations
- **ENGR 3303** Introduction to Materials Science
- **ENGR 2302** Engr. Mechanics: Dynamics
- **ENGR 2305** Fund. of Circuit Analysis

15 hours

## Semester 5
- **ENGR 3332** Mechanics of Materials
- **ENGR 3375** Intro. to Thermodynamics
- **ENGR 3354** Intro. to Fluid Mechanics
- **ENGR 3390** Engineering Programming
- **MENG 3206** Mechanical Engr. Lab I
- **MATH 3310** Linear Algebra

17 hours

## Semester 6
- **MENG 3348** Comp.-Aided ME Design
- **MENG 3351** Heat Transfer
- **MENG 3356** Fluid Mechanics II
- **MENG 3364** Mechanical Design I
- **MENG 3376** Thermodynamics II

15 hours

## Semester 7
- **MENG 3324** Manufacturing Processes
- **MENG 4205** T/F and Mech. Sys. Lab
- **MENG 43XX** Technical Elective
- **Social and Behavioral Science Course**

14 hours

## Semester 8
- **ENGR 3326** Engineering Economics
- **MENG 4206** ME Laboratory II
- **MENG 4478** Senior Design
- **PLSC 2306** State and Local Politics

15 hours