# MECHANICAL ENGR. (PETROLEUM)

## FIRST YEAR

### FALL SEMESTER

<table>
<thead>
<tr>
<th>GE B</th>
<th>AME 101L</th>
<th>MATH 125 (GE F)</th>
<th>CHEM 105aL or MASC 110L</th>
<th>ENGR 102</th>
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### SPRING SEMESTER

<table>
<thead>
<tr>
<th>WRIT 150</th>
<th>GE A</th>
<th>MATH 126 or MATH 129</th>
<th>PHYS 151L (GE E)</th>
<th>ITP 168</th>
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## SECOND YEAR

### FALL SEMESTER

<table>
<thead>
<tr>
<th>GE C</th>
<th>AME 201</th>
<th>MATH 125</th>
<th>PHYS 152L</th>
<th>OPTIONAL ELECTIVE</th>
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### SPRING SEMESTER

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<thead>
<tr>
<th>GE B</th>
<th>AME 204</th>
<th>MATH 245</th>
<th>PHYS 153L</th>
<th>AME 310</th>
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## THIRD YEAR

### FALL SEMESTER

<table>
<thead>
<tr>
<th>WRIT 340</th>
<th>AME 301</th>
<th>PTE 463</th>
<th>MASC 310</th>
<th>AME 341aL</th>
<th>OPTIONAL ELECTIVE</th>
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### SPRING SEMESTER

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<thead>
<tr>
<th>AME 302</th>
<th>AME 308</th>
<th>AME 309</th>
<th>PTE 464</th>
<th>AME 341bL</th>
<th>OPTIONAL ELECTIVE</th>
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## FOURTH YEAR

### FALL SEMESTER

<table>
<thead>
<tr>
<th>GE C</th>
<th>PTE 461</th>
<th>PTE 465</th>
<th>AME 408</th>
<th>AME 441aL</th>
<th>OPTIONAL ELECTIVE</th>
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### SPRING SEMESTER

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<tr>
<th>GE D</th>
<th>AME 331</th>
<th>AME 409</th>
<th>TECHNICAL ELECTIVE</th>
<th>OPTIONAL ELECTIVE</th>
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### MATHEMATICS (16 UNITS)

- **MATH 125**: Calculus I
- **MATH 126 OR 129**: Calculus II
- **MATH 226 OR 229**: Calculus III
- **MATH 245**: Mathematics of Phys. and Engr.

### PHYSICS (12 UNITS)

- **PHYS 151L**: Mechanics and Thermodynamics
- **PHYS 152L**: Electricity and Magnetism
- **PHYS 153L**: Optics and Modern Physics

### CHEMISTRY / MATERIALS SCIENCE (4 UNITS)

- **CHEM 105AL**: General Chemistry
- **OR MASC 110L**: Materials Science

### GENERAL EDUCATION (32 UNITS)

- **GE A**: The Arts (1 Course)
- **GE B**: Humanistic Inquiry (2 Courses)
- **GE C**: Social Analysis (2 Courses)
- **GE D**: Life Sciences (1 Course)
- **GE E**: Physical Sciences (1 Course)
- **GE F**: Quantitative Reasoning (1 Course)
- **GE G,H**: Global Perspectives (2 Courses)
- **GESM**: General Education Seminar (1 Course)

### WRITING (7 UNITS)

- **WRIT 150**: Writing and Critical Reasoning
- **WRIT 340**: Advanced Writing

### ENGINEERING (66 UNITS-67)

- **AME 101L**: Intro. to Mech. Engr. & Graphics
- **AME 201**: Statics
- **AME 204**: Strength of Materials
- **AME 301**: Dynamics
- **AME 302**: Dynamic Systems
- **AME 308**: Comp.-Aided Analysis for Design
- **AME 309**: Fluid Dynamics
- **AME 310**: Engineering Thermodynamics I
- **AME 331**: Heat Transfer
- **AME 341AL**: Mechoptronics Laboratory I
- **AME 341BL**: Mechoptronics Laboratory II
- **AME 408**: Comp.-Aided Design of Mech Systems
- **AME 409**: Senior Design Project
- **AME 441AL**: Senior Projects Laboratory
- **ENGR 102**: Engineering Freshman Academy
- **ITP 168**: Introduction to MATLAB
- **PTE 461**: Formation Evaluation
- **PTE 463L**: Intro. to Transport Processing Porous Media
- **PTE 464L**: Petroleum Reservoir Engineering
- **PTE 465L**: Drilling Technology
- **MASC 310**: Mechanical Behavior of Materials

### TECHNICAL ELECTIVE

- Any upper-division course in engineering, Chemistry, Physics, and Mathematics. See major advisor for exceptions/substitutions.

### SPECIAL NOTES

Courses with the AP/IB symbol may be satisfied with AP, IB or A-Level exams. See page 17 for more information.

**GE**: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by exam. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 21 for more information and consult your advisor for detailed assistance.

**OPTIONAL ELECTIVES**: Consult with your academic advisor to explore optional elective courses. These courses are not required.

**TECHNICAL ELECTIVES**: Any upper-division course in engineering, Chemistry, Physics, and Mathematics. See major advisor for exceptions/substitutions.