



Bachelor of Science in Mechanical Engineering (MENG)

First Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|----------------------------------|---------|-----------------------------|--------------|
| CHEM200 | General Chemistry | 3 | ENGL101 - CHEM160 | |
| MATH225 | Linear Algebra with Applications | 3 | ENGL051 - MATH161 | |
| MENG225 | Engineering Drawing & CAD | 3 | | |
| PHYS220 | Physics for Engineers | 3 | PHYS161 - ENGL101 - PHYS160 | MATH210 |
| ENGL201 | Composition and Research Skills | 3 | ENGL151 | |
| MATH210 | Calculus II | 3 | MATH161 - MATH160 | |
| Total | | 18 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|---------------------------------|---------|---|--------------------|
| MENG250 | Statics | 3 | ENGL051 | MATH210 |
| EENG250 | Electric Circuits I | 3 | PHYS161 - PHYS160 - MATH161 - MATH160 - ENGL051 | MATH210 |
| ENGL251 | Communication Skills | 3 | ENGL201 | |
| CSCI250 | Introduction to Programming | 3 | | ENGL101 - CSCI250L |
| CSCI250L | Introduction to Programming Lab | 1 | | ENGL101 - CSCI250 |
| MATH220 | Calculus III | 3 | MATH210 | |
| MATH270 | Ordinary Differential Equations | 3 | MATH210 | MATH225 |
| Total | | 19 | | |

Second Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|---|---------|-----------------------------|--------------------|
| MENG320L | Engineering Thermodynamics I Lab | 1 | | CHEM200 - MENG320 |
| MENG300 | Dynamics | 3 | ENGL051 - ENGL101 - MENG250 | PHYS220 - MATH220 |
| MENG310 | Engineering Material Science | 3 | MENG250 | CHEM200 |
| MENG320 | Engineering Thermodynamics I | 3 | MENG250 | CHEM200 - MENG320L |
| MATH310 | Probability & Statistics for Scientists & Engineers | 3 | MATH210 - ENGL201 | |
| ENGG300 | Engineering Economics | 3 | ENGL201 - MATH225 - MATH220 | |
| CULT200 | Introduction to Arab - Islamic Civilization | 3 | | |
| Total | | 19 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|--|---------|-----------------------------|--------------------|
| EENG370 | Industrial Electronics | 3 | EENG250 | EENG370L |
| EENG370L | Industrial Electronics Lab | 1 | | EENG370 |
| MENG360 | Mechanics of Materials I | 3 | MENG310 | MENG360L |
| MENG370 | Fluid Mechanics I | 3 | MENG300 | MATH375 - MENG370L |
| MATH375 | Numerical Methods for Scientists & Engineers | 3 | ENGL051 - MATH270 - MATH225 | |
| MENG370L | Fluid Mechanics I Lab | 1 | MENG300 | MENG370 |
| MENG360L | Mechanics Of Materials I Lab | 1 | MENG310 | MENG360 |

| | Elective | 3 | | |
|------------------------|--|---------|---|------------------------------|
| Total | | 18 | | |
| Third Year | | | | |
| Fall Semester | | | | |
| Code | Title | Credits | Prerequisites | Corequisites |
| MENG420 | Heat Transfer | 3 | MENG370 - MENG320 | MENG420L |
| MENG420L | Heat Transfer Lab | 1 | MENG320 | MENG420 |
| MENG430 | Mechanical Vibrations I | 3 | MENG300 - MATH270 | MENG410 - MATH310 - MENG430L |
| MENG410 | Mechanics of Materials II | 3 | MENG360 | |
| ARAB200 | Arabic Language and Literature | 3 | | |
| MENG430L | Mechanical Vibrations I Lab | 1 | CSCI250 | MENG430 |
| EENG435 | Control Systems | 3 | EENG370 | |
| Total | | 17 | | |
| Spring Semester | | | | |
| Code | Title | Credits | Prerequisites | Corequisites |
| MENG495 | Senior Project | 3 | ENGL251 - MENG430 - MENG420 - MENG410 - MENG225 | |
| EENG492 | Electric Machines For Mechanical Engineers | 3 | EENG370 | MENG430 - EENG492L |
| EENG492L | Electric Machines For Mechanical Engineers Lab | 1 | | EENG492 |
| ENGG450 | Engineering Ethics and Professional Practice | 3 | ENGL251 | ENGG300 |
| MENG450L | Mechanical Systems I Lab | 1 | MENG300 - MENG225 | MENG450 |
| MENG470 | Internal Combustion Engines | 3 | MENG420 | |
| MENG450 | Mechanical Systems I | 3 | MENG300 | MENG430 - MENG450L |
| Total | | 17 | | |