



L E B A N E S E
I N T E R N A T I O N A L
U N I V E R S I T Y

Major Title: Bachelor of Engineering in Mechanical Engineering
Major Code: BEMENG
Level: underGraduate
Number Of Credits: 150
Date: 10-08-2022

Bachelor of Engineering in Mechanical Engineering (BEMENG)

First Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|----------------------------------|-----------|-----------------|--------------|
| CHEM200 | General Chemistry | 3 | ENGL101-CHEM160 | |
| MATH210 | Calculus II | 3 | MATH161-MATH160 | |
| MATH225 | Linear Algebra with Applications | 3 | ENGL051-MATH161 | |
| MENG225 | Engineering Drawing & CAD | 3 | | |
| ENGL201 | Composition and Research Skills | 3 | ENGL151 | |
| Total | | 15 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|---------------------------------|-----------|---|--------------|
| MENG250 | Statics | 3 | MATH161-MATH160-PHYS161-PHYS160-ENGL051 | MATH210 |
| MATH270 | Ordinary Differential Equations | 3 | MATH210 | MATH225 |
| ENGL251 | Communication Skills | 3 | ENGL201 | |
| EENG250 | Electric Circuits I | 3 | PHYS161-PHYS160-MATH161-MATH160-ENGL051 | MATH210 |
| MATH220 | Calculus III | 3 | MATH210 | |
| Total | | 15 | | |

Summer Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|---------------------------------|----------|-------------------------|------------------|
| PHYS220 | Physics for Engineers | 3 | PHYS161-ENGL101-PHYS160 | MATH210 |
| CSCI250 | Introduction to Programming | 3 | | ENGL101-CSCI250L |
| CSCI250L | Introduction to Programming Lab | 1 | | ENGL101-CSCI250 |
| Total | | 7 | | |

Second Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|---|---------|-----------------|------------------|
| MATH310 | Probability & Statistics for Scientists & Engineers | 3 | MATH210-ENGL201 | |
| MENG320L | Engineering Thermodynamics I Lab | 1 | | CHEM200-MENG320 |
| MENG320 | Engineering Thermodynamics I | 3 | MENG250 | CHEM200-MENG320L |
| MENG310 | Engineering Material Science | 3 | MENG250 | CHEM200 |

| | | | | |
|--------------|-----------------------|-----------|-------------------------|-----------------|
| MENG300 | Dynamics | 3 | ENGL051-ENGL101-MENG250 | PHYS220-MATH220 |
| ENGG300 | Engineering Economics | 3 | ENGL201-MATH225-MATH220 | |
| Total | | 16 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|--|-----------|-------------------------|------------------|
| EENG370L | Industrial Electronics Lab | 1 | | EENG370 |
| MENG370L | Fluid Mechanics I Lab | 1 | MENG300 | MENG370 |
| MENG370 | Fluid Mechanics I | 3 | MENG300 | MATH375-MENG370L |
| MENG360L | Mechanics Of Materials I Lab | 1 | MENG310 | MENG360 |
| MENG360 | Mechanics of Materials I | 3 | MENG310 | MENG360L |
| MATH375 | Numerical Methods for Scientists & Engineers | 3 | ENGL051-MATH270-MATH225 | |
| EENG370 | Industrial Electronics | 3 | EENG250 | EENG370L |
| Total | | 15 | | |

Summer Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|--------------------------------|----------|---------------|--------------|
| ARAB200 | Arabic Language and Literature | 3 | | |
| | General Education Electives | 3 | | |
| Total | | 6 | | |

Third Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|--------------|-----------------------------|-----------|---|--------------------------|
| MENG420L | Heat Transfer Lab | 1 | MENG320 | MENG420 |
| MENG420 | Heat Transfer | 3 | MENG370-MENG320 | MENG420L |
| MENG430 | Mechanical Vibrations I | 3 | MENG300-MATH270 | MENG410-MATH310-MENG430L |
| | General Education Electives | 3 | | |
| EENG435 | Control Systems | 3 | PHYS220-MENG250-MATH270-MATH225-MATH310-EENG370 | |
| MENG430L | Mechanical Vibrations I Lab | 1 | CSCI250 | MENG430 |
| MENG410 | Mechanics of Materials II | 3 | MENG360 | |
| Total | | 17 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|--|---------|-----------------|------------------|
| ENGG450 | Engineering Ethics and Professional Practice | 3 | ENGL251 | ENGG300 |
| EENG492L | Electric Machines For Mechanical Engineers Lab | 1 | | EENG492 |
| MENG450L | Mechanical Systems I Lab | 1 | MENG300-MENG225 | MENG450 |
| MENG470 | Internal Combustion Engines | 3 | MENG420 | |
| MENG560 | Machine Design I | 3 | MENG410 | |
| EENG492 | Electric Machines For Mechanical Engineers | 3 | PHYS220-EENG370 | MENG430-EENG492L |
| MENG450 | Mechanical Systems I | 3 | MENG300 | MENG430-MENG450L |

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|-------|----|--|
| Total | 17 | |
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Summer Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|----------------------|---------|---------------|--------------|
| ENGG499 | Practical Experience | 4 | | |
| Total | | 4 | | |

Fourth Year

Fall Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|---------------------------------------|---------|---------------|----------------------------------|
| MENG610 | Machine Design II | 3 | MENG560 | MENG501L |
| MENG615 | Refrigeration & Air conditioning | 3 | MENG470 | MENG610-MENG520-MENG525-MENG615L |
| MENG615L | Refrigeration & Air conditioning Lab. | 1 | | MENG615 |
| MENG520 | Fluid Mechanics II | 3 | MENG470 | |
| MENG525 | Engineering Thermodynamics II | 3 | MENG420 | |
| MENG601 | Hydraulic and Pneumatic Systems | 3 | MENG470 | MENG610-MENG525-MENG520 |
| MENG501L | Mechanical Engineering Workshop | 1 | MENG450L | |
| Total | | 17 | | |

Spring Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|---|---------|---------------|--------------|
| | Major Elective | 3 | | |
| | Major Elective | 3 | | |
| CULT200 | Introduction to Arab - Islamic Civilization | 3 | | |
| | Major Elective | 3 | | |
| MENG550 | Mechanical Systems II | 3 | MENG450 | |
| Total | | 15 | | |

Summer Semester

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|------------------|---------|---|--------------|
| MENG596 | Capstone Project | 6 | MENG550-MENG615-MENG601-ENGL251-MENG610 | |
| Total | | 6 | | |

Major Elective Courses

| Code | Title | Credits | Prerequisites | Corequisites |
|----------|---|---------|---------------------------------|--------------|
| EENG585 | Introduction to Mechatronics | 3 | MENG250-MENG601-EENG492-EENG435 | |
| MENG555 | Introduction To Finite Element Analysis | 3 | | MENG560 |
| MENG580 | Advanced Heat Transfer | 3 | MENG520 | |
| MENG585 | Solar Energy & Thermal Systems | 3 | MENG525-MENG520 | |
| MENG591 | Automotive Engineering Fundamentals | 3 | MENG550 | MENG591L |
| MENG591L | Automotive Engineering Fundamentals Lab | 1 | MENG550 | MENG591 |
| MENG595 | Turbomachinery | 3 | MENG525-MENG520 | |

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|----------|---------------------------------------|---|-----------------|----------------------------------|
| MENG615 | Refrigeration & Air conditioning | 3 | MENG470 | MENG610-MENG520-MENG525-MENG615L |
| MENG615L | Refrigeration & Air conditioning Lab. | 1 | | MENG615 |
| MENG655 | Power Plant Engineering | 3 | MENG525-MENG520 | |