

A Major Academic Plan (MAP) illustrates one efficient path toward completing a degree and includes only required courses and credits. A list of Major, General Education, and Elective credits, as well as a summary of required credit categories, are shown on page two. **Individual MAP customization by each student is expected.**

Catalog Year 2016-2017

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ESMET – Mechanical Engineering | Credit Hours | Min. Grade | \*Attribute | \*\*When Offered | Pre & Co-requisites |
| Semester One |
| TGE 0159: Internship Strategies | 1 | D- |  | F, S |  |
| ESET 0141: Applied Mathematics I | 4 | C- |  | F | ESET 0101 or 0121 |
| ESET 0100: Introduction to Engineering Technology | 1 | C- |  | F |  |
| ESET 0100L: Introduction to Engineering Technology Laboratory | 1 | C- |  | F |  |
| ESET 0122: Electrical Systems and Motor Control Theory | 2 | C- |  | F | ESET 0122L |
| ESET 0122L: Electrical Systems and Motor Control Laboratory | 1 | C- |  | F | ESET 0122 |
| ESET 0125: Introduction to Structural Welding | 1 | C- |  | F |  |
| ESET 0127: Mechanical Power Transmission  | 4 | C- |  | F | ESET 0127L |
| ESET 0127L: Mechanical Power Transmission Laboratory | 3 | C- |  | F | ESET 0127 |
|  Total | 18 |  |  |  |  |
| Semester Two |
| GE Objective 5: PHYS 1101/L or CHEM 1100 | 4 | D- | GE | F, S |  |
| GE Objective 1: ENGL 1101 English Composition | 3 | D- |  | F, S |  |
| ESET 0142: Applied Mathematics II | 4 | C- |  | S | ESET 0102 or 0127 |
| ESET 0121: Basic Electricity and Electronics | 4 | C- |  | S | ESET 0121L |
| ESET 0121L: Basic Electricity and Electronics Laboratory | 4 | C- |  | S | ESET 0121 |
| ESET 0126: Intro to Mechanical Drafting and Computer Aided Design | 1 | C- |  | S |  |
|  Total | 20 |  |  |  |  |
| Semester Three |
| GE Objective 3: MATH 1153 or MATH 1170 | 3 | D- | GE | F, S |  |
| GE Objective 6: Social & Behavioral Ways of Knowing  | 3 | C- | GE | F, S |  |
| ESET 0220: Thermal Cycles and Heath Transfer | 2 | C- |  | F | ESET 0101/L, 0141, 0142 |
| ESET 0240: Pumps | 3 | C- |  | F | ESET 0127/L, 0240L |
| ESET 0240L: Pumps Applications Laboratory | 3 | C- |  | F | ESET 0240 |
| ESET 0241: Valves | 3 | C- |  | F | ESET 0127/L, 0241L |
| ESET 0241L: Valves Applications Laboratory | 2 | C- |  | F | ESET 0127/L, 0241 |
| ESET 0242: Process Measurements for Mechanical Engineering | 2 | C- |  | F |  |
|  Total  | 21 |  |  |  |  |
| Semester Four  |  |  |  |  |  |
| GE Objective 2: COMM 1101 | 3 | C- |  | F, S  |  |
| ESET 0221: Boiler Reactor and Turbine Principles | 2 | C- |  | S | ESET 0101/l, 0102/L, 0141, 0142 |
| ESET 0243: Fluid and Pneumatic Power | 2 | C- |  | S | ESET 0127/L, 0243L |
| ESET 0243L: Fluid and Pneumatic Power Laboratory | 2 | C- |  | S | ESET 0127/L, 0243 |
| ESET 0244: Rotating Equipment Maintenance | 4 | C- |  | S | ESET 0244L, 0127 |
| ESET 0244L: Rotating Equipment Maintenance Laboratory | 3 | C- |  | S | ESET 0244, 0127 |
| ESET 0245: Fundamentals of Heat Exchangers | 2 | C- |  | S |  |
| ESET 0246: Materials and Metallurgy | 2 | C- |  | S |  |
|  Total | 20 |  |  |  |  |
| \*Key for Attribute: U=Upper division GE=General Education Objective \*\*Key for When Offered: F=Fall S=Spring Su=Summer D=contact department (more…) |

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| **2016-2017 Major Requirements** | **CR** | **2016-2017 GENERAL EDUCATION OBJECTIVES****Satisfy Objectives 1,2,3, 5, 6** | **16 cr. min** |
| **MAJOR REQUIREMENTS** |  | 1. Written English (3 cr. min) ENGL 1101 or ENGL 1101P | 3 or 4 |
| ESET 0141: Applied Mathematics I | 4 | 2. Oral Communication (3 cr. min) COMM 1101 | 3 |
| ESET 0100: Introduction to Engineering Technology | 1 | 3. Mathematics MATH 1153 or 1170  | 3 |
| ESET 0100L: Introduction to Engineering Technology Laboratory | 1 | 6. Behavioral and Social Science  | 3 |
| ESET 0122: Electrical Systems and Motor Control Theory | 2 | 5. Scientific Ways of Knowing CHEM 1100, or PHYS 1101/lab | 4 |
| ESET 0122L: Electrical Systems and Motor Control Laboratory | 1 |  |  |
| ESET 0125: Introduction to Structural Welding | 1 | **TOTAL** | **16** |
| ESET 0127: Mechanical Power Transmission  | 4 |  |
| ESET 0127L: Mechanical Power Transmission Laboratory | 3 |  |  |
| ESET 0142: Applied Mathematics II | 4 |  |  |
| ESET 0121: Basic Electricity and Electronics | 4 |  |  |
| ESET 0121L: Basic Electricity and Electronics Laboratory | 4 |  |
| ESET 0126: Intro to Mechanical Drafting and Computer Aided Design | 1 |  |  |
| ESET 0220: Thermal Cycles and Heath Transfer | 2 |  |  |
| ESET 0240: Pumps | 3 |  |
| ESET 0240L: Pumps Applications Laboratory | 3 |  |  |
| ESET 0241: Valves | 3 |  |
| ESET 0241L: Valves Applications Laboratory | 2 |  |
| ESET 0242: Process Measurements for Mechanical Engineering | 2 |  |  |
| ESET 0221: Boiler Reactor and Turbine Principles | 2 |  |
| ESET 0243: Fluid and Pneumatic Power | 2 |  |  |
| ESET 0243L: Fluid and Pneumatic Power Laboratory | 2 | GE Objectives Courses:(University Catalog 2016-2017) |
| ESET 0244: Rotating Equipment Maintenance | 4 |
| ESET 0244L: Rotating Equipment Maintenance Laboratory | 3 |  |  |
| ESET 0245: Fundamentals of Heat Exchangers | 2 |  |  |
| ESET 0246: Materials and Metallurgy | 2 |  |  |
| TGE 0159: Internship Strategies | 1 |  |  |
|  |  | **MAP Credit Summary** | **CR** |
|  |  | Major  | 63 |
|  |  | General Education  | 16 |
|  |  | Free Electives to reach 60 credits | 0 |
|  |  |  TOTAL | 79 |
|  |  |  |  |
| **TOTAL** | **63** |  |  |
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| **Advising Notes** |  |  |
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|  | **Graduation Requirement Minimum Credit Checklist** | **YES** | NO |
|  | Min. of 15 credits of General Education Objectives |  |  |
|  | Min. of 60 credits |  |  |
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