

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

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| ESNUC – Nuclear Engineering | Credit Hours | Min. Grade | \*Attribute | \*\*When Offered | Pre & Co-requisites |
| Semester One | | | | | |
| ESET 0141: Applied Mathematics I | 4 | C- |  | F | ESET 0101 |
| ESET 0100: Engineering Technology Orientation | 1 | C- |  | F |  |
| ESET 0101: Electrical Circuits I | 5 | C- |  | F | ESET 0101L |
| ESET 0101L: Electrical Circuits I Laboratory | 5 | C- |  | F | ESET 0101 |
| ESET 0151: Nuclear Industry Fundamental Concepts | 4 | C- |  | F | ESET 0151L |
| ESET 0151L: Nuclear Industry Fundamental Concepts Laboratory | 1 | C- |  | F | ESET 0151 |
| TGE 0159: Internship Strategies | 1 | D- |  | F, S |  |
| Total | 18 |  |  |  |  |
| Semester Two | | | | | |
| GE Objective 2: COMM 1101 Principles of Speech | 3 | D- | GE | F, S |  |
| GE Objective 5: PHYS 1101/L | 4 | D- | GE | F, S |  |
| ESET 0142: Applied Mathematics II | 4 | C- |  | S | ESET 0102 |
| ESET 0102: Electrical Circuits II | 5 | C- |  | S | ESET 0102L |
| ESET 0102L: Electrical Circuits II Laboratory | 5 | C- |  | S | ESET 0102 |
| Total | 21 |  |  |  |  |
| Semester Three | | | | | |
| GE Objective 1: ENGL 1101 English Composition | 3 | D- | GE | F, S |  |
| GE Objective 5: CHEM 1111/L | 5 | D- | GE | F, S |  |
| ESET 0220: Thermal Cycles and Heat Transfer | 2 | C- |  | F | ESET 0101/L 0102/L, 0141, 0142 |
| ESET 0251: Reactor Theory, Safety and Design | 3 | C- |  | F |  |
| ESET 0252: Power Plant Components | 3 | C- |  | F |  |
| ESET 0280: Capstone/Case Studies in Nuclear Operations | 2 | C- |  | F |  |
| Total | 18 |  |  |  |  |
| Semester Four |  |  |  |  |  |
| GE Objective 6: Social and Behavioral Ways of Knowing | 3 | D- | GE | F, S |  |
| GE Objective 3: MATH 1153 or MATH 1170 | 3 | D- | GE | F, S |  |
| ESET 0221: Boiler, Reactor, and Turbine Principles | 2 | C- |  | S | ESET 0101/L 0102/L, 0141, 0142 |
| ESET 0222: Process Control Theory | 3 | C- |  | S | ESET 0101/L 0102/L, 0141, 0142, 0226 |
| ESET 0226: Process Control Devices Laboratory | 1 | C- |  | S | ESET 0101/L 0102/L, 0141, 0142, 0222 |
| ESET 0248: Power Plant Drawings | 3 | C- |  | S |  |
| ESET 0249: Reactor Plant Materials | 3 | C- |  | S |  |
| ESET 0250: Radiation Detection and Protection | 3 | 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: Engineering Technology Orientation | 1 | 3. Mathematics (3 cr. min) MATH 1153 or 1170 | | 3 | |
| ESET 0101: Electrical Circuits I | 5 | 6. Behavioral and Social Science | | 3 | |
| ESET 0101L: Electrical Circuits I Laboratory | 5 | 5. Scientific Ways of Knowing Phys 1101/L and CHEM 1111/L | | 9 | |
| ESET 0151: Nuclear Industry Fundamental Concepts | 4 |  | |  | |
| ESET 0151L: Nuclear Industry Fundamental Concepts Laboratory | 1 | **TOTAL** | | **21** | |
| ESET 0142: Applied Mathematics II | 4 |  | | | |
| ESET 0102: Electrical Circuits II | 5 |  | |  | |
| ESET 0102L: Electrical Circuits II Laboratory | 5 |  | |  | |
| ESET 0220: Thermal Cycles and Heat Transfer | 2 |  | |  | |
| ESET 0251: Reactor Theory, Safety and Design | 3 |  | | | |
| ESET 0252: Power Plant Components | 3 |  | |  | |
| ESET 0280: Capstone/Case Studies in Nuclear Operations | 2 |  | |  | |
| ESET 0221: Boiler, Reactor, and Turbine Principles | 2 |  | | | |
| ESET 0222: Process Control Theory | 3 |  | |  | |
| ESET 0226: Process Control Devices Laboratory | 1 |  | |
| ESET 0248: Power Plant Drawings | 3 |  | | | |
| ESET 0249: Reactor Plant Materials | 3 |  | |  | |
| ESET 0250: Radiation Detection and Protection | 3 |  | | | |
| TGE 0159: Internship Strategies | 1 |  | |  | |
|  |  | GE Objectives Courses:  (University Catalog 2016-2017) | | | |
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|  |  | **MAP Credit Summary** | | | **CR** |
|  |  | Major | | | 60 |
|  |  | General Education | | | 21 |
|  |  | Free Electives to reach 60 credits | | | 0 |
|  |  | TOTAL | | | 81 |
|  |  |  | | |  |
| **TOTAL** | **59** |  | | |  |
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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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