

**Catalog Year 2018-2019**

ITC, Cyber Physical Security

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is an efficient strategy only. **Actual plans for individual students will vary based on advisor recommendations and academic needs.** Official Program Requirements including Major, General Education, Elective, and university requirements (see pg.2) are based on Catalog Year.

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| **Course Subject and Title** | **Cr.**  | **Min.** **Grade** | **\*GE,** **UU or UM** | **\*\*Sem. Offered** | **Prerequisite** | **Co Requisite** |
| Semester One |
| ESET 0100: Engineering Technology Orientation | 1 | C- |  | F,S |  |  |
| ESET 0100L: Engineering Technology Orientation Lab | 1 | C- |  | F,S |  |  |
| ESET 0103: Introduction to Electronics Theory | 1 | C- |  | D |  | ESET 0103L |
| ESET 0103L: Introduction to Electronics Lab | 1 | C- |  | D |  | ESET 0103 |
| ESET 0104: DC Electronics Principles Theory | 2 | C- |  | D |  |  |
| ESET 0104L: DC Electronics Principles Lab | 2 | C- |  | D |  |  |
| ESET 0120: Introduction to Energy Systems | 2 | C- |  | F |  | ESET 0120L |
| ESET o120L: Introduction to Energy Systems Lab | 1 | C- |  | F |  | ESET 0120 |
| ESET 0282A: Introduction to Network Security I | 1 | C- |  | F | Instructor Permission |  |
| ESET 0282B: Introduction to Network Security II | 2 | C- |  | F | Instructor Permission | ESET 0282A |
| ESET 0283: Information System Security Design | 3 | C- |  | F | Instructor Permission |  |
| ESET 0284: Risk Management for Critical Data Systems | 3 | C- |  | F | Instructor Permission |  |
|  Total | **20** |  |  |  |  |  |
| Semester Two |
| ESET 0110: Introduction to Process Control | 1 | C- |  | F,S | ESET 0100 | ESET 0110L |
| ESET 0110L: Introduction to Process Control Lab | 1 | C- |  | F,S | ESET 0100L | ESET 0110 |
| ESET 0223: Digital Control Theory | 2 | C- |  | S | ESET 0101 or Instructor Permission |  |
| ESET 0227: Digital Control Systems Lab | 1 | C- |  | S | ESET 0101L or Instructor Permission |  |
| ESET 0281: Defending Critical Infrastructure and Cyber-Physical Sys | 3 | C- |  | S | ESET 0282A, 0202B, 0283, 0284 |  |
| ESET 0286: Critical Network Security | 3 | C- |  | S | ESET 0282 or 0282A and 0202B |  |
| ESET 0287: Professional Certification | 3 | C- |  | S | ESET 0282, 0283 | ESET 0281 |
| ESET 0289: Cyber Physical Systems Security Capstone OR ESET 0297: Internship | 3 | C- |  | S | Instructor Permission |  |
|  Total | **17** |  |  |  |  |  |
| Semester Three |
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|  Total |  |  |  |  |  |  |
| Semester Four |
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|  Total |  |  |  |  |  |  |
| \*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major\*\*See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)  |

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| **2018-2019 Major Requirements** | **CR** | **GENERAL EDUCATION OBJECTIVES****\*Objectives not required for ITC** | **0 cr. min** |
| **Cyber Physical Security, ITC MAJOR REQUIREMENTS** | **37** | 1. Written English (6 cr. min) ENGL 1101 |  |
| ESET 0100: Engineering Technology Orientation | 1 |  ENGL 1102 |  |
| ESET 0100L: Engineering Technology Orientation Lab | 1 | 2. Spoken English (3 cr. min) COMM 1101 |  |
| ESET 0103: Introduction to Electronics Theory | 1 | 3. Mathematics (3 cr. min)  |  |
| ESET 0103L: Introduction to Electronics Lab | 1 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** |
| ESET 0104: DC Electronics Principles Theory | 2 |  |  |
| ESET 0104L: DC Electronics Principles Lab | 2 |  |  |
| ESET 0110: Introduction to Process Control | 1 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** |
| ESET 0110L: Introduction to Process Control Lab | 1 |  |  |
| ESET 0120: Introduction to Energy Systems | 2 |  |  |
| ESET 0120L: Introduction to Energy Systems Lab | 1 | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** |
| ESET 0223: Digital Control Theory | 2 |  |  |
| ESET 0227: Digital Control Systems Lab | 1 |  |  |
| ESET 0281:Defending Critical Infrastructure/Cyber-Physical Sys | 3 | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** |
| ESET 0282A: Introduction to Network Security I | 1 | 7. Critical Thinking |  |
| ESET 0282B: Introduction to Network Security II | 2 | 8. Information Literacy  |
| ESET 0283: Information System Security Design | 3 | 9. Cultural Diversity **(1 course; 3 cr. min)** |
| ESET 0284: Risk Management for Critical Data Systems | 3 |  |  |
| ESET 0286: Critical Network Security | 3 | General Education Elective to reach 36 cr. min. **(if necessary)** |
| ESET 0287: Professional Certification | 3 |   |  |
| ESET 0289: Cyber Physical Systems Security Capstone OR ESET 0297: Internship | 3 |  **Total GE** |  |
| Undergraduate Catalog and GE Objectives by [Catalog Year](https://www.isu.edu/advising/academic-support/general-education/)  |
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|  |  | **MAP Credit Summary** | **CR** |
|  |  | Major  | 37 |
|  |  | General Education  | 0 |
|  |  | Free Electives to reach 120 credits | 0 |
|  |  |  TOTAL | **37** |
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|  |  | **Graduation Requirement Minimum Credit Checklist** | **Confirmed** |
|  |  | Minimum 0 cr. General Education Objectives  |  |
|  |  | Minimum 37 cr.  |  |  |
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| **Advising Notes** | ***MAP Completion Status (for internal use only)*** |
| Students must have completed a previous degree relating to  |  | *Date* |
| Computer Science and meet ESTEC acceptance requirements. | *Department:*  |  |
|  | *CAA or COT:* |  |
| For AAS in ESTEC, see Advisor. | *Registrar:*  |  |
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 Form Revised 1.24.2018