# Minor in Systems Engineering

The minor in Systems Engineering provides the student with a foundation in the fundamentals of systems engineering. The minor recognizes and responds to the need within industry and government for graduating engineers to have a basic familiarity with principles and practices of systems engineering.

*Some majors may not be eligible to pair with this minor. See the* Minor Restrictions *(*https://catalog.erau.edu/programs/undergraduate/minors/restrictions/*) list for details.*

## Daytona Beach Minor Requirements

| | | |
|---|---|---|
| MATH 412 | Probability and Statistics | 3 |
| SYSE 301 | Introduction to Systems Engineering | 3 |
| SYSE 304 | Trade Studies, Risk and Decision Analysis | 3 |
| or SYSE 310 | Systems Architecture Modeling | |
| SYSE 415 | Systems Engineering Practices: Specialty Engineering | 3 |
| Choose One of the Following: | | 3 |
| AERO 350 | Project Engineering | |
| CIVE 222 | Introduction to Environmental Engineering | |
| CIVE 311 | Introduction to Transportation Engineering | |
| CIVE 340 | Construction Engineering | |
| ELEC 311 | Robotics and Autonomous Systems I | |
| ELEC 401 | Control Systems Analysis and Design | |
| MGMT 201 | Principles of Management | |
| SYSE 303 | Optimization in Systems Engineering | |
| CESC 300 | Computing in Aerospace and Aviation | |
| CPSC 350 | Computer Modeling and Simulation / Systems Modeling | |
| ENGP 312 | Space Systems Engineering | |
| HFCT 315 | Automation and Systems Issues in Aviation | |
| HFCT 325 | Human Factors and System Safety | |
| HFCT 412 | Simulating Humans in Complex Systems | |
| SYSE 302 | System Engineering Design Considerations | |
| SYSE 330 | Professional Standards for Systems Engineers | |
| SYSE 401 | Systems Modeling and Simulation | |
| SYSE 403 | Systems Engineering Life Cycle Costing | |
| SYSE 425 | System Quality Engineering | |
| SYSE 460 | Systems Engineering Management | |
| **Total Credits** | | **15** |

## Prescott Minor Requirements

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|---|---|---|
| MATH 412 | Probability and Statistics | 3 |
| SYSE 301 | Introduction to Systems Engineering | 3 |
| SYSE 304 | Trade Studies, Risk and Decision Analysis | 3 |
| or SYSE 310 | Systems Architecture Modeling | |
| SYSE 415 | Systems Engineering Practices: Specialty Engineering | 3 |
| Choose One of the Following: | | 3 |
| AERO 350 | Project Engineering | |
| CIVE 222 | Introduction to Environmental Engineering | |
| CIVE 311 | Introduction to Transportation Engineering | |
| CIVE 340 | Construction Engineering | |
| ELEC 311 | Robotics and Autonomous Systems I | |
| ELEC 401 | Control Systems Analysis and Design | |
| MGMT 201 | Principles of Management | |
| SYSE 303 | Optimization in Systems Engineering | |
| AERO 430 | Control System Analysis and Design | |
| ENGP 312 | Space Systems Engineering | |
| GSIS 365 | Project Management | |
| CESC 300 | Computing in Aerospace and Aviation * | |
| MECH 371 | Robotic Technologies for Uncrewed Systems * | |
| HFCT 312 | Ergonomics and Bioengineering * | |
| HFCT 315 | Automation and Systems Issues in Aviation * | |
| HFCT 325 | Human Factors and System Safety * | |
| **Total Credits** | | **15** |

* These courses are taught at the Daytona Beach campus can be used as elective credit towards the Minor in Systems Engineering