

ISYE 4901: Senior Design Project I

1 Credit Hours

Prerequisite: Engineering Standing and Senior Status

This is the first in a two-course sequence culminating the undergraduate engineering education in Industrial and Systems Engineering. Under the guidance of a faculty mentor and/or an industry partner mentor, students form small teams to apply engineering design principles and methods for solving an industry-relevant engineering design problem. This first course in the sequence covers topics including engineering ethics, the Fundamentals of Engineering exam, and professional engineering organizations.

ISYE 4902: Senior Design Project II

3 Credit Hours

Prerequisite: ISYE 4901

This is the second in a two-course sequence culminating the undergraduate engineering education in Industrial and Systems Engineering. The course focuses on the student completing a project that is a comprehensive application of the subject matter in the ISYE curriculum. The general intent of the project is to demonstrate the students' knowledge of the integrative aspects of the systems engineering process. Students are encouraged to 'Design and Build' and utilize concepts learned from courses throughout the program. Formal report and oral presentations are required in this course.

ISA 3010: Security Script Programming

3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides a study of secure programming and security scripting techniques. The course examines aspects of developing traditional computer software, applying additional controls and measures to prevent the development of vulnerable and exploitable code. The course then examines scripting techniques used in support of ongoing technical security functions.