



Syllabus

SST 116 Introduction to Careers in High-Tech Ecosystems (FYE)

General Information

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Course Prefix SST

Course Number 116

Course Title Introduction to Careers in High-Tech Ecosystems (FYE)

Course Information

Catalog Description The purpose of this First Year Experience course is to introduce students to the emerging technologies careers as observed at site visits of area high technology businesses, and made tangible in class through hands on-experiences with tools (LabVIEW) and techniques used in the curriculum. Students practice industry recommended soft-skills such as communication and team work. The seminar helps students see how other courses, such as mathematics and physics, play a critical role in the AAS Instrumentation and Control Technologies degree program. Students learn to articulate the relevance of the curriculum for local and regional economic development based on high technologies.

Credit Hours 3

Lecture Contact Hours 3

Lab Contact Hours 0

Other Contact Hours 0

Grading Scheme Letter

Prerequisites

MAT 097

Co-requisites

None

First Year Experience/Capstone Designation

This course is designated as satisfying the outcomes applicable for status as a First Year Experience

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed categories

None

FLCC Values

Institutional Learning Outcomes Addressed by the Course

Vitality, Inquiry, Perseverance, and Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Define roles and responsibilities of an engineering technologist
2. Describe problem solving methodology in a technical career
3. Articulate examples of interconnections between mathematics, computer modeling, and emerging technologies.
4. Investigate range of businesses in order to understand necessary soft-skills and technical skills required for co-op.

Outline of Topics Covered

- I. **Innovative problem solving, tools, teams, and dynamics of successful innovation**
- II. **Introduction to quantitative modeling skills using Excel and LabVIEW**
- III. **Adaptable tools and techniques of instrumentation and control technologies**
- IV. **Introductory examples of automation and control of equipment using computers**
- V. **Contextualization of other courses in the multidisciplinary degree program**
- VI. **Objectives of communication, physics, mathematics, and technological courses**
- VII. **Interdependence of subjects, tools, personnel across diverse fields**
- VIII. **Characteristics of adaptable technologist in 21st Century**
- IX. **Professionalism, Standards & Certification**

- X. Code of Ethics (Instrumentation, Systems, and Automation Society)**
- XI. Co-op and Job opportunities in local high-tech industries**
- XII. Emerging Technologies and Automation in the wired world**
- XIII. The relevance of the curriculum for local and regional economic development based on high technologies.**
- XIV. Options for further education, Careers and Professional Development**