Course Syllabus

Department: Science and Technology

Date: 12/12/12

I. Course Prefix and Number: TECH 115

Course Name: Technology Freshman Seminar

Credit Hours and Contact Hours: 2 credit hours / 3 contact hours

Catalog Description including pre- and co-requisites:

Today's engineering and technology fields and the multifaceted role of the technologist will be explored. Orientation to student services, academic policies, stress management, science study skills, time management, and other college survival skills will be presented. Additional topics of study include applied mathematics, use of scientific calculators, teamwork and problem solving skills in the classroom and laboratory, and an introduction to the physical units and dimensions encountered in the technologies.

Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable:

The course is required for A.A.S. Architectural Technology & Building Sciences and A.A.S. Mechanical Technology.

II. Course Student Learning Outcomes:

Students will:
1. Identify college resources and policies.
2. Apply strategies such as time management and study skills that promote success in college courses.
3. Investigate and set educational and career goals; investigate career options in the technologies.
4. Demonstrate critical thinking skills and problem solving strategies.
5. Use a scientific calculator.
6. Use basic engineering and scientific units.
7. Solve a design problem working as a member of a team.
College Learning Outcomes Addressed by the Course:

- writing
- oral communications
- reading
- mathematics
- critical thinking
- computer literacy
- ethics/values
- citizenship
- global concerns
- information resources

III. Assessment Measures:

<table>
<thead>
<tr>
<th>Identified College Learning Outcomes</th>
<th>Specific Assessment Measures</th>
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<tbody>
<tr>
<td>Mathematics</td>
<td>Worksheets and quizzes related to scientific calculators, measurement systems, and mathematics will be assigned.</td>
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<tr>
<td>Oral Communication</td>
<td>Students will participate in a group design project and present it to the class. Components of the project will evaluate professional values such as technical competency and teamwork.</td>
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<tr>
<td>Critical Thinking (Problem Solving)</td>
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<tr>
<td>Ethics / Values (Professional Values)</td>
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IV. Instructional Materials and Methods

Types of Course Materials:

Textbook, scientific calculator

Methods of Instruction:

Lecture, demonstrations, in-class problem solving, problem sets, guest speakers, projects, field trips

V. General Outline of Topics Covered:
1. Introduction
2. Sketching, Lettering, & Lines
3. General College Survival Skills
4. Technology as a Career
5. Career Choices in the Technologies
6. Survival Skills for the Technologies
7. Calculator Skills
8. Measurement Systems
9. Right Angle Trigonometry
10. The Technical Lab
11. Team Design Project