Course Syllabus

Department: Science and Technology

Date: 12/12/12

I. Course Prefix and Number: TECH 242

Course Name: Construction Management

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

Catalog Description including pre- and co-requisites:

An overview of principles and practices in the administration of architectural construction projects is presented. Topics include construction methods and materials, planning and scheduling, job cost control, contracts, specifications, safety, and labor relations. Prerequisite: TECH 130 or permission of the instructor.

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. The course may be taken as a technology elective for A.A.S. Mechanical Technology. Students in other programs may take the course if they have the appropriate background.

II. Course Student Learning Outcomes:

Student will:
1. Explain the lifecycle of an architectural project from planning to completed construction.
2. Describe the responsibilities of the owner, architect and contractor.
3. Identify the components of a set of contract documents and describe the purpose of each.
4. Define the roles of OSHA (Occupational Safety and Health Administration) and labor unions.
5. Identify and apply the legal requirements for publicly funded projects such as Wick’s Law and competitive bidding.
6. Describe scheduling methods and financing considerations.
7. Observe the local construction environment and its impact on construction projects.
College Learning Outcomes Addressed by the Course:

- [ ] writing
- [ ] computer literacy
- [ ] oral communications
- [ ] ethics/values
- [x] reading
- [ ] citizenship
- [ ] mathematics
- [ ] global concerns
- [ ] critical thinking
- [x] 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>Reading</td>
<td>Selected questions on exam will evaluate students’ ability to read and comprehend contractual agreements standard to the construction industry.</td>
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<tr>
<td>Information Resources</td>
<td>Selected questions on an exam will evaluate students’ ability to apply the applicable material.</td>
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IV. Instructional Materials and Methods

Types of Course Materials:

Textbook

Methods of Instruction:

Lecture, video, reading and writing assignments, field trips, interview, projects

V. General Outline of Topics Covered:

1. Characteristics of the construction industry.
2. Trends and changes in the construction industry.
3. Life cycle of a project - planning, design, construction.
4. Contract documents - general conditions, special conditions, addenda, change orders.
5. Types of contracts – negotiated, bid, fixed cost, cost plus fee.
6. Legal issues related to construction - claims, dispute resolution, arbitration, company organization, Wicks Law.
7. Construction financing - cash flow, bonding, mortgages, bonds.
9. Scheduling - Gantt charts, Critical Path Method
10. Labor Relations - history of labor movement, dealing with union and non-union workers.
11. Safety – OSHA
12. Local construction environment