INDUSTRIAL SEMINAR
CHT 1030

Class Hours: 0.0
Credit Hours: 1.0

Laboratory Hours: 3.0
Date Revised: Fall 2001

NOTE: This course is not designed for transfer credit.

Catalog Course Description:
A study of the organization and technology of local industry and the role of the chemical and environmental engineering technician. Information is provided through plant tours and discussion with employers and program graduates.

Entry Level Standards:
This course is open to all students, but some science background will make the course much more meaningful.

Prerequisites:
None

Textbook(s) and Other Reference Materials Basic to the Course:
The Unwritten Laws of Engineering, W. J. King, The American Society of Mechanical Engineers.

I. Week/Unit/Topic Basis:
This schedule is typical of the course order, but each time the course is taught the specific order and specific speakers and visits will be different, depending on the availability of speakers and inspection trips.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Organization of Industry</td>
</tr>
<tr>
<td>2</td>
<td>Qualities of Technician</td>
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<tr>
<td>3</td>
<td>Progress of an Engineering Project</td>
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<tr>
<td>4-14</td>
<td>Plant visits to representative industries and speakers with jobs representative of the engineering technology field.</td>
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<tr>
<td>15</td>
<td>Strategies for Getting a Job</td>
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<tr>
<td>16</td>
<td>Overview/Final</td>
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</tbody>
</table>

II. Course Objectives*: 
A. Understand the roles of the engineer, scientist, technician, operator, analyst, and manager in a typical manufacturing industry. II

B. Recognize some of the essential qualities of a good engineering technician. II

C. Describe some of the industries in the local area. IV

D. Understand the Chemical and Environmental Engineering Technology program goals and the type of work done by the program graduates. I, II, III, IV, V

*Roman numerals after course objectives reference goals of the Chemical/Environmental Engineering Technology program.

III. Instructional Processes*:

Students will:

1. Participate in seminar presentations and discussions with speakers who may be faculty and staff, program graduates or other outside speakers. Communication Outcome, Personal Development Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy

2. Visit manufacturing, environmental or other facilities which employ or could employ program graduates. The typical visits include Rohm and Haas (a chemical manufacturer), AE Staley (a corn refiner), Galbreath Laboratories (a contract analytical lab), ORNL environmental research lab, ORNL isotope separation facility (this facility employs program graduates as operators), TechmerPM (a color concentrate manufacturer for the plastics industry), KUB wastewater treatment plant and other facilities as they can be scheduled. Communication Outcome, Personal Development Outcome, Technological Literacy Outcome, Transitional Strategy, Active Learning strategy

3. Write a description of the facilities visited with an emphasis on detailed observations. Communication Outcome, Information Literacy Outcome, Active Learning strategy

*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Describe the organization of a typical manufacturing company and where engineering technician graduates fit into the organization. A, B, D

2. Understand the differences in education and attitude between engineers, scientists, technicians, operators analysts, and managers. A

3. Understand what makes a good employee in general. B

4. Understand the qualities that are important in getting a new job. A, B

5. Recognize the unique need for technicians to excel in the areas of being a self-starter, being persistent, being ingenious, being diplomatic, and being open to instruction and suggestion. B

6. Recall details from plant visits. C
7. Recall details from talks by seminar speakers and relate them to local industry capability. C

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

N/A

B. Laboratory Expectations:

N/A

C. Field Work:

Seminars and Visits: Evaluation of the seminar sessions will be based on attendance and participation (discussion questions). The plant visits will require a paper describing the plant. It is the intent of this paper to emphasize learning to be a good observer and these papers will be graded for thoroughness and insight into what was shown on the visit. Student may wish to do research in the library on the companies visited or discussed. Students will need to schedule three hours for this course even though many sessions may only be one-hour talks. Students attending plant visits must wear correct apparel and follow instructions of the host or guide in the facility visited.

D. Grading Scale:

Grading scale will start everyone with an "A" grade and there will be a loss of one half of a letter grade for each miss of a lecture or a plant trip. Asking relevant questions in half of the lectures and writing better than average papers for half the plant visits will add up to one letter grade (if needed). Attendance at all lectures and trips is required. It is crucial that students participate since it casts the school in an unfavorable light if a small number of people participate when a speaker has come to the school (sometimes taking a vacation day) or people have taken time from work to act as guide or host for a plant tour.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
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<tr>
<td>B+</td>
<td>87 – 89</td>
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<tr>
<td>B</td>
<td>80 – 86</td>
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<tr>
<td>C+</td>
<td>77 – 79</td>
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<tr>
<td>C</td>
<td>70 – 76</td>
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<tr>
<td>D</td>
<td>60 – 70</td>
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<tr>
<td>F</td>
<td>below 60</td>
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VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course (Pellissippi State Catalog). Individual departments/programs/disciplines, with the approval of the vice president of Academic and Student Affairs, may have requirements that are more stringent.

B. Academic Dishonesty:
In keeping with college-wide policies, the student is expected to adhere to the general rules and regulations relevant to academic and classroom misconduct as outlined in the catalog.

C. Use of Equipment:

Any act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property/equipment belonging to Pellissippi State is subject to disciplinary sanction.