

# CONe 471.01W Industrial Internship Course Syllabus: Spring, 2013 Web Based

Instructor: Dr. Gregory P. Wilson, P.E., M. ASCE Assistant Professor Department of Engineering & Technology

Office Location: Charles J. Austin Industrial Engineering & Technology Building, Room 218

Office Hours: Monday – Thursday 8:00 AM – 4:00 PM or by appointment This is a web based course. Instructor will be available via email throughout the day, Monday – Friday Instructor will be available other times during the week by appointment.

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## **COURSE INFORMATION**

# Materials – Textbooks, Readings, Supplementary Readings:

*Textbook(s) Required*: No required textbook.

- Required Materials: Bound notebook, such as a composition notebook. (Available at the A&M-Commerce bookstore or any office supply stores)
- Reference Materials: Texas A&M University-Commerce (n.d.). Make the connection: Career development handbook, Texas A&M University-Commerce Career Development. Available through A&M-Commerce's Career Development Services or online at: <u>http://web.tamu-</u> <u>commerce.edu/studentLife/campusServices/careerDevelopment/docume</u> nts/theCareerDevelopmentHandbook.pdf

Illinois Institute of Technology, (2009), *Engineering notebook guidelines for IPRO courses,* Illinois Institute of Technology Interprofessional Projects Program, available at: <a href="http://ipro.iit.edu/home/downloads/deliverables/Engineering\_Notebook\_Guidelines.pdf">http://ipro.iit.edu/home/downloads/deliverables/Engineering\_Notebook\_Guidelines.pdf</a>

# **Course Description:**

Occupational experience in construction (minimum of 100 hours). Work experience is cooperatively planned by the department and employer to fulfill the student's objectives. Weekly conferences, assignments, and reports required. Prerequisite: CONe major, senior standing and consent of the Instructor and Department Head.

### **Student Learning Outcomes:**

- 1. Apply classroom and laboratory concepts and principles in an industry work environment.
- 2. Establish goals by working with supervision to define work objectives for the internship experience.
- 3. Demonstrate time and project management skills by completing the work objectives within the specified time limits.
- 4. Demonstrate the ability to effectively present ideas and solutions in the context of written, oral, and electronic media.
- 5. Demonstrate the ability to work as a team member to successfully complete the assigned work objectives in an assigned company work group.
- 6. Demonstrate and promote a proper work ethic.

### COURSE REQUIREMENTS

### Instructional / Methods / Activities Assessments

This course is a work-based internship in the field of industrial technology or related industry. In addition to the on-site work projects, each student will participate in weekly activities and assignments designed to assist an individual of achieving the learning outcomes for the course.

#### Work Based Objectives: 60 points (~55% of total course grade)

#### Student Learning Outcomes #1, #2, #3, #4, #5, #6

Students must work a minimum of 100 hours during the time period they are enrolled in the Industrial Internship course. Each student will work with their supervisor to jointly develop 3 projects / activities, which will be accomplished during the internship program. The projects/activities should be unique and must be related to the knowledge and/or skills attained during their degree program. The projects must be approved by the instructor and/or lead faculty member.

<u>Assessment Method:</u> The approved projects will be selected and documented on the Internship Work Objectives Evaluation Form during the first days of the semester. The form will be signed the student, supervisor, and instructor signifying the agreed upon projects. At the end of the semester, the supervisor will rate the performance of the student as either Satisfactory or Unsatisfactory. A satisfactory rating is worth 20 points. An unsatisfactory rating will receive less than 20 points. The number of points will be based upon the percentage of the task completed, based upon input from the supervisor.

# Engineering Notebook & Work Log: 10 points (~9% of total course grade)

Student Learning Outcomes #4, #6

Students will accurately document their industry work experience through a work log and engineering notebook.

<u>Assessment Method:</u> Each student will maintain a descriptive daily log of work activities (minimum 100 hours). The daily log is to be created using a word processor (e.g. Word) or database program (e.g. Excel). The log is to be completed in a professional and organized format. The major activities should be recorded for each day work is performed. The following format is offered as a suggestion (Note: sufficient detail must be provided to adequately describe the work performed).

<u>Texas A&amp;M University – Commerce</u> Department of Industrial Engineering & Technology Daily Log (Template)							
Course: (number & title)         Name:							
Date	Hours Worked	Activities for Hours Worked					

In addition, each student will keep an accurate record of the internship projects in an engineering notebook. The notebook must be bound with page numbers. The notebook should be used to record key meetings as well as ideas, results, observations, references, and any other information related to a project. This includes all design ideas and tests, whether they were successfully implemented or not. Information should be recorded directly into the notebook in ink rather than writing it on scratch paper and transferring it at a later time. Sufficient detail should be included, which would allow someone to replicate the design and/or project with limited or no prior knowledge of the project.

Key Guidelines:

- Entries should be legible and made in ink.
- Leave the first few pages blank to add a Table of Contents.
- Date each entry.
- Title each entry so it is clear which project is associated with the data or information.
- List each person who participated in the meeting or effort being documented.
- Include all design iterations and tests, whether they were successfully implemented or not.
- Include descriptions of the equipment and/or software used in tests and/or analyses. Software versions are critical as later versions may or may not perform in the exact same manner.
- Line out errors, never erase.

A format similar to the one shown in the following examples should be used for the Table of Contents and journal entries, unless the employer requires specific guidelines for project documentation. The examples are intended to represent two random pages out of a notebook.

Table of Contents	1	3 1/15/10 Establish Work Objectives (Name of employee, Name of supervisor)
Meeting with supervisor to establish objectives Project A – mechanical specifications Project C – project time lines	3 4	Discussed potential projects for the internship. Five projects, A, B, C, D, and E were considered Funding for Project B will not be available until the middle of next month. The remaining projects meet internship requirements but only 3 were needed so A, C, and D were selected. Project A: Project Responsibilities include Project C: Project Responsibilities include Project D: Project Responsibilities include Project D: Project Responsibilities include 1/17/10 Project A Mechanical Specifications (Name of individuals involved in effort) Dimensions measured on the field unit.

# Final Presentation: 10 points (~9% of total course grade)

## Student Learning Outcome #4

Each student must document their internship experience in a final technical presentation.

#### Assessment Method:

Presentation Length:15 – 20 minutesVisual Aids:The presentation must include 6 – 9 slides, created in PowerPointMaterial Content:The presentation package must follow the following outline:Cover Sheet (1 slide)This should include the course number and title, your name, and date as a minimumOverview of the Work Environment (1 slide)Include the company name, your title/position, and a brief description of the work groupWork Objective #1 (1-2 slides)Include an overview of the project / activity, result(s), etc.Work Objective #2 (1-2 slides)Include an overview of the project / activity, result(s), etc.Work Objective #3 (1-2 slides)Include an overview of the project / activity, result(s), etc.

Conclusions / Summary (1 slide) Brief description of the benefits of the internship experience, both for you and the employer, including skills learned or classroom and laboratory principles you were able to put into practice.

### Seminar Participation & Assignments: 29 points (~27% of total course grade)

Student Learning Outcome #3, #4

In addition to working a minimum of 100 hours in an industry setting, each student is required to participate in weekly seminar activities / assignments. Seminar activities are designed to complement and support the work experience.

Assessment Method: The points assigned to each activity (1 - 10 pts) will be awarded as a completion grade if the activity/assignment is completed per the instructions and by the assigned deadline.

#### Grading

Total points possible for semester	109 pts
Final presentation	10 pts
Engineering notebook & work log	10 pts
Seminar participation & assignments	29 pts
Work projects and/or activities (3 total)	60 pts (20 pts/project)

Total points possible for semester

- 98 109 points А 87 – 97 points В 76 – 86 points С 65 – 75 points D
- < 65 points

## **TECHNOLOGY REQUIREMENTS**

This is a web based course. The following technologies will be required for this course.

- MicroSoft Word
- MicroSoft Excel (optional for work log)

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MicroSoft PowerPoint

## ACCESS AND NAVIGATION

This course is delivered by Texas A&M University – Commerce through the eCollege course management system.

### **COMMUNICATION AND SUPPORT**

#### Interaction with Instructor Statement:

The communication tools used in this course will be Email and eCollege Announcements. Students should communicate with the instructor through the course email tool or directly to the email address provided in this syllabus. The instructor will communicate with students via email through their myLeo email address.

Students can expect to receive a response to emails within 48 hours after the email was sent to the instructor. In most cases, the response time will be shorter.

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the eCollege HelpDesk, available 24 hours a day, seven days a week. The HelpDesk can be reached by at <u>helpdesk@online.tamuc.org</u> or by calling (toll-free) 1-866-656-5511.

### COURSE AND UNIVERSITY PROCEDURES/POLICIES

#### **Course Specific Procedures:**

#### **Academic Dishonesty**

Texas A&M University-Commerce will not condone plagiarism in any form. Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work can result in a "0" on a given assignment(s) or an "F" for the course as well as further administrative sanctions permitted under University policy. You may discuss course work and other course materials with fellow students (except during tests), but it is inappropriate to have another student do your course work or provide you with any portion of it.

Guidelines for properly quoting someone else's writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term "plagiarism", or if you have difficulty summarizing or documenting sources, contact your professor for assistance.

#### **University Specific Procedures:**

#### **ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services Texas A&M University-Commerce Gee Library 132 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 <u>StudentDisabilityServices@tamu-commerce.edu</u> Student Disability Resources & Services

## Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

Students are expected to attend all class periods and to be prepared for each class. Students are expected to refrain from any disruptive behaviors during class, which includes but is not limited to working on assignments/projects from another course, reading non-course materials, or using the computer for non-class purposes. Cell phones, iPods, and other electronic devices should be turned off during class.

# **COURSE OUTLINE / CALENDAR**

In addition to working a minimum of 100 hours in an industry setting, each student is required to participate in a weekly seminar. Seminar activities are designed to complement and support the work experience.

	Topic	Assignment(s)
Week 1	- Course introduction	- Create a template for a work log
	<ul> <li>Project documentations</li> </ul>	template
		- Format an engineering notebook
Week 2	<ul> <li>Develop work objectives</li> </ul>	- Meet with supervisor to jointly
		develop 3 work objectives
		(projects and/or specific tasks)
Week 3	- What employers look for in new graduates	- Research and discussion
Week 4	<ul> <li>What employers look for in new graduates</li> </ul>	- Summary report
Week 5	- Personality Styles	- Self-assessment and discussion
Week 6	- Life-long learning	- Graduate school requirements
Week 7	<ul> <li>Emerging technology</li> </ul>	- Research and discussion
Week 8	<ul> <li>Emerging technology</li> </ul>	- Research and discussion
Week 9	- Technical Presentations	- Research and discussion
Week10	- Interviewing	- Research and discussion
Week 11	- Interviewing	- Summary report
Week 12	- Resume writing	- Research and discussion
Week 13	- Resume writing	- Resume
Week 14	- Engineering Ethics	- Research and discussion
Week 15	- Final	- Student presentations and/or final
		technical report
Week 16	- Final (as needed)	- Student presentations and/or final
		technical report