



## **CONE 422 – CONSTRUCTION ENGINEERING MANAGEMENT**

Fall Semester 2014

### **COURSE DESCRIPTION**

Study of construction operations, project management and project planning. Includes project selection, estimating bidding, scheduling, subcontracting practices, cost controls, project documentation, construction bonds, insurance, payments, elements of close out and reporting of an engineering project. Prerequisites: CONE 425.

### **PROFESSOR**

**Nilo Tsung** CEng, PE, PhD  
Assistant Professor  
Department of Engineering and Technology  
College of Science and Engineering

### **CONTACT INFORMATION**

**Office:** Room 204, AG/IT Building

**Office Hours:** 2:30 – 5:00 PM Tuesdays and Wednesdays or by appointment

**Office Telephone:** 903-886-5464

**E-mail:** [nilo.tsung@tamuc.edu](mailto:nilo.tsung@tamuc.edu)

**Department fax number:** 903-886-5960

### **CLASS MEETINGS INFORMATION**

**Time:** 11:00 – 11:50 AM Monday, Wednesday, and Friday

**Location:** Ag/IT 118 A

### **COURSE OBJECTIVES**

1. Learn plan reading and quantity takeoff.
2. Learn to develop a network model, precedence diagrams, arrow diagrams, and PERT.
3. Learn determination of activity durations, resource allocation and resource leveling, and money in network scheduling.
4. Learn computer scheduling.

## **REQUIRED COURSE MATERIALS**

### **Required Textbook:**

Hinze, J. W. (2012). *Construction Planning and Scheduling* (4<sup>th</sup> edition). Upper Saddle River, New Jersey: Prentice Hall. ISBN-13: 978-0132473989

### **Optional Textbook:**

Frank R. Walker Company. *Walker's Building Estimator's Reference Book*.

## **ATTENDANCE POLICY**

Every student is expected to attend all classes to acquire the information and knowledge covered in the class. Students themselves are responsible to obtain the materials covered in the classes they have missed. No effort will be made by the instructor to track down missing students and/or assignments.

## **HOMEWORK ASSIGNMENT POLICY**

A grade of "0" will be assigned to late assignments, unless prior arrangements are worked out with the instructor. The instructor has the final decision on whether late work will be accepted. Late penalties will be assessed to any approved late work.

## **COURSE GRADING**

Attendance and class participation: 10%

10 Quizzes: 30%

Midterm exam: 30%

Final exam: 30%

## **GRADING SCALE**

90-100%: A;

80-89%: B;

70-79%: C;

60-69%: D;

<60%: F.

## **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.

## **STUDENT BEHAVIOR**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. Students are expected to be fully compliant with the Code of Student Conduct, defined in the current Student Guidebook.

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.

## **STUDENTS WITH DISABILITIES**

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**

**Room 132**

**Phone (903) 886-5150 or (903) 886-5835**

**Fax (903) 468-8148**

**[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)**

**COURSE SCHEDULE** (following schedule is subject to change)

<b>Week No. &amp; Dates</b> (mm/dd – mm/dd)	<b>Weekly Contents</b>	<b>Reading Assignments</b>
1 (8/24-8/30)	<ul style="list-style-type: none"> <li>• Understand course objectives and policies</li> <li>• Historical development of planning and scheduling</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 1</li> </ul>
2 (8/31-9/6)	Labor Day (9/1, Mon.; holiday and no class) <ul style="list-style-type: none"> <li>• Plan reading</li> </ul>	Handouts
3 (9/7-9/13)	<ul style="list-style-type: none"> <li>• Quantity takeoff</li> </ul>	Handouts
4 (9/14-9/20)	<ul style="list-style-type: none"> <li>• Developing a network model</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 2</li> </ul>
5 (9/21-9/27)	<ul style="list-style-type: none"> <li>• Precedence diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 3</li> </ul>
6 (9/28-10/4)	<ul style="list-style-type: none"> <li>• PERT</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 15</li> </ul>
7 (10/5-10/11)	<ul style="list-style-type: none"> <li>• Arrow diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 16</li> </ul>
8 (10/12-10/18)	<b>Midterm</b>	
9 (10/19-10/25)	<ul style="list-style-type: none"> <li>• Computer scheduling</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 9</li> </ul>
10 (10/26-11/1)	<ul style="list-style-type: none"> <li>• Determining activity durations</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 4</li> </ul>
11 (11/2-11/8)	<ul style="list-style-type: none"> <li>• Time in contract provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 5</li> </ul>
12 (11/9-11/15)	<ul style="list-style-type: none"> <li>• Resource allocation and resource leveling</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 6</li> </ul>
13 (11/16-11/22)	<ul style="list-style-type: none"> <li>• Money and network schedules</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 7</li> </ul>
14 (11/23-11/29)	<ul style="list-style-type: none"> <li>• Final project preparation</li> </ul> Thanksgiving Holidays on 11/27 (Thur.) and 11/28 (Friday) no class	
15 (11/30-12/6)	<ul style="list-style-type: none"> <li>• Final project preparation</li> </ul>	
16 (12/7-12/13) Finals week	<b>Final exam</b> Will be held on the date scheduled by the University for the final exam.	