

# Engineering & Technology Education Department

## Course Syllabus

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### ETE 1040 – Construction and Estimating

Spring 2009

**Instructor:** Ward Belliston  
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**Office Hours:** by appointment  
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**Course #:** ETE 1040  
**Class Room:** IS 006  
**Meeting Time:** T,TH 1:30-4:20 pm

#### COURSE DESCRIPTION

**Construction and Estimating** - An overview of the construction industry and its practices. Reviews four major parts of the construction industry including: 1) materials, 2) design and building of structures, 3) sites, buildings, etc., and 4) effects of building systems. Provides prospective technology education teachers with opportunity to study and perform activities related to the field of construction and estimating. At the completion of the course:

- a. Each student will be able to identify, describe, and use the tools that are common to the building construction industry.
- b. Each student will be able to describe and practice the correct methods of construction and the related codes.
- c. Each student will know the characteristics and functions of materials that are common to the building construction industry and the related codes.
- d. Each student will know specifications, regulations, and building codes applied to construction, estimation, layout, and practical experience in light construction.

#### METHODS TO BE USED:

The methods to be used include ***laboratory experiments and projects, field trips, and discussions***. Attendance is important in order to complete the required assignments.

#### ASSIGNMENT GENERAL INFORMATION:

- a. Each student will participate in the building construction project planned for this course.
- b. Each student is responsible for the reading assignments and exams. There will be a midterm and a comprehensive final exam.
- c. Each student will be responsible to complete the individual projects/assignments during the semester.

**TEXT:** Wagner & Smith. "Modern Carpentry", 2003. Goodheart - Wilcox Publisher.

## **Course Requirements:**

1. Attend classroom and laboratory presentations.
2. Complete all assignments, both individual and team.
3. Take all exams.
4. Follow safety practices and participate in all clean-up activities.

## **EVALUATION METHOD (Course)**

Team Assignments	- 50%
Assignment	- 25%
Exams (Midterm/Final)	- 25%
<b>Total</b>	<b>100%</b>

**Note:** All Problems/Projects are due at the assigned times. No late assignments will be accepted.

Team work is an important aspect of the course. In an ideal situation each member of the team will share the same grade; however, the instructors reserve the option to alter an individual's grade based on his or her level of participation and performance.

Points earned will be totaled and weight has indicated above. An overall percentage will be calculated and grades assigned as follows:

90% and above A  
80% to 89% B  
70% to 79% C  
60% to 69% D  
59% and below F

NOTE: Plus and minus letter grades will be assigned to the upper and lower two scores in each of the ranges listed above (e.g., a score of 88% or 89% will receive the letter grade of B+ and a score of 80% or 81% will receive the letter grade of B-).

Course grades are entered electronically and are recorded on the student's transcript. Students wishing to see their course grade may view their transcript via the web.

## **ATTENDANCE:**

Attendance at all class periods is a requirement of the course. Students are expected to attend class and lab for the entire time scheduled. Role will be taken at the beginning of each class session. Tardiness and/or unexcused absences will affect your final grade.

## **FINAL EXAM**

As per final examinations schedule.

## **REQUIRED MATERIALS**

- Three ring notebook for supplemental materials
- Safety Glasses
- Tape Measure
- Gloves

## **FEES**

There is a \$15 lab fee paid when registering for the course. This fee is used for consumables including materials, tooling and damaged components.

## **SPECIAL NEEDS:**

If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats, i.e. large print, audio, diskette, or Braille.

## **ACADEMIC INTEGRITY:**

All students are expected to adhere to the USU Student Code (<http://www.usu.edu/stuserv/scode/>). Under this code, cheating, falsification, and plagiarism are subject to disciplinary action.

## **COURSE CALENDAR: (Tentative):**

<b><u>Week</u></b>	<b><u>Lab/Lecture</u></b>	<b><u>Readings</u></b>
1	<b>Orientation/Logistics</b> <i>Introduction</i> <ul style="list-style-type: none"><li>• Building Material</li><li>• Safety</li><li>• Hand Tools</li><li>• Power Tools</li></ul>	Handout  Unit 1 Unit 2 Unit 3 Unit 4
2	<b><u>Site Work</u></b> <ul style="list-style-type: none"><li>• Plans, Specifications &amp; Codes</li><li>• Leveling Instruments</li><li>• Footings and Foundations</li><li>• Estimating</li></ul>	Unit 6 Unit 5/Handout Unit 7/Handout Handout
<b>TEAM ASSIGNMENT #1 (10)</b> <b>TEAM ASSIGNMENT #2 (10)</b>		

<u>Week</u>	<u>Lab/Lecture</u>	<u>Readings</u>
3,4,5	<u><b>Wall Systems</b></u> <ul style="list-style-type: none"> <li>• Floor Framing</li> <li>• Design &amp; Layout (Team Project)</li> <li>• Video (Framing)</li> <li>• Framing (Wall &amp; Ceilings)</li> <li>• Video (Construction)</li> <li>• Roof Framing</li> <li>• Estimating</li> </ul>	Unit 8/Handout Handouts Unit 9/Handout Unit 10/Handout Handout
<b>Team Project Work</b> <b>TEAM ASSIGNMENT #3 (10)</b> <b>ESTIMATING ASSIGNMENT (50)</b>		
6	<u><b>Closing In</b></u> <ul style="list-style-type: none"> <li>• Roofing Materials and Methods</li> <li>• Windows and Doors</li> <li>• Estimating</li> </ul>	Unit 11 Unit 12 Handout
<b>Team Project Work</b>		
7	<u><b>Mechanical Systems</b></u> <ul style="list-style-type: none"> <li>• Electrical Wiring</li> </ul>	Unit 26/Handouts
<b>Team Project Work</b> <b>TEAM ASSIGNMENT #4 (10)</b>		
Note: Feb. 17, 2009 – Tuesday – Attend Monday classes		
8	<b>Team Project Work</b> <b>PHOTO ASSIGNMENT (20)</b> <b>MIDTERM EXAM</b>	
9	<b>Team Project Work</b>	
10	Note: No Classes – Spring Break – March 9-13, 2009	
11	<b>Team Project Work</b> <b>TEAM ASSIGNMENT #5 (10)</b>	
12	<b>Team Project Work</b>	

<u>Week</u>	<u>Lab/Lecture</u>	<u>Readings</u>
13	<b><u>Finishing</u></b> <ul style="list-style-type: none"> <li>• Insulation</li> <li>• Door and Interior Trim</li> </ul> <b>Team Project Work</b>	Unit 14 Unit 18
14	<b>Team Project Work</b>	
15	<b><u>Special Construction</u></b>	Unit 25/Handouts
16	<b>Team Projects</b> <b>TEAM NOTEBOOK DUE (50)</b> <b>FINAL EXAM</b>  Note: Last Day of Class: Thursday, April 23, 2009	