

Department of Engineering Technology & Surveying Engineering

Title and Course Number: ET 154, Construction Methods and Communications

Credits and Contact Hours: 3 cr. 46 contact hours -- lecture

Course Description: Introduction to materials, methods, specifications and blueprint reading used in construction.

Prerequisites: None

Textbook: Glover, T.J., *Pocket Reference*, 3rd Ed., Sequoia Publishing, Littleton, Colorado, 2003

Required Tools: Architect's scale, Engineer's scale, Set of triangles, Hard hat.

References: a) Marotta, T.W. and Herubin, C.A., *Basic Construction Materials*, 6th Ed., Prentice Hall, New Jersey, 2002, b) handouts, c) library and internet references, d) construction journals

Coordinator: Sonya Cooper, PhD., P.E., ECIII Rm 386, 646-3848, Office hours: 3:00-4:00 TWTh.

Goals/Objectives: Students will develop a basic understanding of the construction process beginning with vocabulary, reference systems, planning a project, the A/E contract, preparation of plans and specifications, the construction contract, and the construction process through the final punch list. Students will become familiar with construction materials and methods required to complete different types of projects. Students will develop the ability to read and interpret maps, plans and specifications.

<u>Date</u>	<u>Topic(s)</u> (May be delivered in different order)
20 Aug	Intro to CET, Why are you here? Why am I here?
23 Aug	Measurements and Units
25 Aug	Measurements and Units
27 Aug	CET juniors and seniors talk about their summer jobs
30 Aug	Using Scales
1 Sep	Intro to Blueprints, Drawing Views
3 Sep	Types of drawings
6 Sep	Labor Day Holiday
8 Sep	Working with Maps, Topography
10 Sep	Contour Lines and Drainage
13 Sep	
15 Sep	Civil Plans
17 Sep	Field Trip
20 Sep	Types of projects
22 Sep	Types of projects
24 Sep	Construction Materials
27 Sep	Construction Materials
29 Sep	Bridges, Building Big
1 Oct	Exam #1
4 Oct	Design Bridges with West Point Designer
6 Oct	Design Bridges with West Point Designer
8 Oct	Structural Plans
11 Oct	Mechanical Plans (incl plumbing)
13 Oct	Electrical Plans
15 Oct	Field Trip

18 Oct	Quantity Take-Offs
20 Oct	Quantity Take-Offs
22 Oct	Contracts
25 Oct	Contracts
27 Oct	Construction Methods
29 Oct	Construction Methods
1 Nov	Construction Methods
3 Nov	Construction Methods
5 Nov	Advising Day
8 Nov	Water topics
10 Nov	Exam #2
12 Nov	Field Trip
15 Nov	Water topics
17 Nov	Engineering Ethics
19 Nov	Engineering Ethics
22-26 Nov	Thanksgiving Break
29 Nov	Project
1 Dec	Project
3 Dec	Project
TBA	Final

Specifics:

Homework – Homework will generally be assigned once a week. The due date will be one week after the assignment is made. Late homework will not be accepted.

Full credit will not be given unless the homework is presented in a professional manner, i.e. prepared on engineering-type paper or computer generated. The assignment should also be presented in standard engineering format (e.g. Given: “My car gets 23 miles to the gallon. I have to drive to El Paso and back three times a week.” Find: “The number of gallons of gasoline that my car consumes per week.” Figure: ~A drawing showing your car and a map showing the drive from Las Cruces to El Paso. Solution: ~The appropriate calculations with the final answer circled or underlined.)

Exams – There will be three exams given throughout the semester. Make-up exams will only be given if the absence is excused before test day.

Attendance – Attendance is mandatory. Attendance will be taken and absences will be penalized. More than three absences will result in an administrative drop.

Notebook – You will be getting a lot of cool and useful stuff throughout this class, stuff that will come in handy later in your academic and professional careers. As such, you should maintain a notebook. The notebook should contain handouts, plans, class notes, assigned homework problems, reference material you have studied, etc. Separate the material according to the different categories; do not mix. Bind all the material. The notebooks will be graded at the beginning of class on days that exams are given.

Grading – The final letter grade will be based on performance with the approximate weights as indicated:

Homework and Memos	=35%
House Design Project	=10%
Framing Plan Analyses	=10%
Notebook and class participation	=15%
Exams	=25%
Attendance at Student Organization Meetings	=5%