Oklahoma State University Institute of Technology
Face-to-Face Common Syllabus
Summer 2018

ETDG 2623 – BUILDING STRUCTURES

Students create construction documents of structural steel framework and support systems of commercial and industrial buildings using their own design for beam-to-girder and beam-to-column connections. Students calculate dimensional and design information using the Manual of Steel Construction as a reference. Students create fabrication drawings of the individual components of framework and support systems of buildings for manufacturing and delivery to the construction site.

Course Purpose:
The purpose of this class is to learn 2D and 3D Computer Aided Drafting (CAD) using AutoCAD & SDS2 for structural drafting. This will be accomplished by creating steel shapes, steel building frames & drawings by using proven techniques.

Type of Course: Theory/Lab
Credit Hours: 3; Total clock hours of theory per semester: 30;
Total clock hours of lab per semester: 45; Total clock hours of clinical per semester: N/A.
Class Length: Full Semester
Class Days and Times: MWF 8:00 – 9:25AM CST
Prerequisite: ETDG 1253

Instructor Name: Michael Freeman **Instructor Phone:** (918) 293-5052
Office: DWRTC Room #115 **Instructor email:** michael.freeman@okstate.edu
Contact: My preferred method of contact is E-mail. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: Classroom 150 MWF 11:25 – 11:45AM, TR 11:00 – 11:45AM CST

School Name: Engineering Technologies **School Main Phone:** 918-293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Structural Steel Drafting, MacLaughin, Delmar, ISBN #1401890326
References: Manual of Steel Construction
Materials: Notebook, writing utensil, & data storage device
Uniform/Tools: N/A

Estimated Cost for Materials: $235.00
Estimated Cost for Uniform/Tools: N/A

Optional Resources: N/A

Upon completion of the course, students should:

COURSE OBJECTIVES	ASSESSMENT OF COMPETENCY
*Use the Manual of Steel Construction to: • Draw steel shapes. • Identify common steel shape characteristics.	Steel Shapes exercises 1A, 1B, & 1C
Understand the symbols used in structural steel plans and details. Understand the history of Structural Steel.	Quiz #1 & Quiz #2
*****Create a steel framing plan.	
*Draw common connection details.	AutoCAD Project
*Use 3D structural steel software to create a steel frame building.	AutoCAD Project
*Size beams and K-series joists based on information found in the manual.	SDS2 First Project
Extract the necessary information from design drawings to create column fabrication drawings.	Chapter 5 problem #7, #8 & Test #1
Extract the necessary information from design drawings to create beam/girder fabrication drawings.	SDS2 Final Project & Test #3
Create industry standard mark numbers for each fabricated steel member to be used for erection purposes.	Test #3

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this assignment is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- Participate in class discussions and activities.
- Take examinations.
- May be required to do quizzes / in class assignments.

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS: *)*

Projects……25%
*AutoCAD Project
Homework……..…20%
Quizzes (2) Exams (3)…40%
*Final Project…….15%

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Grading Scale

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% & below

*The student's grade for this assignment will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Remember! All technical classes require a 70% or better for graduation**.**

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student by next class meeting or no later than one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPETENCIES/SKILLS

A good working knowledge of file management i.e. save files, create folders & keep track of assignments.

AUTHORIZED TOOLS

N/A

LATE WORK

All assignments will have specific due dates and are expected to be completed by that date. However, I know life gets in the way and grace may be given with a 10% penalty applied to the graded work. The student must contact me ASAP and work out a time to turn in the late work. If a test is missed it is up to the student to work out a time when it can be made up. The penalty will be the same as late work if done in an orderly manner.

TESTING

All quizzes and tests are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty.

OTHER LAB AND CLASSROOM POLICIES

INSTRUCTOR'S POLICY ON ABSENCES

Class lectures will not be repeated. However, percentage point can be earned for perfect attendance i.e. 0 absences = 2%, 1 absence = 1%, 2 absences = 0.5% and 3 or more absences = 0%.

STUDENT CONDUCT

Students are expected to cooperate in maintaining a classroom environment conducive to learning. Courteous and respectful behavior will be expected from all students each day. All pagers, cellular phones, and CD and MP3 players should be turned off. The use of tobacco in any form in University buildings is prohibited.

INSTRUCTIONS FOR SPECIFIC TASKS AND ASSIGNMENTS

Drawing Projects:

A. Drawings will be evaluated according to the following:
   1. Solution to problem
   2. Following of instructions and completeness
   3. Appearance, including neatness, spacing and uniformity
   4. Placement of dimensions
   5. Accuracy

B. Class time will be allotted to work on drawing projects, but may not be enough to complete assignments. **The student will have to schedule time outside of class to work on assignments.**

C. Work can be redone if a grade is not desirable but the markup has to be handed in with the corrections and the average of the two grades will be final grade.

ETD LAB RULES

1. **Video Games:** The playing of video games on division computers **at any time is prohibited.** Students found playing video games on division computers will not only be asked to cease playing the game, but also remove any unauthorized software from the computer or network drive.
2. **Music Files:** Downloading of music files from the Internet to **any media** is **prohibited.** In many cases, this is illegal and may result in liability for the university as well as the individual(s) involved. Listening to music in the computer labs is allowed only if **legal** copies of compact music discs are used. Students must use their own headphones when listening to music. Listening to music during class is at the discretion of the instructor and at **no time** will listening to music be allowed during class discussions or lectures.
3. **Movies:** Downloading and/or playing of movie files from the internet (or any other source) are **prohibited.** In many cases, this is illegal and may result in liability for the university as well as the individual(s) involved.
4. **Pornography:** Downloading and/or display of pornographic materials on division computers and equipment are **prohibited.** Any such material found by faculty or staff will be **immediately** deleted or removed. The use of vulgar or suggestive names for computer files or folders will not be tolerated. Any such material, if found by faculty or staff, will be immediately deleted.

Division computers and equipment are for **educational use only.** It is the intent of the faculty and staff of the ET division to display a positive and professional environment, including the atmosphere of the classroom. It reflects negatively on our division when guests see games, movies, or hear loud or offensive music permeating from our classrooms.

Note: An official copy of the syllabus will be posted on the Online Class Room site and any changes being made to the syllabus in the future will be on this official syllabus.

SYLLABUS ATTACHMENT

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information

It will also be in the Online Classroom (D2L/Brightspace) in the Content – Start Here.

COURSE SCHEDULE

DATE	Building Structures Topics
Friday, May 4, 2018	Introductions, Syllabus & Module 1 - Chp.'s 1 - 4
Monday, May 7, 2018	Module 1
Wednesday, May 9, 2018	Review & Module 1
Friday, May 11, 2018	Quiz #1 & Module 1 - Chapter 1 *Due*
Monday, May 14, 2018	Module 1 - *Due* & Module 2 - AutoCAD Proj. - *Start*
Wednesday, May 16, 2018	Module 2
Friday, May 18, 2018	Module 2
Monday, May 21, 2018	Module 2
Wednesday, May 23, 2018	Module 2

Friday, May 25, 2018	Module 2 - *Due*
Monday, May 28, 2018	No Class Memorial Day
Wednesday, May 30, 2018	Quiz #2 & Module 3 -SDS2 Proj. - *Start*
Friday, June 1, 2018	Module 3
Monday, June 4, 2018	Module 3
Wednesday, June 6, 2018	Module 3
Friday, June 8, 2018	Module 3 - *Due*
Monday, June 11, 2018	Module 4 - Chapters 2 & 5
Wednesday, June 13, 2018	Review & Module 4 - *Chapter 2 Due 6/14*
Friday, June 15, 2018	Test #1
Monday, June 18, 2018	Module 4
Wednesday, June 20, 2018	Module 4
Friday, June 22, 2018	Module 5 - Chapters 8, 9 & 10
Monday, June 25, 2018	No Class Summer Break
Wednesday, June 27, 2018	No Class Summer Break
Friday, June 29, 2018	No Class Summer Break
Monday, July 2, 2018	No Class Summer Break
Wednesday, July 4, 2018	No Class Summer Break
Friday, July 6, 2018	No Class Summer Break
Monday, July 9, 2018	Module 5 & Module 7 Final Proj. - *Start*
Wednesday, July 11, 2018	Module 5 & 7
Friday, July 13, 2018	Module 5 & 7
Monday, July 16, 2018	Review & Module 5 - *Due 7/17*
Wednesday, July 18, 2018	Test #2
Friday, July 20, 2018	Module 6 - Chapters 11, 12 & 13
Monday, July 23, 2018	Module 6 & 7
Wednesday, July 25, 2018	Module 7
Friday, July 27, 2018	Module 6 & 7
Monday, July 30, 2018	Module 6 - *Due 8/2*
Wednesday, August 1, 2018	Module 7
Friday, August 3, 2018	Test #3
Monday, August 6, 2018	Module 7
Wednesday, August 8, 2018	Module 7
Friday, August 10, 2018	Module 7
Monday, August 13, 2018	Module 7
Wednesday, August 15, 2018	Module 7
Friday, August 17, 2018	Module 7
Monday, August 20, 2018	Module 7
Wednesday, August 22, 2018	Module 7 - *Due*
Friday, August 24, 2018	Catch up day if needed

Schedule is subject to change at instructor discretion.