Architecture 158 (Section 7176)
Structures Analysis – Timber
Fall 2014

Course Information	
Course Title	Architecture 158 - Structures Analysis – Timber (Section 7176)
Location	TECH 206
Dates	August 26 – December 9, 2014
Time	Tuesday 8:00 – 11:10 am
Holidays	None
Last date to drop with "W"	November 14, 2014
Instructor	Bruce Cook
Instructor contact	Phone: 310-374-6753 Email: bcook@elcamino.edu
Required text	*Schaum's Outlines, Statics and Strength of Materials* Copyright 1983 by McGraw-Hill
Calculator required.	Scientific calculator capable of exponents and roots of various values.

Course Goal

This course is designed to introduce students to the structural system for a single-family wood frame residence. Emphasis will be on the design of basic structural components including beams, columns, shearwalls, and foundation.

S.L.O.

Upon completion the student will be able to:

- Identify the gravity and lateral load resisting systems in a wood-framed residence.
- Design simple beams, joists and columns for gravity loads.
- Understand the design concepts for lateral load resisting systems.

Points Breakdown

Item	Points Possible
10 Homework Assignments	500 (50 points per HW)
Final Exam	250
Attendance	250
Total	1000

Final Grade

Final grade will be determined based on the following scale:

Earned Points	Letter grade
900-1000	A
800-899	B
700-799	C
600-699	D
000-599	F

Math Skills Required

Basic algebra
Understanding of geometry and trigonometry helpful

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Approximate Course Schedule

Week	Date	Lecture	Read by this date	Homework Due
1	8/26/14	Introduction		
2	9/2/14	Force components and resultants, equilibrium	HO-01, Text 1.1-1.6, 2.1-2.5, 4.1-4.3	HW-01
3	9/9/14	Beam reactions	HO-02	HW-02
4	9/16/14	Beam reactions	HO-03	HW-03
5	9/23/14	Beams: Shear diagrams	HO-04, Text 12.1-12.2	HW-04
6	9/30/14	Beams: Moment diagrams	HO-04, Text 12.1-12.2	Draw shear diagrams for HW-04
7	10/7/14	Stress & strain	Text 8.1-8.4	Calculate maximum bending moment and location for HW-04
8	10/14/14	Beam stress & deflection	HO-06, HO-07, Text 13.1-13.2	HW-05
9	10/21/14	Beam stress & deflection	Lecture only	HW-06
10	10/28/14	Cantilevers	Lecture only	
11	11/4/14	Columns & buckling	HO-08, HO-09, HO-10	
12	11/11/14	Determining loads	HO-11	HW-07
13	11/18/14	Foundation	HO-12	HW-08
14	11/25/14	Lateral systems & loads	HO-13, HO-14	HW-09
15	12/2/14	Review	Lecture only	HW-10
16	12/9/14	Final exam		

Note
No late homework is accepted. There are no makeup exams. Students who show up after roll are late (-15 points). If students do not show up (and do not notify the professor beforehand) will have an unexcused absence (-25 points). Be aware that attendance is a QUARTER of your final grade. If you do not show up, or leave early, you will be docked attendance points as well. Please don't have cell phones on ring mode during lectures. If cell phones ring a warning will be given and 50 points will be assessed thereafter. Students will be assessed 50 points for using cell phones during lecture. You will be responsible to obtain lecture notes from fellow students should you miss a lecture. It is the student's responsibility to drop the class if they choose to stop attending. Do not depend on the professor to drop you if you choose to quit the class.

Final Comments

- It's your responsibility to drop the class should you choose to discontinue the class! If you stop attending class and do not drop you will receive a grade of F.
- No late homework is accepted! It's better to turn in incomplete work than no work.
- There are no makeup exams.
- The instructor will not repeat lectures! If you miss a class it's your responsibility to obtain the lecture material from fellow students.
- Show up for class on time!