Course Policy, Procedures, and Syllabus

Building Construction Program, Georgia Institute of Technology

Course Title:	**Building Structural Analysis**
Course No:	**BC 4620**
Prerequisites:	BC 3640
Semester/Year:	Spring/2011
Instructor(s):	Daniel Kuemmerle
Assistant (if any):	John Fard (jfard@gatech.edu)
Office:	College of Architecture Annex (Building Constructing/GIS Building)
Office Phone:	email only
E-mail Address:	dkuemmerle@gatech.edu
Office Hours:	By appointment only
Required Textbooks:	Structural Design for Architects, 2nd ed. By Underwood & Chiuini
Course Description, Goal, and Objectives:	Steel, concrete, and wood are the main building materials used for the structural design and construction of all structures. The object of this course is to give the student the basic understanding of design standards and principles of each of these building materials, as well as basic understanding of the pros and cons of using each material in specific situations—from a cost perspective as well as each material's impact on the construction phase of the project in terms of schedule and structural stability.

Assignment and Evaluation:
Final grades will be based on an aggregate point total for exams, homework, papers, and/or projects. **Grades will be curved to provide a balance of intellectual challenge and academic reward.** Course grading is as follows:

A	B	C	D	F
90% and above	80%-89%	70%-79%	60%-69%	<60%

Points: The following table summarizes the weighting of the various components of this course. Group presentations will be graded for the entire group, and evaluation of individual team members will become part of the final grade. Make-up exams/presentations are not allowed for any reason. All homework, projects, tests and exam grades will become final one week after they are returned in class. The final exam and project presentation/report are comprehensive.

Class Component	Percent
Homework	15%
Exam #1 (loadings, and steel)	15%
Exam #2 (concrete)	15%
Exam #3 (wood)	15%
Group Project Project/Report	15%
Final Exam (all course material)	25%
TOTAL	**100%**

Course Outline

General Topic	Specific Topic	Recommended Reading in Text	Approximate Class Time Dedicated to Topic
BC 3640 Review			2 classes
Loads	*Cases, Combinations, Reductions*	Chs. 1 & 2	2 classes
Structural Steel			
	Beams	Chs. 3, 6, & 7	2 classes
	Columns	Chs. 11, 12, & 13	2 classes
	Bars Joists, Metal Deck, and Light Gauge	Ch. 5	2 classes
Exam #1 covering Loads and Structural Steel (Feb. 15th)			
Reinforced Concrete			
	Slabs and Beams	Chs. 27, 29-33	3 classes
	Columns	Ch. 35	3 classes
	Footings and Walls	Chs. 34 & 36	2 classes
Exam #2 covering Reinforced Concrete (March 17th)			
Wood			
	Beams	Chs. 17 & 19	2 classes
	Columns	Ch. 22	2 classes
	Diaphragms & shearwalls	Ch. 20	2 classes
Exam #3 covering Wood (April 19th)			
Temporary Building Systems	*Covered here specifically, but also incorporated into other course blocs*		2 classes
Final Exam covering all course topics (May 3rd 2:50 pm – 5:40pm)			

BC4620	Assignment #	Name: *(Last, First)*	1/1

Problem #
Problem Statement

(Draw Diagram of Problem)

(Calculations-as many pages as needed)

Answer *(enclosed in box)*

Assignment Requirements:

1. Place at the top of each page:
   - Class Name
   - Assignment Number
   - Your Name (last, first)
   - Current page number/total pages in submission
2. Problem number and statement/description
3. Problem diagram
4. Show all work
5. Place answers to right of page with a box around it
6. Work shall be in pencil and shall be neat (illegible work and answers shall receive no credit)
7. When complete, staple the top left corner, fold in half lengthwise, and write your name on the outside front (last, first)

COURSE POLICIES

In the following policies, 'you' indicates the 'student' and 'instructor' means 'faculty' or 'professor.'

Assignment Deadlines: All assignments given are due on the date indicated. All students are expected to complete any and all assignments given. The instructor reserves the right to modify assignments as necessary. You will not receive credit for late assignments (homework, projects, readings, and others). However, the instructor will accept and correct these assignments, in order to provide you with feedback that will be beneficial in the learning process. **NO EXCEPTIONS.**

Class Attendance Policies: Due to the amount and difficulty of the class material, attendance and participation is crucial to student success. However, attendance will not be taken (except in the case of field trips as discussed below). In the case of unavoidable absences, you are responsible for making up the work done in class. It is not the instructor's responsibility to provide the student with that information outside of class. It is your responsibility to obtain any missed information or handouts given in class from a classmate and you should exchange phone numbers or e-mail addresses with other students in the class to better facilitate note sharing, etc. No companions, friends, family, or pets are permitted in class.

Methods of Communicating: You can submit all written work to the instructor in class, in hard copy or by e-mail, if allowed by the instructor (the assignment must be received by the deadline given). You can also ask questions and ask for clarification by e-mail, in class, or by visiting the instructor by appointment at his/her office. Students are not permitted to discuss grades with the instructor via e-mail, only in-person. The primary method of communicating class announcements, schedule changes, etc. will be via the class page in the Georgia Tech T-Square system. **It is the student's responsibility to monitor this site regularly as some of this information might not be discussed in class.**

Method of Instruction: The course may consist of a combination of lectures, discussion, guest speakers, site visits, videos, labs, and teamwork.

Readings, Preparation and Participation: The reading assignments, problems cases and discussion forums are an integral element of the course. Students are expected to complete readings and other assigned work prior to each class, in order to fully participate in the discussion. The lectures may not explicitly follow the assigned book reading, but are designed to bring together diverse information from various sources.

Field Trips: Field trips visits are mandatory and are meant as an enrichment experience. Field trip locations will be announced prior to the scheduled visit. It is the student's responsibility to wear hard-toed shoes, hard hats, protective eye cover (on certain sites) and long trousers/slacks during the field trip. Students are required to fill out and sign the Georgia Tech's "Release and Waiver of Liability" form, as well as any other forms required by the company whose site is being visited. The instructor might assign homework based on the site visit and/or count site visit attendance towards the student's homework grade.

Electronic Devices (Laptop, Handheld Computer, Cell Phones, Audio Recorders, etc.): No personal electronic devices may be used in class unless prior approval has been granted. Cell phones

must be turned off during class. Students found using electronic devices during class without prior approval will be asked to leave the classroom for the remainder of the class period. Abuse of this policy will result in the prohibition of laptop use by this student.

Make-up Exams: There will be no make-up exams under any circumstances, except medical reasons or official school business. Provide your instructor with a letter from your medical doctor or faculty representative (as appropriate) to schedule a make-up exam.

Food and Drink in the Classroom: Students are not allowed to bring food or drinks into classroom unless approved by the instructor.

Class Discussions: Your active and productive participation in class discussions is encouraged. Various viewpoints and opinions are encouraged and welcome. Questioning the ideas of others, including the instructor, is similarly welcome. However, the instructor will exercise his/her responsibility to manage the discussions so that ideas and argument can proceed in an orderly fashion. If your conduct during class discussions seriously disrupts the atmosphere of mutual respect, you will not be permitted to participate further.

Instructor's Absence or Tardiness: Class will only be considered canceled if the instructor or his/her substitute arrives more than 20 minutes after the official class start time, or if the instructor announces a cancellation through T-Square, email, etc. If class is canceled, any assignments or exams will be rescheduled for the next class session, unless otherwise announced by the instructor.

Plagiarism: Students are expected to do their own work in this course. To use another writer's or speaker's ideas without giving proper credit by means of standard documentation is plagiarism. All course papers, notes, homework, and projects submitted to the instructor are subject to textual similarity review for the detection of plagiarism. All submitted papers will be included as source documents in the reference database for the purpose of detecting plagiarism of such papers. The instructor will follow the Institute's policy for plagiarism.

Academic Misconduct/Honor Code: Students in this course are responsible for behaving in accordance with the Georgia Tech Academic Honor Code. The Institute Student Honor Code is printed in the Georgia Tech General Catalog, as well as available on the Web at: www.honor.gatech.edu.

Disabilities: Any student that may need an accommodation for any sort of disability should contact the ADAPTS Office: Assistant Dean/Coordinator for Students with Disabilities, Smithgall Students Services Building, Suite 221. The phone number is (404) 894-2564.

Computer Specifications: For information on computer specifications to meet Georgia Tech standards, visit www.coa.gatech.edu/computing/comp_specs.htm. Internet access is required for this course, as is an e-mail account for communication with the instructor.

Policy Changes: Information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.

BC 4620
Building Structural Analysis
Spring 2011
Daniel Kuemmerle

To permit me to return your graded homework, quizzes, exams, and other assignments to the bin located in the BC building or in class, you must sign the waiver statement below and return it to Daniel Kuemmerle or John Fard. If you do not want your graded work placed in the bin, or if you fail to give us a signed waiver form, you may pick up your work in my office by appointment only.

FERPA WAIVER

Daniel Kuemmerle and/or John Fard have my permission to place my graded homework, quizzes, exams, and other assignments in the student bin in class or in the BC building for this class—BC 4620, Building Structural Analysis, Spring 2011.

Signature_____ Date:_____

Print your name with Student ID#:_____