

Course Policy, Procedures, and Syllabus

Building Construction Program, Georgia Institute of Technology

Course Title:	Construction Technology II
Course No:	BC 2620
Prerequisites:	BC 2610
Semester/Year:	Spring 2011
Instructor(s):	Javier Irizarry, Ph.D., P.E.
Assistant (if any):	Masoud Gheisari, Laura Florez-Perez
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Office Hours:	By appointment only.
Required Textbooks:	<u>Building Construction: Principles, Materials, and Systems</u> , Madan Mehta, Walter Scarborough, Diana Armpriest. 2009 Update, Prentice Hall, 2010
Recommended Readings and References:	<u>Soils in Construction</u> , 5 th Edition, W. L., Schroeder, S.E. Dickerson & D.C. Warrington, Prentice Hall, 2004 <u>29 CFR OSHA 1926 Construction Industry Regulations</u> , 2002 <u>Construction Safety</u> , J. Hinze, 1997, Prentice Hall <u>International Building Code</u> , International Code Council, 2006 edition. <u>Construction Equipment Management</u> , Schaufelberger, 1999, Prentice Hall <u>Principles and Practices of Commercial Building Construction</u> . 8 th Edition, C.K. Andres and R.C. Smith.
Course Description, Goal, and Objectives:	<p>An introduction to the planning and physical development process for the construction of commercial projects. The goal of the course is to provide a broad background and general knowledge through the following objectives:</p> <p>To achieve a basic understanding of the commercial and heavy/industrial segments of the construction industry.</p> <p>To understand the importance of building codes and safety standards, especially the International Building Code (IBC) and the Code of Federal Regulations (29 CFR 1926) for Construction Safety.</p> <p>To gain an appreciation for the importance of concrete and concrete formwork design in commercial/heavy construction.</p> <p>To become familiar with all commercial building systems (structural, mechanical, and electrical)</p> <p>To become familiar with various types of construction equipment and their use.</p>

Assignment and Evaluation:

Final grades will be based on an aggregate point total for exams, homework, lab work, papers, quizzes, classroom participation, and/or projects. **Grades will NOT be curved.** 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 points for this course. Make-up exams are not allowed for any reason. All lab problems, homework, and exam grades will become final one week after they are returned in class or made available in T-Square.

Item	Points	Percentage
Lab Exercises, Field Trip and Guest Speaker attendance and reports	150	15
Quickfire Challenges	300	30
Research Project	150	15
Quiz 1	100	10
Quiz 2	100	10
Quiz 3	100	10
Final Exam - Cumulative	100	10
TOTAL	1,000	100

Course Schedule*

Text/Topic/Reading Assignment KEY:

A: Building Construction: Principles, Materials, and Systems, Madan Mehta, Walter Scarborough, Diana Armppriest, 2009 Update, Prentice Hall, 2010

H: Handouts and/or Lecture Notes

Class	Date	Topic or Subject	NOTES
1	1-10(M)	Administrative Matters, Introduction and Course Overview-H	
2	1-12(W)	Guest Speaker- Construction Safety-H	
3	1-14(F)	Lab - Construction Safety - Videos	@IBS
4	1-17(M)	MLK-No Class	
5	1-19(W)	Introduction to the Building Code 1-H	
6	1-21(F)	Lab - Earthwork Problems - Experiment Setup Instructions	IRB, Training Evidence Due, Lab Exercise 1 - Excavation - Assigned
7	1-24(M)	Introduction to the Building Code 2-H	
8	1-26(W)	Introduction to the Building Code 3-H	
9	1-28(F)	Lab	Experiment Day 1, Lab Exercise 1 - Excavation - Due
10	1-31(M)	Earthwork 1-H	
11	2-2(W)	Earthwork 2-H	
12	2-4(F)	Lab	Experiment Day 2
13	2-7(M)	Earthwork 3-H	
14	2-9(W)	Lifting Equipment - Cranes-H	Quiz Wrapper Pre, Lab Exercise 2 Assigned
15	2-11(F)	Quiz 1 - Lower levels (site safety, code, soil and excavation)	
16	2-14(M)	Foundations -- CH21-A	Quiz Wrapper Post
17	2-16(W)	Foundations -- CH21-A	
18	2-18(F)	Lab	Experiment Day 3, Lab Exercise 2 - Cranes- Due
19	2-21(M)	Structural concrete - CH20-A	

20	2-23(W)	Structural concrete - CH20-A	
21	2-25(F)	Lab	Experiment Day 4
22	2-28(M)	Structural concrete - CH20-A	
23	3-2(W)	Structural Steel - CH 16-A	
24	3-4(F)	Lab	
25	3-7(M)	Structural Steel - CH 16-A	
26	3-9(W)	Structural Steel - CH 16-A	Quiz Wrapper Pre
27	3-11(F)	Quiz 2 - Structure (foundation, steel, concrete, cranes)	
28	3-14(M)	Infiltration - CH25-A	Quiz Wrapper Post
29	3-16(W)	TBD	
30	3-18(F)	CEFGA EXPO	
31	3-21(M)	Spring Break	
32	3-23(W)	Spring Break	
33	3-25(F)	Spring Break	
34	3-28(M)	Curtain Walls - CH30-A	
35	3-30(W)	Roofing - CH31-A	
36	4-1(F)	Research Experiment Presentations	
37	4-4(M)	Roofing - CH31-A	
38	4-6(W)	Guest Speaker-MEP	@ASC Conference
39	4-8(F)	Lab	
40	4-11(M)	Guest Speaker-MEP	@ASEE Conference (tentative)
41	4-13(W)	Exterior Cladding 1 - CH26-A	
42	4-15(F)	Lab - Electrical Training Center	
43	4-18(M)	Exterior Cladding 2 - CH26-A	
44	4-20(W)	Exterior Cladding 3 - CH27-A	Quiz Wrapper Pre
45	4-22(F)	Quiz 3 - Services and Finishes (MEP)	
46	4-25(M)	Floor Coverings - CH34-A	Quiz Wrapper Post
47	4-27(W)	Ceiling Finishes - CH35-A	
48	4-29(F)	Lab-Last Day of Class	
49	Finals Week 5-1 to 5-6	Final as Scheduled by Registrar	

***The Course Instructor reserves the right to modify the course schedule to better serve the needs of students.**

COURSE POLICIES

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

Policies and Expectations: This course will be an intense and sometimes frustrating educational experience; it is necessary that we all contribute to its success by following the course policies. You should not only be in class, but also strive to participate in class discussions when appropriate.

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: Attendance is mandatory for all class lectures, labs, site visits, and exams, unless you are ill or officially excused by the instructor as the result of participation in a university function. There are no "free cuts" permitted and there will be a penalty (as decided by the instructor) for not attending the class. 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. Students are not permitted to discuss grades with the instructor via e-mail, only in-person.

Method of Instruction: The course may consist of a combination of lectures, discussion, guest speakers, site visits, videos, presentations by industry professionals, 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. Learning is approached as a participatory process, which benefits from student/teacher and student/student interaction. 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.

Laptop/Handheld Computer Use: Laptop/handheld computers may be used in class to take notes ONLY, but not for other purposes, such as e-mail, Web site searches, chat, or other personal uses. Students using computers during class for work not related to that class must 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.

Cell Phones: All communication devices must be turned off in the classroom. The use of cell phones, beepers, or other communication devices is disruptive, and is therefore prohibited during class. No personal listening devices or personal transportation devices are permitted.

Make-up Exams: There will be no make-up exams under any circumstances, except medical reasons. Provide your instructor with a letter from your medical doctor 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: If the instructor is late in arriving to class, you must wait a full 20 minutes after the start of class before you may leave without being counted absent, or you must follow any written instructions the instructor may give you about an anticipated absence or tardiness.

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.

Supplemental Policies:

The following supplemental policies (if any) will supersede the previous policies listed above, at the discretion of the instructor.

Exams:

Exams are **closed book and closed notes** except for one (8 1/2" X 11") information sheet, both sides, with **no photocopying and no sharing**. Make up exams **will not be given**. If you miss an exam, the exams taken will be weighted to count for **the total of all scheduled exam points**.

Quickfire Challenges

These are unannounced class problems related to lecture and assigned reading materials. Students will work in teams during class time to solve a problem given during class. Students will be required to present or discuss their solutions during class. These are **open book (or references) and open notes**. Due to the nature of these tests, make ups **will not be given**. If you miss a Quickfire, the ones taken will be weighted to count for **the total of all Quickfire points**.

Grade Revision Requests:

Any request for grade revision must be made in writing (typed and using formal language written like a business letter) and delivered to the course instructor or to department personnel in person (**no email, no fax**) before the one-week deadline. After the one-week deadline, students waive their rights for appeals. The request for grade revision must include the name of the student, the assignment or test in question, description of the item in question, and the reasons for requesting the revision. Students must present their argument clearly and substantiate with evidence. The course instructor will evaluate the request and take appropriate action.

Review Questions and Practice Problems:

Review questions and practice problems will not be collected or graded but similar questions may be included on exams so students are strongly advised to work all review questions assigned.

Specific Homework or Assigned Lab Problem Requirements:

Assigned work must be prepared using computer software such as MS Word, MS Power Point and/or applicable multimedia application. Cover sheets shall accompany all assignments submitted by students. Cover sheets shall list the course number, instructor, date, student names and e-mail addresses, and subject of report. Make sure the cover page information is centered horizontally and vertically and that you use Arial 16pt size. When indicated, reports must include a table of contents, a table of figures and tables, and all figures and tables included in the report must use captions, which have to be referenced in the body of your report. Students are responsible for turning in assignments that are grammatically correct. Misspellings and grammar mistakes will be taken into consideration when assigning grades. Students shall proof-read their work before submitting it for grading. Specific details for content of homeworks will be provided at the appropriate time.

Course Management:

T-Square will be used for managing this course. All communications will be done using this system. Email may be used for other questions of a more individual or personal nature (grades and absences mainly). Please make sure that you include BC2620 in the subject line so my email filters identify the message. All course material will be available in the system as well as all grades for all work related to this course. Electronic communication by any other means will not be accepted. Allow 24 hrs for a reply to your e-mail message. E-mails that are received after 2:00pm on Friday will be answered on the following Monday.