

ARE 102 (15010) INTRODUCTION TO ARCHITECTURAL ENGINEERING

Fall 2018

Instructors: Dr. Atila Novoselac, ECJ 5.430
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Classroom: CPE 2.218

Meeting Time: Tuesday, 11 am -12 pm

Office Hours: Dr. Novoselac Tuesday 2 pm -3 pm and Thursday 1 am -12 pm, other hours by appointment

Student Assistant: Will be announced

Prerequisite: A major in architectural engineering, civil engineering, or architecture, or consent of instructor.

Texts: ***How Buildings Work***, Edward Allen, Oxford Press, 3rd Edition, 2005, ISBN13: 9780195161984; ISBN10: 019516198X
Other readings may be assigned during the semester.

Objectives & Academic/Learning Goals of Course:

The course is designed with several academic goals in mind:

1. To help you become familiar with the role of architectural engineers in society.
2. To enable you to get to know faculty and students
3. To assist you in your transition to UT Austin and to the ArE major.
4. To provide an overview of the ArE curriculum at UT Austin.

Grading:	Assignments and Reports	30%
	Class Attendance	20%
	Project: Model of Wood Framing	20%
	Two exams on reading and lectures	30%
		100%

Final grades will be based on the + or – system, e.g. A-, B+

Grading percentages:

90-100 A-, A

80-90 B-, B, B+

70-80 C-, C, C+

60-70 D-, D, D+

< 60 F

Assignments and Reports include keeping an ARE 102 notebook of your class notes (lecture highlights) for the semester. The notebook will consist of:

- Handwritten or typed notes of each lecture. The notes need to be about one page for each lecture. You do not need both written notes and copies of slides, but you may wish to make notes on the slides instead of writing in page format.
- Typed one-page summary of at least one Architectural Engineering Institute meetings (or ASCE or other approved society if you can't make an AEI meeting - verify alternatives with the TA). Put this at the very front of your ARE 102 notebook to be turned in at the end of the semester.
- Typed one-page summary of at least one visits to the Learning Skills Center during the semester. You also need to put a copy of this at the very front of your notebook.

The notebook is due to be turned in during the last class period on November 30.—if late 10% per day will be deducted. It will not be accepted after Dec. 5. The notebook is not to be a three-ring binder—it is to be a paper binder that is thin. We have difficulty carrying all of the binders back to our office when thick binders are used.

Class Attendance will be recorded during each class and the grade score will be based on this record.

Exams: Instead of the final exam at the end of the semester there will be two in-class exams. The two exams will be short exams, 20 minutes in length; the first exam will cover the reading assignments and lectures from the beginning of the course and the second exam will cover reading and lectures from the first exam. They will be multiple-choice or short answer and open book. Refer to the reading schedule on page 3 for the material to be covered on each exam.

Project: The course project is the wood model project, and it will be assembled by the students individually or in teams using small scale wood members glued together. The model will be a small wood framed structure such as a small cabin or large shed. Project details will be provided in class related to Residential Construction.

Academic Honesty:

IMPORTANT! Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from The University. Since dishonesty harms the individual, all students, and the integrity of The University, policies on scholastic dishonesty will be strictly enforced. (See General Information, The University of Texas at Austin, 2001-2002, Appendix C, Subchapters 11-801 and 11-802, Student Standard of Conduct (see <http://www.utexas.edu/student/registrar/catalogs/gi00-01/app/appc11.html>). This policy is also provided on Blackboard. Remember, **individual** assignments are not group projects and do not build on the efforts of others without due reference.

For additional information on these items see the Deans of students website, and University General Information Catalog, at: <http://deanofstudents.utexas.edu/sjs/>, and <http://registrar.utexas.edu/catalogs/gi11-12/>.

Students with Disabilities:

The University of Texas at Austin provides, upon request, appropriate academic accommodations for qualified students with disabilities. For more information, contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259 or <http://www.utexas.edu/diversity/ddce/ssd>.

Privacy:

Web-based, password-protected class sites may be associated with all academic courses taught at the University. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging email, engaging in class discussions and chats, and exchanging files. In addition, electronic class rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For information on restricting directory information, see: <http://www.utexas.edu/student/registrar/catalogs/gi00-01/app/appc09.html>.

Course Evaluations:

An evaluation of the course and instructor will be conducted at the end of the semester using the approved UT Course/Instructor evaluation forms.

Dropping the Class:

From the 1st through the 12th class day, an undergraduate student can drop a course via the web and receive a refund, if eligible. From the 13th through the university's academic drop deadline, a student may Q drop a course with approval from the Dean, and departmental advisor.

Computer Usage:

With the exception of using word processing systems in the development of assignments, this course does not directly involve computer usage. The web-based UT Blackboard system (<https://courses.utexas.edu>) will be used extensively to coordinate class assignments and disseminate course information, including class notes.

Religious Holy Days.

A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible, so that arrangements can be made to complete an assignment within a reasonable time after the absence.

Reading Assignment
How Buildings Work

Read By	Chapters
September 11	1, 2, 3
September 18	4, 5
September 25	6, 7
October 2	8, 9
October 9	10, 11
October 16	12
October 23 (Exam 1)	13, 14
October 30	15, 16
November 6	17
November 13	18, 19
November 20	20, 21
November 27 (Exam 2)	22
December 4	-

Note: Exam 1 will cover chapters 1 to 12; Exam 2 will cover chapters 13 to 22.
Exams will be on October 23 and November 27.

TENTATIVE COURSE SCHEDULE

Dates and speakers are tentative. Some speakers may appear at different times and speaker substitutions may be made.

Date	Topic	Lecturer
September 4	Introduction	Atila Novoselac, Professor
September 11	Time Management	Sanger Learning Center
September 18	Architectural Design	Gregory Brooks, ARE Faculty
September 25	Residential Construction	David Fowler, Professor
October 2	Building Environmental Systems	Zoltan Nagy, Assistant Professor
October 9	Construction Engineering and Project Management	Fernanda Leite, Associate Professor
October 15	Forensic Engineering	to be determined
October 23 (Exam)	Exam 1 followed by lecture on LEED	Atila Novoselac
October 30	Art of Structural Engineering	Thomas Taylor, Datum
November 6	Building Information Modeling	to be determined
November 13	Relationship Between Architecture and Structural Engineering	Chuck Naeve, Architectural Engineers Collaborative and Larry Speck, Professor of Architecture.
November 20	Investigation of Failures in Buildings	Jim Wiethorn, Haag Engineering
November 27 (Exam)	Exam 2 followed by discussion with former ARE graduates	ARE graduates
December 4 (Notebook Due)	Wrap-up/Course Evaluation	Atila Novoselac, Professor

Important Dates:

October 23, November 27	Exams 1 and 2
December 4	Class notes Due-date