AEC 344 – STRUCTURAL DESIGN
Spring 2018
Online and Face-to-face
College of Science and technology
School of construction

Instructor
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Office Hours
• Online students may contact the professor via email (see instructions below).
• On-campus students may reach the professor via email in addition to Booking an appointment during the following times:
  o 9:00 AM – 11:00 AM Tuesdays & Thursdays
  o 9:00 AM – 11:00 AM Mondays & Wednesdays

• If the previous times do not suit the student’s schedule, the student may schedule an appointment in a different time.

Prerequisites
• AEC 270 Statics & Strength of Materials

Credit Hours
• 3 credit hours.

Course Description
□ AEC 344. STRUCTURAL DESIGN. 3 hrs. Prerequisite: AEC 270. Design of structural members and building structures using steel, wood, and concrete.

Course Overview
□ In this course, students will develop knowledge of the design and analysis of structural members and building structures using steel, wood, and concrete. The knowledge of structural design and analysis is essential for students of architecture and construction.

Course Objectives
After completing this course, the student should be able to:
1. Calculate beam loads, shear, and moments
2. Design concrete beams, slab, and columns for bending, shear, and deflection
3. Design steel connections, columns, beams, and decking
4. Design wood connections, columns, beams, and decking

Course Communication
• The primary mode of communication will be via **Recorded class lectures**. Students are **required** and expected to watch class videos. **Many of the class questions will asked orally in the video and Online students will be required to respond**

• E-mail Communication:
  Following protocols are established for communication with the professor and **any email not complying with the following protocols shall not be responded to**:

   1) All emails shall be sent from a USM email address.
   2) All online students’ emails should have a subject that starts with “AEC344_ONL_Subject of the email.”
   3) All on-campus students’ emails should have a subject that starts with “AEC344_CMPS_Subject of the email.”
   4) Please provide the professor with 72 Business hours of response time, for all emails.
   5) If no response is received from the professor after the first 72 hours, the student shall email a reminder. Professor realizes that things happen in real life and is more than willing to work with the students. The student should report any event that affects their performance to the professor, via an email. Also, Professor also recommends that students make use of academic resources available on campus to complete the assignments. The information about the available academic resources can be accessed at [http://www.usm.edu/arts-letters/now/student-resources/academic-resources.html](http://www.usm.edu/arts-letters/now/student-resources/academic-resources.html).
   6) Emails should be professional; this means that the they follow the stated above subject line, addressed professionally to the instructor as Dr. Shalabi, signed, and follow the common respect and politeness rules.
   7) Any email that does not comply with the rules specified in point 6 will not be replied on.
   8) Do NOT misspell the professor name.
   9) Do not start your email with phrases like Hey professor or Hi.

**Required Text**


**Technology Requirements**

• **Hardware requirement:**
  Computer capable of running Windows XP, Windows Vista, or Windows 7 and access to a scanner to scan and upload homework assignments if required.

• **Software requirements:**
  Internet Explorer or Mozilla (Freeware)
  Microsoft Word (License Required)
  Adobe Reader (Freeware)

**Class Procedures and Requirements**

1. The class will be taught through face to face lectures and a series of videos uploaded on Canvas. Additional reading material shall be posted on Canvas. It is highly recommended that students review the additional materials and class slides.
2. No grade changes are allowed in the course unless there is an error on the part of the professor. It is the duty of the student to clarify the aims and objectives of the assignment by meeting or emailing the professor in advance.

3. Students will be tested on their understanding of the course using two exams. In addition, assignments and quizzes will be used. It is the responsibility of online students to view class videos regularly and review the material up to that point.

4. It is the responsibility of the students to attend the class and regularly review course materials (slides, tests, discussions, and others) uploaded on Canvas.

5. The student is expected to review regularly any videos uploaded and actively participate in the discussion (via Canvas). Class participation via Canvas discussion is highly recommended, and the professor expects the students to be actively involved. Active participation in Canvas Discussions and review of videos shall count towards the class participation grade.

6. Team assignment shall be submitted in a professional manner and follow the guidelines established. No extension shall be granted. You are going to be a future construction professional and need to cultivate the attitude of a responsible bidder that follows the bid-box standard. It is highly recommended that the student keeps proof of the submission.

7. No late homework assignments will be accepted.

8. The material of this class will be divided into 4 quarters. Each quarter will include a quiz, 1 or 2 assignments. Each exam will cover two quarters of materials (please see class schedule for details)

Evaluation Criteria

- There will be 2 exams and 4 quizzes, See schedule for dates.
  - Exam 1 – Quarters 1 & 2: 30%
  - Exam 2 – Quarters 3 & 4: 30%
  - Quizzes –: 20%
  - Homework assignments and participation in class discussions: 20%

Exam proctoring:

Exams 1 & 2 are to be proctored. Dr. Shalabi will proctor a session for each exam for the Face-to-face students.

- For Online students, please contact the Office of Online Learning on https://online-learning.usm.edu/ for the rules and accommodations and see what examination centers are accepted. Please note that you will be given the following amount of time to take the exam:

  **Exam1:** 5 Days (specified in the schedule)
  **Exam 2:** Only 24 hours to accommodate different time zones. Exam dates are posted on the university website (Thursday May 10th 2018 from 1:30 pm CST until Friday May 11th 2018 at 1:30 pm)
Late Assignments or Projects

Late assignments will not be accepted. It is the responsibility of the student to submit the assignment on time, and failure to do so can severely affect grades.

Grading Scale

- **90 to 100 A – Excellent Work: Goes Beyond the requirements of the subject**
  Criteria: Advance understanding of the subject, thoughtful analysis of the problem, clear communication of ideas, depth of understanding in connecting theory to practice, provocative, scholarly treatment of the subject, and creative/imaginative connections or examples

- **80 to 89 B – Good Work: Fully achieves the requirements of the subject**
  Criteria: Knowledge and depth of understanding of the subject, clear communication of ideas, examines the implications of theory to practice, analysis of the problem, and implementation of solutions.

- **70 to 79 C – Average Work: Substantially completes the requirements of the subject**
  Criteria: Knowledge of the subject, adequately communicates ideas but lacks insight, implications drawn are limited in scope and not connected, not attempt to go beyond the minimum requirements of the subject

- **60 to 69 D – Inferior Work: Inadequate attempt in completing the requirements**
  Criteria: Limited knowledge of the subject, inadequate communication of ideas, completes less than minimum requirements of the subject

- **0 to 59 F – Failure: Noncompliance with basic requirements of the class**
  Criteria: Blatant disregard for requirements.

Academic Honesty

“When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion.” Source: USM Undergraduate Bulletin

- Students on disciplinary suspension may not enroll in any courses offered by The University of Southern Mississippi.

ADA Syllabus Statement

- If a student has a disability that qualifies under the American with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

Address:
The University of Southern Mississippi
Office for Disability Accommodations
118 College Drive # 8586
Hattiesburg, MS 39406-0001

Voice Telephone:
(601) 266-5024 or (228) 214-3232
Fax: (601) 266-6035
• *Individuals with hearing impairments* can contact ODA using the *Mississippi Relay Service* at 1-800-5822233 (TTY) or email Suzy Hebert at [Suzanne.Hebert@usm.edu](mailto:Suzanne.Hebert@usm.edu).

**Drop Date, Financial Deadlines, Other Dates of Interest**

See the Academic Calendar for exact dates.
- January 23 -- Last day to drop w/ full $ credit
- February 12-13 Mardi Gras
- February 28 -- Interim grades
- March 12-16 -- Spring break
- March 30 -- Good Friday

- April 5 -- Last day to drop w/ "W"
- May 4 -- Last day of regular classes

**Absences**

All absences will be considered unexcused until valid documentation is provided to the instructor from the Office of Student-Oriented Services (OSS). To obtain an excused absence, students should submit a “Request for Excused Absence Form” found on the following website: [http://www.usm.edu/student-affairs/office/student-oriented-services](http://www.usm.edu/student-affairs/office/student-oriented-services). Once validated, a letter of support from the OSS should be delivered to the instructor. The instructor should receive OSS excuses as soon as possible. You must submit the OSS excuse form within 1 week of the absence, otherwise the excuse will not be considered by the instructor.

Online students are required to answer a lecture by lecture quiz to guarantee their video watching. The quiz nature will be about something said in the video. Please note that same rules of attendance apply.

**Note:**

*The professor reserves the right to change the syllabus. The class will be notified when such scenario occurs*