Instructor
• Rebecca Macdonald
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• 601-266-6259
• https://usm.instructure.com/

Office Hours
Tue 2 - 4 PM, Wed 10 AM - 12 PM / 2 - 4 PM CST; or by appointment.

Important Dates
https://www.usm.edu/registrar/spring-2018-full-term-academic-calendar

<table>
<thead>
<tr>
<th>Calendar date</th>
<th>Full Term</th>
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<tbody>
<tr>
<td>Class Dates</td>
<td>January 16 – May 4</td>
</tr>
<tr>
<td>Final exam</td>
<td>May 7–11</td>
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<tr>
<td>Last day to add/drop without Academic/Financial Penalty</td>
<td>January 23</td>
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<tr>
<td>Last day to receive 100% refund (No tuition credit issued after this date)</td>
<td>January 23</td>
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<tr>
<td>Last day to drop classes without instructor permission</td>
<td>January 23</td>
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<tr>
<td>All approved drops will result in grade of W within these dates</td>
<td>January 24 – April 5</td>
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<tr>
<td>Last day to make an add/drop course request or withdraw from the University and receive a grade of W</td>
<td>April 5</td>
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After the last day to withdraw from the University, students are academically obligated and will receive a grade for all enrolled courses.

Prerequisites: MAT 101 & 103

Credit Hours: 3; T&Th 9:30-10:45 AM CST face-to-face meets in TEC 252 and videos will be posted afterwards.
Course Description – Current USM Bulletin:
Study of two-dimensional forces, force equilibrium, stresses, strains, beams and columns.

Course Overview
Statics & Strength of Materials is the prerequisite course for Structural Design and involves the study of force systems, stresses, strains, beams and columns. This preparation is necessary for understanding structural design and analysis.

Course Outcome(s)

Student Learning Outcomes
At the completion of this course, the students shall be able to:
Understand the basic principles of structural behavior (SLO 19)
1. Calculate the components of a force
2. Calculate the moments of forces
3. Work problems involving the method of joints and sections
4. Trace load paths on structures
5. Calculate axial, shear and bearing stresses
6. Calculate axial strain using Hooke’s law
7. Calculate thermal stresses
8. Calculate centroids and moments of inertia
9. Construct load, shear, and moment diagrams
10. Calculate flexural stresses and beam deflections
11. Analyze and design columns

Course Communication
- Course Material will be delivered through the Canvas course site.
- Email will be received and sent through the Canvas course site
- Email Protocol: All course email should have in the subject header 'AEC270_' prior to the stated subject topic.

Required Text(s) and Readings
- Videos, Articles and Power Point presentations on the Canvas course site. All videos will be posted via YUJA.

Technology Requirements
Proficiency in Microsoft Office Suite (Word, Excel, PowerPoint): versions capable of saving files in appropriate formats (.doc, .docx, .xls, .xlsx, .ppt, etc.) or converting into .pdf format.
Canvas Access: It is your responsibility to enable your computer and web browser for access to and usability with Canvas. Please take the time to learn how and what browsers and java versions are required.
Viewing Video: The ability to view instructional videos in this course is critical. They will be accessed on the Canvas course site.
Hardware
The Construction Engineering Technology program and The School of Construction has set a minimum requirement for personal computer specifications. However, you are responsible for having access to a computer that can accommodate the course delivery and requirements. Please do not
attempt to navigate the course solely with a tablet or smartphone (although apps for these and push notifications are encouraged).

*Special Note Concerning Technical Support:*
Students are expected to be able to use and maintain a personal computer, keeping it free of viruses and malware, and have the ability to troubleshoot web browser issues, such as cookies and java versions.
Please do not rely or depend upon the instructor for technical support. For Canvas, technical support can be found at this link: https://www.usm.edu/canvas

**Class Procedures, Requirements, and Expectations**

- **Exams** will be **proctored**.
  Students in the H001 section (face-to-face) will be paper based and turned in during class.
  Students in the H002 section (online) are required to procure and coordinate their own proctors through the Office of Online Learning: https://lec.usm.edu/proctoring/

- **Assignments** are due at the time and date stated in Canvas as well as the course schedule. No submittals via email will be accepted.

- There will not be make-up exams or assignments unless properly vetted/registered with The Office of Student Oriented Services in RC Cook Union 221. https://www.usm.edu/student-affairs/office-student-ombudsman-services

- Students are expected to invest considerable time outside of class in learning the material for this course. The expectation of the University of Southern Mississippi is that each week students should spend approximately 2-3 hours outside of class for every hour in class working on reading, assignments, studying, and other work for the course. Since most students work and have family or other obligations, time management is critical for student success. All students should assess their personal circumstances and talk with their advisors about the appropriate number of credit hours to take each term, keeping in mind that 30 credit hours each year are needed to graduate in four years. Resources for academic support can be found at www.usm.edu/success.

- Work in this course is expected to be **individual** (not groups, teamwork, or collaboration). If I find that you have even partially used the work of another, I will automatically notify you that your grade is zero for the assessment and whether I am failing you for the course. **DO NOT** share or show your work with others as (a) two students will be penalized each time irrespective of intent, and (b) I may curve the grades, so sharing is not in your best interest. Please know your rights as a student, and mine as an instructor, via the Student Handbook: https://www.usm.edu/student-handbook

- New content will be opened/delivered each week. Supplemental material outside of the text will be considered required reading (‘Reference’ material is optional and will be so labeled).

**Class Participation and Attendance Policy**

Students are expected to stay current with the readings assignments and to complete assessments by the required due dates.

**Attendance is required.**

Students in the H001 section (face-to-face) will be taken at each class period.
Students in the H002 section (online) will be taken via Canvas quiz of 1 or 2 questions posed during each class lecture video. You will submit these answers once per week by Sunday at 11:59PM.

If you are “absent”, a verified excuse must be obtained from The Office of Student Oriented Services in RC Cook Union 221. https://www.usm.edu/student-affairs/office-student-ombudsman-services
### Evaluation Criteria

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<thead>
<tr>
<th>Assessment</th>
<th>Percent</th>
<th>Description</th>
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<tbody>
<tr>
<td>Exams (3)</td>
<td>75%</td>
<td>Related to the material covered. (MUST BE PROCTORED)</td>
</tr>
<tr>
<td>Assignments</td>
<td>15%</td>
<td>Homework Practice Problems</td>
</tr>
<tr>
<td>Attendance</td>
<td>10%</td>
<td>See instructions in the attendance policy</td>
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### Grading Scale

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<tr>
<th>Grade</th>
<th>Minimum Average</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-60</td>
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The instructor maintains the official gradebook and calculates grades externally from the courseware. The Canvas gradebook is not the official gradebook and is utilized only for the purpose of retrieving quiz/exam grades, when applicable, and as a convenient feedback utility to inform students of individual assignment grades, once available. The Canvas gradebook may or may not display all credit assignments at any given time during the semester and therefore is not to be used as a planning tool for identifying required activities or due dates. Grade totals and percentages in the Canvas gradebook may not accurately reflect actual course performance. I will attempt to keep the Canvas gradebook as accurate as possible so that you can track your grade status in the course as closely as possible.

### Proctored Exams

Exam 1 and 2, and Final Exam must be proctored. Exam 1 and 2, will be given a window of approximately 72 hours, and will be due on Sunday as stated in Canvas. The Final exam must be taken on Thursday, May 10th from 8:00 AM to 10:30 AM CST as per USM policy. The face-to-face students will be proctored in class. The online students have the responsibilities to ensure that this process is successful, thus must read all instructions about their responsibilities related to fees, forms, and follow-up located at the following web-page: [https://lec.usm.edu/proctoring/](https://lec.usm.edu/proctoring/)

All Exams are password protected and only the student’s verified proctor will be issued the password. The timeframes to take the Exams are provided in Canvas portal.

### Late Assignments or Projects

Late work will not be accepted. Exceptions must be documented by the university and at the discretion of the instructor. A verified excuse must be obtained from The Office of Student Oriented Services in RC Cook Union 221.

[https://www.usm.edu/student-affairs/office-student-ombudsman-services](https://www.usm.edu/student-affairs/office-student-ombudsman-services)

### Academic Integrity

All students at the University of Southern Mississippi are expected to demonstrate the highest levels of academic integrity in all that they do. Forms of academic dishonesty include (but are not limited to):

1. Cheating (including copying from others’ work)
2. Plagiarism (representing another person’s words or ideas as your own; failure to properly cite the source of your information, argument, or concepts)
3. Falsification of documents
4. Disclosure of test or other assignment content to another student
5. Submission of the same paper or other assignment to more than one class without the explicit approval of all faculty members involved
6. Unauthorized academic collaboration with others
7. Conspiracy to engage in academic misconduct
Engaging in any of these behaviors or supporting others who do so will result in academic penalties and/or other sanctions. If a faculty member determines that a student has violated our Academic Integrity Policy, sanctions ranging from resubmission of work to course failure may occur, including the possibility of receiving a grade of “XF” for the course, which will be on the student’s transcript with the notation “Failure due to academic misconduct.” For more details, please see the University’s Academic Integrity Policy. Note that repeated acts of academic misconduct will lead to expulsion from the University.

**Academic Honesty**

**Required:** Students must read the syllabus, and complete the syllabus assignment on Canvas, where you must create a word document stating the following:

- Understand USM’s academic integrity policy and also recognize that if they do not uphold the standards of academic honesty, the instructor will enforce all applicable punishment.
- Understand their responsibility under the ‘Technology Requirements’ section.
- Understand that work in this course is not to be collaborative, and that sharing electronic documents or course information between students (unless otherwise stated, i.e. group work) is prohibited and considered cheating.
- Understand their Communication Etiquette responsibility
- Understand their Exam Proctor requirements for the on-line students

Your cooperation is required in this course for learning or 'academic' integrity. You may have to do some supplemental research to feel confident of your answers (examples would be websites with construction data, supplemental materials posted by the instructor, etc.). In any case it is always good to document your assumptions in the assignments. This will result in unique submissions and if I feel that several of the assignments have been shared or collaborated upon, I will act and then investigate. **If two or more assignments are duplicated, I will fail all parties involved, so please DO NOT SHARE YOUR WORK with others prior or after the submission.**

**ADA Policy:** If a student has a disability that qualifies under the Americans 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 1-800-582-2233 (TTY) or emailing ODA at oda@usm.edu

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