

**McLennan**  
C O M M U N I T Y  
**COLLEGE**

WACO, TEXAS

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**COURSE SYLLABUS**  
**AND**  
**INSTRUCTOR PLAN**

**Mechanics of Materials**

**ENGR – 2332 – H1**

**Professor Laura Wright**

**NOTE: This is a 16-week course.**

**NOTE: This is a Blended/Hybrid course.**

**COVID 19 Notice:**

McLennan Community College is committed to providing you with every resource you need to reach your academic goals. We are also concerned for your safety. We are working through COVID-19 guidelines to make sure we offer a safe environment for you and our faculty. This will include smaller class sizes to manage social distancing and proper cleaning techniques. You will have the advantage of a physical classroom experience but may also need to work part of the time online as we adjust to limited classroom capacity. This will also allow us the flexibility to move online if so directed by federal, state and/or local COVID 19 guidelines. Faculty and staff are preparing now to ensure that you have the best experience in the midst of these uncertain times.

**Course Description:**

Stresses, deformations, stress-straining relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Prerequisite: MATH 2414 with a minimum grade of C and ENGR 2301 or ENGR 2401 with a minimum grade of C. Semester Hours 3 (3 lec)

**Prerequisites and/or Corequisites:**

Prerequisite: MATH 2414 with a minimum grade of C and ENGR 2301 or ENGR 2401 with a minimum grade of C.

**Instructor Information:**

Instructor Name: Professor Laura Wright

MCC Email: [lwright@mclennan.edu](mailto:lwright@mclennan.edu)

Office Phone Number: 254-299-8419

Office Location: HP 230

Office/Teacher Conference Hours: M/W 1-4pm, by Zoom, or email to schedule an appointment

Zoom Meeting ID: 837-729-4618

*\*if you want the fastest possible response, please contact me via email or Slack. I am not always in my office to answer the phone, but I check email and Slack multiple times throughout the day.*

*\*\*please keep in mind that if you contact me after hours or over the weekend, I may not be able to respond until the next business day.*

**This class meets Tuesdays/Thursdays, 1:05 pm – 2:50 pm**

**This is a 2-Way, Blended class. This means that we will meet online through Zoom at the times indicated above. You will not be required to attend every class meeting, however, there are some dates in which meetings will be mandatory. Please check the mandatory dates for your section below and contact Professor Wright *as soon as possible* if you have a known conflict for any of these dates.**

**Mandatory Meeting Dates:**

- Thursday, February 4 @ 1:05pm – 2:50pm
- Thursday, February 25 @ 1:05pm – 2:50pm
- Thursday, April 1 @ 1:05pm – 2:50pm
- Thursday, April 29 @ 1:05pm – 2:50pm
- Tuesday, May 4 @ 1:00pm – 3:00pm

**Required Text & Materials:**

- *Mechanics of Materials* 10e by Hibbeler and MasteringEngineering access code
- Scientific or graphing calculator (TI-89s are great!)
- Two separate internet-enabled devices (ideally a computer and a smartphone or tablet) for use on test days.
  - One must have a camera and microphone, and be able to connect to Zoom (like most smart phones)
  - One must be able to run Respondus Lockdown Browser

**MCC Bookstore Website:** <http://www.mclennan.edu/bookstore/>

**Additional Requirements:**

Students must have a reliable computer and internet connection. Students must be able to demonstrate basic computer literacy skills such as keyboarding, sending and receiving email, and using a web browser.

*MCC Engineering uses Slack for communication. All major course announcements will be posted in Slack – failure to check Slack will result in you missing important information. Also, anything we hear about jobs, scholarships, speakers, etc., will also be posted to Slack in the #general channel.*

Slack is free and used in the professional community as a workflow management system, so it is good to gain experience with the tool. All “general questions” like “I’m stuck on problem 5” will be directed to Slack, which will allow you and your classmates to support each other, especially in “time-crunch” situations. Always be respectful and professional in your participation.

Please bear in mind that Slack is an open communication tool. Please do not ask for or reveal personal information through the tool. Note that anything you post in Slack in channels will be viewable by other channel participants. Do not post anything about personal grades, due dates, or personal issues. Do not post your own correct solutions to assignments, but you can post incorrect work and ask if anyone can see where you went wrong.

Slack can be used on both a desktop computer and as an app. For more information about Slack in general, visit <https://slack.com/>. You will be invited to our class channel via your MCC student account. Detailed guidelines for Slack are on Brightspace and on Slack itself.

**Methods of Teaching and Learning:**

Students will learn through online video lecture and reading the textbook, as well as through independent research, and work on homework, quizzes and exams. Other opportunities may present themselves throughout the semester.

**Course Objectives and/or Competencies:**

Upon successful completion of this course, the student will be able to demonstrate the following learning outcomes:

1. Relate stress and strain through Hooke’s law for ductile and brittle materials.
2. Calculate stress, strain and deflection in statically determinate and indeterminate members subject to axial, bending, torsional, thermal, and pressure loads, both individually and in combination.
3. Apply the principle of superposition.
4. Transform stresses and strains from one coordinate system to another.
5. Design beams and shafts.
6. Determine the critical buckling loads of columns.

**Course Outline or Schedule:**

You are responsible for everything listed in the detailed calendar below. In general, your assignments for each week will be due every Thursday at 11:59pm, unless otherwise indicated by your instructor. You should watch the associated videos and read the indicated pages in the textbook on or before the due date for each assignment, so that you have time to complete the assignment. This calendar is subject to change. In the event that I need to make changes to the schedule, I will make an announcement through Slack, email, and Brightspace as soon as I possibly can.

<b>Date</b>	<b>Topic</b>
Week 1 1/11 – 1/17	<ul style="list-style-type: none"> <li>• 1.1 – 1.5</li> </ul>
Week 2 1/18 – 1/24	<ul style="list-style-type: none"> <li>• 1.6 – 1.7</li> <li>• 2.2</li> <li>• 3.1 – 3.4</li> </ul>
Week 3 1/25 – 1/31	<ul style="list-style-type: none"> <li>• 3.1 – 3.4</li> <li>• 3.5 – 3.6</li> </ul>
Week 4 2/1 – 2/7	<ul style="list-style-type: none"> <li>• <b>Test 1 (Ch 1-3)</b></li> <li>• <b>Thursday, February 4</b> @ <b>1:05 pm – 2:50 pm</b></li> </ul>

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Week 5 2/8 – 2/14	<ul style="list-style-type: none"> <li>• 4.1 – 4.2</li> <li>• 4.3 – 4.5</li> <li>• 4.6 – 4.8</li> </ul>
Week 6 2/15 – 2/21	<ul style="list-style-type: none"> <li>• 5.1 – 5.3</li> <li>• 5.4 – 5.5, 5.8</li> </ul>
Week 7 2/22 – 2/28	<ul style="list-style-type: none"> <li>• <b>Test 2 (Ch 1-5)</b></li> <li>• <b>Thursday, February 25</b> @ <b>1:05pm – 2:50pm</b></li> </ul>
Week 8 3/1 – 3/7	<ul style="list-style-type: none"> <li>• 6.1 – 6.4</li> <li>• 6.5, 6.9</li> </ul>
3/8 – 3/14	<b>Spring Break</b>
Week 9 3/15 – 3/21	<ul style="list-style-type: none"> <li>• 7.1 – 7.2</li> <li>• 7.3 – 7.4</li> </ul>
Week 10 3/22 – 3/28	<ul style="list-style-type: none"> <li>• 8.1 – 8.3</li> </ul>
Week 11 3/29 – 4/4	<ul style="list-style-type: none"> <li>• <b>Test 3 (Ch 1-8)</b></li> <li>• <b>Thursday, April 1</b> @ <b>1:05pm – 2:50pm</b></li> </ul>
Week 12 4/5 – 4/11	<ul style="list-style-type: none"> <li>• 9.1 – 9.3</li> <li>• 9.4 – 9.5</li> </ul>
Week 13 4/12 – 4/18	<ul style="list-style-type: none"> <li>• 10.1 – 10.2</li> <li>• 10.5 – 10.6</li> <li>• 11.1 – 11.2</li> </ul>
Week 14 4/19 – 4/25	<ul style="list-style-type: none"> <li>• 12.1 – 12.2</li> <li>• 12.5 – 12.7, 12.9</li> <li>• 13.1 – 13.3</li> </ul>
Week 15	<ul style="list-style-type: none"> <li>• <b>Test 4 (Ch 1-13)</b></li> <li>• <b>Thursday, April 29</b></li> </ul>

4/26 – 5/2	<b>@ 1:05pm – 2:50pm</b>
Week 16 Final Exam	<b>Final Exam</b> ○ <b>Tuesday, 5/4 @ 1:00 – 3:00 pm</b>

**Course Grading Information:**

**Important: IN ORDER TO PASS THE COURSE, YOU MUST HAVE A PASSING TEST AVERAGE (70.0% or higher). The test average will be calculated based on your four highest test grades. If your test average is 70.0% or higher, then your grade will be calculated based on all of your work. If your test average is lower than 70.0%, then your grade in the class will be based on your test average, with a maximum grade of D.**

<b>Grade Distribution</b>	
Homework	25%
Quizzes	5%
Tests	70%
<b>Total</b>	<b>100%</b>

**A: 90%+    B: 80% – 89%    C: 70% – 79%    D: 60% – 69%    F: 0% – 59%**

**Homework (25%):** Specific problems will be posted on MasteringEngineering, along with additional requirements. Homework is generally due every Thursday at 11:59pm.

**Quizzes (5%):** Every so often, there will be quizzes in this class. Quizzes may be over class policy (such as the syllabus quiz), content (such as problems to work out), or notes quizzes in which I ask you to submit your scanned notes for the class.

**Tests (70%):** Five tests will be given during the semester (four during the regular semester and one during the final exam period). The lowest test grade will be dropped.

- In order to take the test, there are some procedures you will need to follow:
  - You will need two internet-capable devices on the test day.
    - A phone – to log into Zoom
    - A computer/laptop – to log into Brightspace
  - On your phone: You'll join the class Zoom channel so I can proctor the exam.
    - Be ready to present your student ID (or another form of ID if you don't have one) so we can verify your identity).

- I will need to watch you for the entire time you're taking the exam.
- You can mute your mic, but not your video.
- Your camera on your phone needs to be arranged so I can see you and your workspace.
- I will record the Zoom meeting in case there are questions related to academic integrity, but will not post the video.
- On your computer/laptop
  - Prior to the day of the exam, you will need to complete the Technology Check to make sure you have Respondus Lockdown Browser working on your machine.
  - The test is password protected – you cannot get the password without joining the Zoom meeting.
- Other important info:
  - The test dates are listed in the syllabus.
    - Please clear your schedule now as there will be no makeup exam except in cases where you can provide documentation of an MCC-approved absence.
    - Make sure you have a technology backup plan (like how to use your phone as a wifi hotspot) in case something goes wrong.
  - Try and get a distraction-free zone for testing, but I understand that things happen. Avoid a situation where someone could make the argument that you are getting unauthorized help on the exam from someone else.

**Academic Dishonesty:** Any student that is found guilty of academic dishonesty such as cheating, plagiarism, or collusion, will receive the zero grade on every test or assignment involved. For repeated violations, a guilty student can be assigned a failing grade in this course and can be recommended for suspension from the McLennan Community College District.

**Late Work, Attendance, and Make Up Work Policies:**

Late assignments will not be accepted for any reason. If you are unable to attend class on one of the testing days listed in the calendar above due to an MCC excused absence reason, you must contact me as soon as possible (before the test, if possible) and provide acceptable documentation as listed above for your absence so that I can make an alternate arrangement for you to complete the test. Absences without documentation or for reasons that do not fall under the list below will not be considered for make up and you will receive a zero for that test.

MCC allows for “excused” absences caused by (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family, or (4) the observance of a religious holy day. It is your responsibility to let me know the reason for an absence the day you return to campus and provide sufficient documentation (doctor’s note, email from coach, etc.).

As per McLennan Community College's attendance policy, regular and punctual attendance is expected of all students. Students, whether present or absent, are responsible for all material presented, assigned, or due in class and will be held accountable for such materials in the determination of course grades. Absence from more than 25 percent of scheduled lecture meetings will be taken as evidence that a student does not intend to complete the course. The student will be withdrawn with a grade of "W." If a student reaches the 25 percent absences after the official drop date, the instructor may assign a "W" or an "F" depending upon the student's academic performance at the time of the decision.

Attendance will be taken weekly. It will be based on completion of assignments. If you do not complete any assignments for the week, you will be marked absent for that week. For this course, 25% absences are reached after 4 weeks of non-participation. If you have 4 absences, you will be automatically dropped from the course. If your 4 absences are reached after the drop date, you will not be dropped, and you will earn an F for the course. Please note that an "excused" absence does not remove the absence. An "excused" absence means you the opportunity to make up missed work due to the absence.

If you wish to drop this class, you must email me from your MCC student account before 5 pm on the last day for student-initiated drops, with the request "Please drop me from COURSE ID and SECTION NUMBER." An email that says something like, "I would like to drop..." or, "I was thinking about dropping..." or, "I was wondering if I should drop..." will not be considered a drop request. (Just like saying, "I would like to get married," does not mean anyone is going to automatically marry you.) If the email does not come from your student account, or if the request is verbal, I cannot drop you. Alternatively, there is a form you can fill out and have me sign before 5 pm on the last day for student-initiated drops. (make an appointment to ensure I am on campus to obtain the signature).

After submitting your request, you must verify the drop was processed, notifying me in writing within 48 hours of your original request if it was not. Otherwise, you will stay on the roster for the rest of the semester and be awarded the grade earned. Drops past the drop date are only done in documented, extreme, life-crisis circumstances, which usually involve withdrawing from school entirely.

**Student Behavioral Expectations or Conduct Policy:**

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.



\* [Click Here for the MCC Academic Integrity Statement](#)

([www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity))

The link above will provide you with information about academic integrity, dishonesty, and cheating.

\* [Click Here for the MCC Attendance/Absences Policy](#)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

*\* You will need to access each link separately through your Web browser (for example: Mozilla Firefox, Chrome, Microsoft Edge or Safari) to print each link's information.*

***\*\*\*I reserve the right to change any term on this syllabus at any time during this semester\*\*\****

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## ACADEMIC RESOURCES/POLICIES

### **Student Support/Resources:**

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

### **MCC Foundation Emergency Grant Fund:**

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at [https://www.mclennan.edu/foundation/docs/Emergency\\_Grant\\_Application.pdf](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

### **Minimum Technical Skills:**

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

### **Backup Plan for Technology:**

In the event MCC's technology systems are down, you will be contacted/notified through your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

\* [Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace](https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html)  
(<https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html>)

Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

**Email Policy:**

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

**Instructional Uses of Email:**

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with her/his students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

**Email on Mobile Devices:**

The College recommends that you set up your mobile device to receive McLennan emails.

**Forwarding Emails:**

You may forward the emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may become lost or placed in junk or spam filters.

**Accommodations/ADA Statement**

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit [mclennan.edu/disability](http://mclennan.edu/disability).

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

Room 319, Student Services Center

\* [Click Here for more information about Title IX](http://www.mclennan.edu/titleix)  
([www.mclennan.edu/titleix](http://www.mclennan.edu/titleix))

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at

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[titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Equity & Inclusion/Title IX) at 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting the following website: <http://www.lighthouse-services.com/mclennan/>.

McLennan's Title IX webpage (<http://www.mclennan.edu/titleix/>) contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

\* *You will need to access each link separately through your web browser (for example Mozilla Firefox, Chrome, Microsoft Edge, or Safari) to print each link's information.*