

Updated 07/18/2023



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

Mechanics of Materials

ENGR – 2332 – 001

Professor Laura E. Wright

NOTE: This is a 16-week course.
NOTE: This is a Face-to-Face course.

Course Description:

Stresses, deformations, stress-straining relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Semester Hours 3 (3 lec)

Prerequisites and/or Corequisites:

MATH 2414 with a minimum grade of C.

ENGR 2301 or ENGR 2401 with a minimum grade of C.

Instructor Information:

Instructor Name: Professor Laura E. Wright

MCC E-mail: lwright@mclennan.edu

Office Phone Number: 254-299-8419

Office Location: S 246

Zoom Meeting ID: 837-729-4618

Office/Teacher Conference Hours:

- Mondays: 10:30-11am, 3:15-5pm
- Tuesdays: 11am–1pm
- Wednesdays: 10:30-11am
- Other times available by appointment only

Note: Please email me first if you need to meet over Zoom rather than in person so that I can make sure I'm logged in

*I am not always able to check email or Slack during non-business hours. Please keep this in mind when contacting me. If you contact me in the evening or on a weekend, I may not be able to respond until the next business day.

This course meets every MW 11:10 am – 1pm in Science Room 214

Required Text & Materials:

- *Mechanics of Materials* 11e by Hibbeler and MasteringEngineering access code
- Scientific or graphing calculator

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. (Your classmates are a lot more likely to be up at 3 am doing homework than I am going to be checking email.) 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 lecture, either in-class or online, and reading, as well as through work on homework, quizzes, and exams. Additional methods may be used as opportunities present themselves.

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 Attendance/Participation Guidelines:

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

Before the 60% point of the semester, a student who is absent for 25% or more of a face-to-face or blended course or who misses 25% or more of assigned work for an online course will be withdrawn from the course with a grade of W. A student may also request to be withdrawn with a grade of W before the 60% point of the semester. After the 60% point of the semester, the student may request to be withdrawn if the student is passing, or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work.

Course Outline or Schedule:

You are responsible for everything listed below. In the event that I am not able to be physically present in class, I may provide video or assign other activities so we do not get behind. Other graded material (tests, quizzes, etc.) will continue to be due as indicated in the syllabus, unless I let the class know otherwise. Any changes to this schedule will be announced in class, on Slack, on Brightspace, or through email.

Mechanics of Materials

ENGR – 2332 – 001

Week	Monday Topics	Wednesday Topics	Due Sunday @ 11:59pm
Week 1 Jan 8 – Jan 14	Sections 1.1 – 1.5	Sections 1.6 – 1.7	HW 1
Week 2 Jan 15 – Jan 21	<i>No Class – MLK Jr Day</i>	Sections 2.1 – 2.2	HW 2
Week 3 Jan 22 – Jan 28	Sections 3.1 – 3.4	Sections 3.5 – 3.6	HW 3
Week 4 Jan 29 – Feb 4	Sections 4.1 – 4.2	Sections 4.3 – 4.5	HW 4
Week 5 Feb 5 – Feb 11	Test 1 in class (Ch. 1 – 3)	Sections 4.6 - 4.8	HW 5
Week 6 Feb 12 – Feb 18	Sections 5.1 - 5.3	Sections 5.4 - 5.5, 5.8	HW 6
Week 7 Feb 19 – Feb 25	Sections 6.1 - 6.4	Sections 6.5, 6.9	HW 7
Week 8 Feb 26 – Mar 10	Test 2 in class (Ch. 1 – 5)	Sections 7.1 - 7.2	HW 8
<i>Spring Break March 4 – 8, No Class Meetings – Week 8 Assignments due Sunday, 3/10</i>			
Week 9 Mar 11 – Mar 17	Sections 7.3 - 7.4	Sections 8.1 – 8.2	HW 9
Week 10 Mar 18 – Mar 24	Sections 9.1 – 9.3	Sections 9.4 – 9.5	HW 10
Week 11 Mar 25 – Mar 31	Test 3 in class (Ch. 1 – 8)	Sections 10.1 – 10.2	HW 11
Week 12 Apr 1 – Apr 7	Sections 10.5 – 10.6	Sections 11.1 – 11.2	HW 12
Week 13 Apr 8 – Apr 14	Sections 12.1 – 12.2 (online)	Section 12.5 – 12.7, 12.9	HW 13
Week 14 Apr 15 – Apr 21	Section 13.1 – 13.3	Mechanics of Materials Concept Inventory	HW 14
Week 15 Apr 22 – Apr 28	Test 4 in class (Ch. 1 – 13)	Final Exam Review	
FINAL EXAM – Monday, Apr 29 @ 11:10am – 1:10 pm in S 214			

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.

Grade Distribution	
Homework	30%
Quizzes	10%
Test	60%
Total	100%

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

Homework: Specific problems will be posted on MasteringEngineering, along with additional requirements. Homework is generally due every Sunday at 11:59pm, unless otherwise stated.

Quizzes: There will be quizzes at the beginning of class every Wednesday. Quizzes will be pass/fail only. If you do not pass a quiz, you must attend SI *before* the Wednesday of the following week and make up the quiz.

Tests: 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. While taking tests, all electronic devices (phones, tablets, laptops, watches, earbuds, etc.) except for your calculator must be put away and turned off. You must complete each test during the time given. If you are late for class, you forfeit that amount of time to work. Makeup exams will only be given in rare cases, following the policy outlined elsewhere in the syllabus. You may not use your textbook or notes on the exams. You will need a scientific calculator (not on your phone, tablet, laptop, etc.) to complete the tests. Tests will focus on new material but may cover anything that we've covered in the class so far in the semester.

Ways to get academic support for this class:

Supplemental Instruction: This course has been assigned a Supplemental Instructor, who will be holding SI meetings a few times each week. The purpose of these meetings is to complement the course and provide help with course topics and assignments. SI Meetings can be attended in person or via Zoom. More information will be provided in class and on Slack.

Homework Nights: The Engineering & Physics Club will be holding twice-weekly Homework Nights on campus throughout the semester. This is a great opportunity to meet with other students and meet with an engineering tutor (or SI) to get help with class assignments. Details will be provided on Slack.

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 and Make Up Work Policies:

Late assignments will not be accepted. All homework is to be submitted online by the due date, regardless if you are attending the course online or in person. If you are legitimately ill during an in-class test, you must email me the morning of the exam (before you miss it), and *provide a doctor's note the first day you are back in class* to receive consideration for a makeup exam. Missed exams without documentation will not be eligible to be made up.

Attendance is mandatory. **Per MCC policy, you may be automatically dropped after missing 25% of class meetings, or 8 lectures.** For this purpose, missing more than 15 minutes of any class will be considered an absence. If you are dropped before the official drop date, you will receive a grade of W. If you reach 8 absences after the official drop date, you will not be dropped, rather, you will automatically receive a grade of F, unless there are highly unusual circumstances.

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.).

Drop Policy (student-requested): The last date for student-initiated withdrawals from this course is **Thursday, March 21 before 5pm**. If you wish to withdraw from this course to receive a grade of "W," you must send me an email from your MCC student account stating, very clearly, "Please withdraw me from ENGR-2332-01." If your language is vague, or if the request comes from any form of communication other than your MCC student email account, I cannot drop you. Once you are dropped, it is very difficult to reinstate you, so please make sure you are certain you wish to drop before making the request. Any drop requests received after 5pm on March 21 will only be done in extreme, life-changing circumstances that usually involve withdrawing from MCC entirely.

Drop Policy (due to absences): According to MCC policy, you are not eligible to receive credit for the course if you miss 25% of class time, which for this course, is 8 class sessions worth of absences (consecutive or non-consecutive).

- *If the 8th absence occurs on or before the drop date of March 21, you will be automatically withdrawn from the course and receive a grade of "W."*
- *If the 8th absence occurs after March 21, you will not be withdrawn. However, you will receive an automatic grade of "F" for the course, and no assignments submitted after the date of the 8th absence will be graded.*

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 this educational opportunity.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<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.

10/09/2023



ACADEMIC RESOURCES/POLICIES

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. For additional information, please visit www.mclennan.edu/disability

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

disabilities@mclennan.edu (254)299-8122
Room 319, Student Services Center

Title IX:

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 titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>

Additionally, Title IX provides rights and protections for pregnant and newly parenting students. Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It 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.

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/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>)

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 either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing success@mclennan.edu.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to <https://calendly.com/paulannespantry-mcc/15min>.

The CREW, Success Coaches, and Paulanne's Pantry are all located on the second floor of the Student Services building in Success Coaching Services.

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

MCC Academic Integrity Statement:

Please view our [Academic integrity statement](#) for more information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

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 notified via 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.

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. For more information about your student email account, go to www.mclennan.edu/studentemail.

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 their 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. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

Forwarding Emails:

You may forward 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 be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.