

McLennan C O M M U N I T Y C O L L E G E

WACO, TEXAS

COURSE SYLLABUS AND INSTRUCTOR PLAN

Mechanics of Materials

ENGR – 2332 – 01

Professor Laura Wright

NOTE: This is a 16-week course.

NOTE: This is a Hyflex course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

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 and 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: MW 3:15-4:30pm (in-person or Zoom), TTh 1-3pm (over Zoom only), or email for appointment

*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 is listed as Hyflex. This means you have the option to meet in person, online through Zoom, or asynchronously through lecture videos. Please note that there will be certain dates you must attend class in person, regardless of whether you have been attending over Zoom or online. Please see the course schedule below to make sure you will be able to attend class on those days.

This course meets MW 11:10 am – 1pm in Room S214 or Zoom Meeting ID 837-729-4618

All tests must be taken in class, in person. It is your responsibility to make room in your schedule to be in class in person on the following dates:

- **Test 1 – Wednesday, February 1 from 11:10am – 1:00pm**
- **Test 2 – Wednesday, February 22 from 11:10am – 1:00pm**
- **Test 3 – Wednesday, March 22 from 11:10am – 1:00pm**
- **Test 4 – Monday, April 24 from 11:10am – 1:00pm**
- **Final Exam – Monday, May 1 from 11:10am – 1:10pm**

Required Text & Materials:

- *Mechanics of Materials* 10e 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 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.

Note the test dates. All tests will be 11:10 am – 1:00 pm. The expectation is that you can clear out these specific dates/times since we're giving them to you at the beginning of the semester, but if you know you can't make these, or if something comes up, please let me know at least two weeks in advance so we can make other arrangements. If changes must be made to the calendar below, I will let you know ASAP so that you can adjust accordingly.

Week	Monday Topics	Wednesday Topics	Due Sunday @ 11:59pm
Week 1 Jan 9 – Jan 15	Sections 1.1 – 1.5	Sections 1.6 – 1.7	HW 1
Week 2 Jan 16 – Jan 22	<i>No Class – MLK Jr Day</i>	Section 2.2	HW 2
Week 3 Jan 23 – Jan 29	Sections 3.1 – 3.4	Sections 3.5 – 3.6	HW 3
Week 4 Jan 30 – Feb 5	Sections 4.1 – 4.2	Test 1 in class (Ch. 1 – 3)	HW 4
Week 5 Feb 6 – Feb 12	Sections 4.3 – 4.5	Sections 4.6 - 4.8	HW 5
Week 6 Feb 13 – Feb 19	Sections 5.1 - 5.3	Sections 5.4 - 5.5, 5.8	HW 6
Week 7 Feb 20 – Feb 26	Sections 6.1 - 6.4	Test 2 in class (Ch. 1 – 5)	HW 7

Mechanics of Materials

ENGR 2332 01

Week 8 Feb 27 – Mar 12	Sections 6.5, 6.9	Sections 7.1 - 7.2	HW 8
<i>Spring Break March 6 – 10, No Class Meetings – Week 8 Assignments due Sunday, 3/12</i>			
Week 9 Mar 13 – Mar 19	Sections 7.3 - 7.4	Sections 8.1 – 8.2	HW 9
Week 10 Mar 20 – Mar 26	Sections 9.1 – 9.3	Test 3 in class (Ch. 1 – 8)	HW 10
Week 11 Mar 27 – Apr 2	Sections 9.4 – 9.5	Sections 10.1 – 10.2	HW 11
Week 12 Apr 3 – Apr 9	Sections 10.5 – 10.6	Sections 11.1 – 11.2	HW 12
Week 13 Apr 10 – Apr 16	Sections 12.1 – 12.2	Section 12.5 – 12.7, 12.9	HW 13
Week 14 Apr 17 – Apr 23	Section 13.1 – 13.3	Mechanics of Materials Concept Inventory	HW 14
Week 15 Apr 24 – Apr 30	Test 4 in class (Ch. 1 – 13)	Final Exam Review	
FINAL EXAM – Monday, May 1 @ 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	15%
Test	55%
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.

Quizzes: There will be quizzes at the beginning of class every Wednesday in which there is not a test scheduled.

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.

Even though this is a Hyflex course, you are expected to be in class in person on test days. Please note the test days listed in the course schedule above. You will not be allowed to take the tests online or at a later date.

While taking the 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 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 bi-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, Attendance, 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* in order to receive consideration for a makeup exam.

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.).

Since this course is Hyflex, you have three options for daily attendance:

- **In Person:** Come to class, as you would for any other class.
- **Online Synchronously:** Log into Zoom using the link provided on Brightspace.
- **Online Asynchronously:** Submit a scanned pdf of all your notes before the next class period, and I will count you as “present.” Notes must be handwritten, and must sufficiently cover the lecture videos.

Drop Policy (student-requested): The last date for student-initiated withdrawals from this course is **Tuesday, March 23 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 23 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 4 weeks worth of absences (consecutive or non-consecutive).

- *If the 4 absences occur on or before the drop date of March 23, you will be automatically withdrawn from the course and receive a grade of “W.”*
- *If the 4th absence occurs after March 23, 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 4th 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.

Updated 11/04/2022

McLennan
C O M M U N I T Y
COLLEGE

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 acting Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Diversity, Equity & Inclusion/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 or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

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 from 7:30 am - 6:00 pm Monday through Thursday and 7:30 am - 5:00 pm on Friday. You can contact the Academic Support and Tutoring team via Zoom (<https://mclennan.zoom.us/j/2542998500>) or email (ast@mclennan.edu) during the above mentioned times.

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 SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg. Both the Completion Center and Paulanne's 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.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

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

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-andStaffCommons/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 Cheat Sheet](#) 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.