McLennan
COMMUNITY
COLLEGE

WACO, TEXAS

COURSE SYLLABUS
AND
INSTRUCTOR PLAN

Mechanics of Materials

ENGR - 2332 - 01

Professor Laura E. Wright

MasteringEngineering Access Code: MEWRIGHT9276540

NOTE: This is a 16-week course.

Course Description:
Stresses, deformations, stress-straining relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses.

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: HP 230
Office/Teacher Conference Hours: MW 2-3pm, T 2-3:30pm, Th 11am – 1pm, or by 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 meets MW 8:00 – 9:20 am in S B107

Required Text & Materials:
- *Mechanics of Materials* 10e by Hibbeler and MasteringEngineering access code
- Scientific or graphing calculator (TI-89s are great!)

MCC Bookstore Website: http://www.mclennan.edu/bookstore/

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, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8:00 a.m.-5:00 p.m. to meet with a success coach and receive additional resources

and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) is open 12:00 p.m.-1:00 p.m., Monday-Friday, without an appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

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**
(**www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements**)
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.

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 and reading, as well as through work on homework 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:

Below is a tentative schedule for this course. This schedule is subject to change, and such changes will be announced both in class and on Slack.

Date	Topics Covered
Mon, Jan 13	1.1 - 1.5
Wed, Jan 15	1.6 - 1.7, 2.2
Mon, Jan 20	MLK Jr Day - No Class
Wed, Jan 22	3.1 - 3.4
Mon, Jan 27	3.5 - 3.6
Wed, Jan 29	4.1 - 4.2
Mon, Feb 3	**Test 1 (Ch 1-3)**
Wed, Feb 5	4.3 - 4.5
Mon, Feb 10	4.6 - 4.8
Wed, Feb 12	5.1 - 5.3
Mon, Feb 17	5.4 - 5.5, 5.8
Wed, Feb 19	6.1 - 6.4
Mon, Feb 24	**Test 2 (Ch 1-5)**
Wed, Feb 26	6.5, 6.9
Mon, Mar 2	7.1 - 7.2
Wed, Mar 4	7.3 - 7.4
Mon, Mar 9	Spring Break - No Class
Wed, Mar 11	
Mon, Mar 16	8.1 - 8.2
Wed, Mar 18	9.1 - 9.3
Mon, Mar 23	**Test 3 (Ch 1-8)**
Wed, Mar 25	9.4 - 9.5
Mon, Mar 30	10.1 - 10.2
Wed, Apr 1	10.5 - 10.6
Mon, Apr 6	11.1 - 11.2
Wed, Apr 8	12.1 - 12.2
Mon, Apr 13	12.5 - 12.7
Wed, Apr 15	12.9
Mon, Apr 20	13.1 - 13.3
Wed, Apr 22	Instructor's Choice
Mon, Apr 27	**Test 4 (Ch 1-13)**
Wed, Apr 29	Final Exam Review
Mon, May 4	**Final Exam 8am-10am in SB107**

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%
Test	70%
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 Monday and Wednesday at 11:59pm.

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 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. 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.

Learning Lab: The Learning Lab in the Science Building, room 135, has many reference books available, and you may find some success studying there. There are also five computers you can use to work on your homework. We do ask that if another engineering student needs to use a computer to work on Matlab or SolidWorks that you relinquish your computer in a reasonable amount of time. Matlab and SolidWorks are only available on a small number of campus computers, whereas your online homework can be done from any campus computer.

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 in class that day or not. 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.).

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 Academic Integrity Statement**
(**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**
(www.mclennan.edu/highlander-guide/policies)

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

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.

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

*** Click Here for more information about Title IX**

(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 titleix@mclennan.edu or by calling Dr. Drew Canham (Vice President for Student Success) 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.

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: Internet Explorer, Mozilla, Chrome, 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******