



WACO, TEXAS

COURSE SYLLABUS

AND

INSTRUCTOR PLAN

ELECTRICAL CIRCUITS I LAB

ENGR - 2105 – 01

Prof. Laura Wright & Dr. Bernard Smith

NOTE: This is a 16-week 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 on any changes to these guidelines.

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Course Description:

Laboratory experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis.

Introduction to principles and operation of basic laboratory equipment and introduction to laboratory report preparation.

Prerequisites and/or Corequisites:

Prerequisite: PHYS 2426. Corequisite: ENGR 2305. Semester Hour 1 (3 lab)

Instructor Information:

Instructor Name: Professor Laura Wright

MCC E-mail: lwright@mclennan.edu

Office Phone Number: (254) 299-8419

Office Location: SB 246

Zoom Meeting ID: 837-729-4618

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

Instructor Name: Dr. Bernard Smith

MCC E-mail: bsmith@mclennan.edu

Office Phone Number: 254-299-8196

Office Location: SB 210

Office Hours: Mon-Thur 11AM – 1PM. Other times by appointment.

Required Text & Materials:

- Circuits Lab Kit
- Research notebook
- Five AA batteries and one 9V battery.
- No additional textbook required, but must have access to the textbook used in Electrical Circuits lecture section.

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

Methods of Teaching and Learning:

Students will learn through lectures and reading, as well as through work on lab experiments involving software and hands-on components, their lab notebook, and lab reports. Additional methods may be used as opportunities present themselves.

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Course Objectives and/or Competencies:

- Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- Conduct basic laboratory experiments involving electrical circuits using laboratory test equipment such as multimeters, power supplies, signal generators, and oscilloscopes.
- Explain the concepts of Thevenin-equivalent circuits and linear superposition and apply them to laboratory measurements.
- Predict and measure the transient and sinusoidal steady-state responses of simple RC and RLC circuits.
- Predict the behavior and make measurements of simple operational-amplifier circuits.
- Relate physical observations and measurements involving electrical circuits to theoretical principles.
- Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.

Course Outline or Schedule:

The following class calendar marks only the beginning of labs and their due date. However, students are expected to work on each lab throughout each week, and must demonstrate it through the Lab Notebook. Each lab will take several weeks to complete. Any changes will be announced on Brightspace.

Lab	Start date:	Report due:
Lab 1	Wed, Jan 11 th	Sun, Jan 29 th , 11:59 pm
Lab 2	Mon, Jan 30 th	Sun, Feb 26 th , 11:59 pm
Lab 3	Mon, Feb 27 th	Sun, Apr 2 nd , 11:59 pm
Lab 4	Mon, Apr 3 rd	Fri, Apr 28 th , 11:59 pm

Course Grading Information:

Category	Percentage
Weekly notebook grade	20%
Lab reports	80%
Total	100%

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

Lab Reports. Students will work on each lab in pairs (or individually if they so choose). Students will have to submit a lab report over each of the labs. Lab reports are due at 11:59 pm

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on the date marked on the course calendar above. One lab may take several weeks to complete. Lab reports must be typed and follow proper lab format. Lab reports will receive a 10% penalty for every day they are late. More information about lab format, expectations, and grading can be found on Brightspace.

Lab notebook. Students must use a lab notebook while they are working on each lab and write down calculations and data. The lab notebook must be written in pen. It must contain all relevant information about the lab experiment, since the lab report will be written from the information in the notebook. Lab notebooks entries must be turned in at the end of each lab day. They will be checked and graded to assess progress and completeness. Further information about the lab notebook expectations and grading standards can be found on Brightspace.

Academic Dishonesty. Any student that is found guilty of academic dishonesty such as cheating, plagiarism, or collusion, will receive a 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 lab reports will be accepted for a penalty (10% per day late). Late notebook entries will not be accepted. If you are legitimately ill, preventing you from submitting your lab report or your weekly notebook, you must provide a doctor's note in order to receive consideration for makeup work.

Attendance is mandatory. *Per MCC policy, you may be automatically dropped after missing 25% of class, or 8 lab meetings.* If you are dropped before the official drop date, you will receive a grade of W. If you are dropped after the official drop date, you will 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 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.

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[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.