COURSE INFORMATION

Instructor Details

Instructor: Derek Reilley

Instructor Email: derek.reilley@colbycc.edu
Phone Number: 785-460-5431
Office Hours: 7:45 - 3:15

Required Text

None
Readings are built into the course.

Colby Community College Mission

Challenge students to adapt to a diverse society. ***Create*** opportunities for student growth. ***Connect*** student learning with professional experiences.

COURSE OUTCOMES AND COMPETENCIES

- Electrical Basics (3.1)
  Upon completion of this unit, students will: Define the meaning of basic electrical parameters including electrical charge, current, voltage, power and resistance, and relate these parameters to their hydraulic analogies (volume, flow, pressure, hydraulic power and friction)

- Electrical Basics (3.2)
  Upon completion of this unit, students will: Explain the difference between electrical power (rate of work performed) and energy (total work performed).

- Electrical Basics (3.4)
  Identify basic electrical test equipment and its purpose, including voltmeters, ammeters, ohmmeters and watt-hour meters.

- Other Course Competencies:
  Chapter 1
    - Understanding the role of electrons, conductors, and voltage
    - Looking at how electricity is generated
    - Exploring some electronic components
    - Connecting components together in circuits
    - Breaking it all down into units
    - Understanding Ohm’s Law

  Chapter 2
    - Using common sense when working with electronic components
    - Avoiding electrocution
    - Keeping watch over static
    - Working with AC current
    - Wearing the right clothes for safety

  Chapter 3
    - Get the lowdown on resistors
    - Quickly changing resistance with potentiometers
    - Discovering how to pick the best capacitor for your circuit
    - Decoding common markings on resistors and capacitors
    - Delving into diodes, including the kind that light up
    - The truth about transistors
    - Understanding integrated circuits

  Chapter 4
    - Picking the perfect type of wire
    - Powering up with batteries and solar cells
    - Flipping switches

- Making five basic tests to get started
- Testing resistors, diodes, and other components

Chapter 8

- Exploring how microcontrollers work
- Getting into a microcontroller's guts

COURSE POLICIES

Assignments and Tests

When you first view your class, look over class requirements, assignments, and other class content to ensure that you wish to remain in the class. If you decide to drop the class, do NOT post in Canvas at all, as that counts as attendance per College policy, and you will be charged a portion of tuition for dropping after attending/posting.

The student is expected to have assignments done when the instructor determines they are due. The instructor determines acceptance of late assignments. There are no written examinations in this class. Submitting timely work and participating determine the final grade.

METHOD OF EVALUATION

Your grade will be based on the following:

Items	Points / Percentage
Thread Discussions	15%
Paper Assignments	10%
Module Quizzes	20%
Learning Outcome Quizzes	20%
Mid-Term	15%

Items	Points / Percentage
Final Exam	20%

Grade Scale

Your grade will be based on the following:

Grade	Percentage
A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	0 - 59

CLASS SCHEDULE

Due Date	Assignment	Type	Points
8/15	Syllabus Practice Quiz	Quiz	15
8/15	Class Introductions	Discussion	100
8/18	Chapter 1 Threaded Discussion	Discussion	100
8/20	Chapter 1 Paper	Assignment	100
8/21	Chapter 1 Quiz	Quiz	100
8/25	Chapter 2 Threaded Discussion	Discussion	100
8/25	Chapter 3 Threaded Discussion	Discussion	100

Due Date	Assignment	Type	Points
8/27	Chapter 2 Paper	Assignment	100
8/28	Chapter 2 Quiz	Quiz	100
8/31	Chapter 3 Paper	Assignment	100
9/1	Chapter 4 Threaded Discussion	Discussion	100
9/4	Chapter 3 Quiz	Quiz	100
9/7	Mid-Term Exam	Quiz	100
9/8	Chapter 5 Threaded Discussion	Discussion	100
9/11	Chapter 5 Paper	Assignment	100
9/14	Chapter 5 Quiz	Quiz	100
9/17	Chapter 6 Threaded Discussion	Discussion	100
9/21	Chapter 6 Paper	Assignment	100
9/22	Chapter 6 Quiz	Quiz	100
9/25	Chapter 7 Threaded Discussion	Discussion	100
9/27	Chapter 7 Paper	Assignment	100
9/28	Chapter 7 Quiz	Quiz	100
10/1	Chapter 8 Threaded Discussion	Discussion	100
10/2	Learning Outcome 3 Assessment Quiz	Quiz	100
10/2	Learning Outcome 2 Assessment Quiz	Quiz	100
10/2	Learning Outcome 1 Assessment Quiz	Quiz	100
10/4	Final Exam	Quiz	100

Late assignments Policy:

1. Late assignments will be docked 15% if not approved prior to the assignment due date via email only.
2. After the last assignment due date for module 4, no late work will be accepted for Modules 1-4 and a zero will be recorded into the gradebook.
3. All assignments will be due at 11:59 pm CENTRAL TIME on the Assignments tab and calendar.
4. Modules 5-8 assignments will be docked 15% if not approved prior to the assignment due date via email only. The students will have one day only to complete late work for Modules 5-8 with the 15% penalty. After one day, a mandatory zero will be recorded in the gradebook.
5. There is no extra credit in this class.
6. A student should print the syllabus the first day they login so they have the instructor's email and phone number in--case they are unable to login to the course. The student will then be able to contact the instructor. Not being able to login to access the course email, is not an excuse since you have should of printed the course syllabus that has the instructors contact information.
7. If a student is unable to login to canvas, they will not be able t o email the instructor with the online canvas course email. The students should immediately email the instructor from the printed syllabus email and put in a helpdesk ticket at support@colbycc.edu
8. If the student emails the instructor saying they cant login and wants the instructor to let them complete late work, if the instructor never received an email from the student (saying they can't login) prior to the assignment due date, the student will be denied.