Fall 9-1-2005

EET 101T.01: Direct and Alternating Current

Steven D. Rice
University of Montana - Missoula
Instructor: Steven D. Rice

Class Periods

Class periods will be divided into two sessions. A presentation of new topics will be given during the first session. During the second session students will have the opportunity to work on their assignments. During the week sessions students are encouraged to work together in groups and to obtain help from the instructor if necessary.

<table>
<thead>
<tr>
<th>GRADING</th>
<th>GRADE SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Assignments 20%</td>
<td>93 to 100 A</td>
</tr>
<tr>
<td>End of Chapter Tests 70%</td>
<td>85 to 92 B</td>
</tr>
<tr>
<td>Quizzes 10%</td>
<td>70 to 84 C</td>
</tr>
<tr>
<td></td>
<td>60 to 69 D</td>
</tr>
<tr>
<td></td>
<td>59 &amp; below F</td>
</tr>
</tbody>
</table>

ATTENDANCE

The Electronics Technology Department policies are attached. Students wishing to obtain their best grade for the course will make sure that they attend each class and work session.

DO NOT MISS END OF CHAPTER TESTS!!

TESTS

End of chapter tests and quizzes will be graded as if by a computer with no provisions for partial credit.

A 20 point penalty will be assessed for make-up tests. All make-up tests will be within 3 regular school days or accept a zero.

A 10 point penalty will be applied to your chapter test score until the lab work is done.

Lab assignments are due the day of the test. All labs will be built during lab time and checked off the instructor. Lab quizzes are a strong possibility.

COURSE OBJECTIVES:
1. To solve basic electronic problems involving current, voltage, resistance, and power.
2. To explain the relationship between current, voltage, resistance, and power.
3. To discuss the relationship between electricity and magnetism.
4. Using a schematic diagram as a guide, be able to construct DC circuits with components such as resistors, relays, switches, lamps, batteries, and capacitors.
5. Given a wiring diagram of a circuit containing components such as resistors, relays, switches, lamps, batteries, and capacitors, be able to draw an equivalent schematic.
6. To use a multimeter to measure current, voltage, and resistance.
7. To convert from one metric prefix to another and to work with powers of ten.
8. To explain the construction, operation, and the purpose of resistors, potentiometers, switches, fuses, relays, capacitors, inductors, and batteries.
9. To demonstrate basic safety procedures designed to protect you and your test equipment.
10. To build and experiment with basic DC circuits of your own design.
11. To explain the difference between AC and DC.
12. To describe the operation of simple AC generator.
13. To determine the average or effective value of an AC sine wave.
14. To determine the frequency of an AC waveform if its period is known or vice-versa.
15. To explain how AC meters can be used to measure current, voltage, and power.
16. To analyze simple AC circuits which contain only resistance.
17. To describe the electrical property of capacitance and explain how components known as capacitors are formed.
18. To analyze AC circuits which contain only inductance or a combination of inductance and resistance.
19. To explain the basic transformer action.
20. To determine the current, voltage, and power relationship at the inputs and outputs of both ideal and practical transformer circuits.
ELECTRONICS DEPARTMENT ATTENDANCE POLICY

Students wishing to obtain their best grade for the course will make sure that they attend each class and work session.

If you are going to be absent for any reason notify the instructor at 243-7914 before the class starts.

If you miss a test without notifying the instructor you will receive a ZERO for that test. Make-up tests any penalty will be at the discretion of the instructor.

If you miss five days or less the lowest end of chapter test will be dropped, excluding zeros.

If you miss ten days or more the final course grade will be dropped one letter grade.

Cell phone ringers will be turned off during lecture.

Monitors will be turned off during lecture.

Eligible students with disabilities will receive appropriate accommodations in this course when required in a timely way. Please speak with me after class or in my office. Please be prepared to provide a letter from the DSS Coordinator.
The University of Montana
College of Technology – West Campus
Information Sheet

1. Welcome to the West Campus, if you have any questions and/or concerns please communicate with us. WE ARE HERE TO HELP. West campus office number is 243-7640, Administrative Assistant – Sandi Shook, office hours are 7:30 AM – 4:00 PM.

2. Courtesy phone located in student lounge.

3. Computer/Study lab is located through the COT West Campus office; hours are 7:30 AM – 4:00 PM.

4. Computer lab in TT06 may be used by students when class is not in session.

5. If you have questions and/or need information from the East Campus, check with our office first.

6. Students should check mailboxes regularly, mailboxes located in student lounge.

7. Dining Services is available from 9:00 AM – 1:30 PM.

8. There are two microwaves available for student use.

9. **Everyone** must wear eye protection in the designated areas.

10. Students must work in the assigned area during the assigned time with instructor supervision. No work will be done after school hours, weekends, or vacations.

11. Chewing tobacco, eating, or drinking is not allowed in the labs or classrooms.

12. **Smoking is not allowed** in any College of Technology facility.

13. No smoking within 25 feet of building, and please use the receptacles.

14. Students please play hacky sack on the asphalt, not on the lawn.

15. Student parking is provided in the main lot, a place for motorcycles and bicycles are also provided.

16. Students are encouraged to become active in student government activities.
Electronics Technology
Tool List

1. T186 Calculator
2. Engineering Paper
3. Engineering Paper (COT Bookstore)
4. Parts Kit (per semester, per course)
5. Small Sponge
6. Adjustable Pliers
7. Wire Strippers
8. Diagonal Cutters
9. Needle-nose Pliers
10. 1/8” Screwdriver
11. ¼” Screwdriver
12. Phillips #2 Screwdriver
13. Soldering Iron, 25 to 40 watts, 1/16” point tip or smaller
14. Desoldering Iron
15. Solder Stand
16. Electronic Equipment Kit (COT Bookstore)
17. Ground Strap
18. Tool Box
19. Solder wick
20. Solder
21. Drill bits # 62 and #65
22. (60-40 rosin core, fine)
23. Set of small jumper wires, micro grabber or alligator
24. Pad locks for all lockers

Optional
17. Nut driver