

Imperial Valley College
COURSE SYLLABUS FOR:
ELECTRONIC DEVICES (ELTR 120)
4.0 Credit Units.
Ricardo Jimenez, M. Sc.

Course Description:

Recommended Preparation: MATH 080 OR Technical Math. An introduction to the study of electricity and electronics. Basic theories of the physical phenomena involved in circuitry-related devices and measurement instruments. (CSU)

Student Learning Outcomes:

1. Familiarize with Scientific, Engineering Notation and basic Electrical quantities.
2. Describe the functions of DC meters and how each is used in measuring voltage, current and resistance.
3. Analyze series/parallel circuits using Ohm's, Kirchhoff's, mesh analysis and power laws.
4. Construct, test and troubleshoot various series/parallel DC circuits.

Class Hours:

T/R: 8:00-11:10 AM, Room: 3110

Detail Course Schedule:

1. Electricity (Engineering Notation, Conductors, Insulators.)
2. Basic Electrical Quantities (Voltage, Current, Resistance, Power.)
3. Electronic Components and Symbols
4. Ohm's Law
5. Kirchhoff's Law
6. Series Circuits
7. Using Meters
8. Parallel Circuits
9. Mid Term Exam
10. Series-Parallel Combinations
11. Voltage and Current Dividers
12. RC Circuits
13. Magnetism and Magnetic. Units for Electromagnetic induction
14. Troubleshooting dc circuits
15. Final Examination and Project assigned in class

Discussion Of Assignments And Instructional Methods:

Discussion of assignments and instructional methods will be a combination of all methods of instruction, which can be classified as telling, lecturing, or discussing; showing or demonstrating.

Statement Of Grading Procedures:

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| 1. Homework, Assignments: | 10% |
| 2. Lab. Experiments and Reports: | 30% |
| 3. Mid-Term Exam: | 30% |
| 4. Final Exam: | 30% |

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Attendance Policy:

Students are expected to attend all sessions of the class for which they are registered. It is the student's responsibility to contact instructors regarding any absence. The acceptance of an excuse for an absence, other than an official leave of absence, is at the discretion of the instructor. Students whose continuous, unexcused absences exceed the number of hours a class is scheduled to meet per week (5 hours = one class) may be considered inactive and may be dropped by the instructor. However, there is no responsibility on the part of the instructor to do so.

Textbooks:

Electronics Fundamentals: Circuits, Devices, and Applications. Eight Edition. Floyd & Buchla. Prentice Hall. ISBN: 978-0-13-507295-0.

Required Materials:

Scientific Calculator CASIO fx-115ES or equivalent.

All other materials with the exception of the text book and calculator will be supplied.

Accommodations For Disabilities:

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP & S) office as soon as possible.

Policy On Plagiarism And Cheating:

If cheating or plagiarism is discovered, a student may be dropped from the course with a grade of "F".