

University of Puerto Rico
 Mayagüez Campus
 College of Engineering
 Department of Electrical and Computer Engineering
 Bachelor of Science in Electrical Engineering

Course Syllabus

1. General Information:	
Alpha-numeric codification: INEL 4212	
Course Title: ELECTRONICS LABORATORY II	
Number of credits: 3	
Contact Period: One three-hour laboratory per week.	
Electives in INEL	
2. Course Description:	
English: Experiments and projects with electronic circuits emphasizing their design.	
Spanish: Experimentos y proyectos con circuitos electrónicos poniendo énfasis en su diseño.	
3. Pre/Co-requisites and other requirements:	
Prerequisites: INEL 4211 Co-requisite INEL 4202	
4. Course Objectives:	
To provide the students practical experience in the design, assembly and testing of electronic analog-circuits.	
5. Instructional Strategies:	
<input checked="" type="checkbox"/> conference <input checked="" type="checkbox"/> discussion <input type="checkbox"/> computation <input type="checkbox"/> laboratory <input checked="" type="checkbox"/> seminar with formal presentation <input type="checkbox"/> seminar without formal presentation <input checked="" type="checkbox"/> workshop <input type="checkbox"/> art workshop <input type="checkbox"/> practice <input type="checkbox"/> trip <input type="checkbox"/> thesis <input checked="" type="checkbox"/> special problems <input type="checkbox"/> tutoring <input type="checkbox"/> research <input type="checkbox"/> other, please specify:	
6. Minimum or Required Resources Available:	
7. Course time frame and thematic outline	
Outline	Contact Hours
Regulators and power supplies	1
Feedback amplifiers	1
Frequency response of amplifiers	1
Operational amplifier circuits	1
Norton amplifiers	1
Active filters	1
Sinusoidal oscillators	1
Multivibrators	1
Analog gates	1
A/D, D/A converters	1
Design project	4
Test	1
Total hours: (equivalent to contact period)	15

8. Grading System

Quantifiable (letters) Not Quantifiable

9. Evaluation Strategies (Suggested): The faculty member teaching the course will provide the student with the evaluation strategy he/she will be using throughout the semester. This will be done within the first week of classes.

	Quantity	Percent
<input type="checkbox"/> Exams		
<input type="checkbox"/> Final Exam		
<input type="checkbox"/> Short Quizzes		
<input type="checkbox"/> Oral Reports		
<input type="checkbox"/> Monographies		
<input type="checkbox"/> Portfolio		
<input type="checkbox"/> Projects		
<input type="checkbox"/> Journals		
<input type="checkbox"/> Other, specify: Homework	_____	
TOTAL:		100%

10. Bibliography:

Electronics II Laboratory Manual, UPRM.

11. According to Law 51

Students will identify themselves with the Institution and the instructor of the course for purposes of assessment (exams) accommodations. For more information please call the Student with Disabilities Office which is part of the Dean of Students office (Chemistry Building, room 019) at (787)265-3862 or (787)832-4040 extensions 3250 or 3258.

12. Contribution of Course to meeting the requirements of Criterion 5:

Math	Basic Science	General	Engineering Topic
			√

13. Course Outcomes

**Map to
Program
Outcomes**

- Apply circuit analysis techniques to understand the physical operation of an electrical circuit system. a
- Be able to set up and safely perform basic electrical laboratory procedures. b
- Be able to graphically and verbally represent or describe experimental data sets. b
- Be able to analyze, interpret, and draw conclusions based on experimental data. b
- Be able to work in teams to complete laboratory work and assignment. d
- Be able to interpret and draw electrical schematic diagrams. g
- Simulate electrical circuits using commercially available software for circuit analysis. k

Person(s) who prepared this description and date of preparation: Dr. Raúl E. Torres, Feb 2007. Revised by: Academic Affairs Committee, May 15, 08.

