

# ECE241: FUNDAMENTALS ELECTRICAL ENGR: WINTER 2008

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	Recitation:	TBA	
Laboratory:	ECE24L	Wed 16.00-18.50	FAB60-01
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“Circuits, Devices and Systems” 5<sup>th</sup> Edition, Ralph J. Smith & Richard C. Dorf (Wiley, 1992)

Course information posted for download at <http://www.ece.pdx.edu/~jmorris/ece241> (labs, notes)

Week	Mon Lecture 12.00-13.50	Wed Lecture 12.00-13.50	Wed Lab
1	Jan 07-09 1. Intro; Chapter 1	2. Kirchoff, sources, ckts (2.2)	
2	Jan 14-16 3. Circuit theory (2.3-2.4)	4. Signals (3.2-3.5)	1. Lab instruments
3	Jan 21-23 MLK (PSU closed)	5. Op amps (3.6, Ch 16)	2. DC resistor circuits
4	Jan 28-30 6. Diodes I (3.6)	7. Diodes II (Ch 11)	3. Op amp applic'ns
5	Feb 04-06 8. Transients I (Ch 4)	9. Transients II (Ch 6)	4. Diode & diode ckts
6	Feb 11-13 10. AC circuits (Ch 5)	11. AC Power (7.2)	5. Transients
7	Feb 18-20 12. Freq Resp/Reson (7.3-7.4)	TEST (lectures 1-9)	6. AC circuits
8	Feb 25-27 13. Network Theory (Ch 8)	14. Magnetic Circuits (Ch 20)	7. Frequency response
9	Mar 03-05 15. Transformers (Ch 21)	16. Electromechanics (Ch 22)	8. Transformer
10	Mar 10-12 17. Three phase power (7.5)	18. Feedback (Chs 9 & 25?)	
	Mar 20	Final Exam (lectures 10-18): 12.30-14.20 Thur March 20 <sup>th</sup>	

10 problem sets: Assigned in odd-numbered lectures, due 2 lectures later (odd), returned next lecture (even)

Lecture material covered in 10-minute quizzes each even-numbered lecture (previous 2 lectures)

(Note: March 10<sup>th</sup> assignment due March 12<sup>th</sup> for return March 14<sup>th</sup> in ECE Office)

	Unsatisfactory	Satisfactory	Good	Excellent		
Labs/2.5	0	1.5	2.0	2.5		
Assignment/5.0	0	3.0	3.5	4.0	4.5	5.0
Quizzes/2.5	0	1.5	2.0	2.5		

Final grade:

0-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-100
F	D	C-	C	C+	B-	B	B+	A-	A

Grade distribution:	8 labs @ 2.5% each	20%
	8 assignments @ 5% each	40%
	8 quizzes @ 2.5% each	20%
	Test	10%
	Final	<u>10%</u>
	Total	100%

## Course Policies

Quizzes: Quizzes will be closed book, 10 minutes each. Students will be required to memorize a few critical formulas, (and the resistor color code.) Graded quizzes will be returned in the laboratory or recitation.

Collaboration: Students are encouraged to collaborate in preparation for experiments, homework problem assignments, and studying for quizzes. The work itself is then done individually (or in pairs for the lab.) Evidence of cheating (such as filling out experiment sheets in advance by copying the results of a previous group or use in any way of an instructor answer book) can result in grade penalties and severe disciplinary action, in accordance with PSU policies.

There will be no “make-up” or “extra-credit” assignments. Late assignments will not be accepted. Previously excused absences on quiz dates, or those supported by medical documentation, will be handled on an ad hoc basis.

### Laboratory Policy:

NO FOOD OR DRINK IS ALLOWED IN THE LABORATORY OR CLASSROOM

Laboratory Partners: Lab experiments will be performed in pairs. Pair partners may be assigned, and may be changed from one lab to the next. In the case of an odd number of students in a lab section, an individual student may work alone and extra time and assistance from the instructor will be provided if necessary. Triple student groups are not permitted.

Laboratory Experiments: Lab experiment sheets will be available for download and printout from the course website. One experiment sheet will be filled out during the lab session, signed off and graded immediately at the end of each session by a lab instructor. Names of the partners should be entered in the space provided at the top of the lab sheet. The other lab partner's sheet need not be filled out, but will be marked with the grade. Retain your signed, graded lab sheets in case of clerical error in recording the grade. Those few students who cannot attend the scheduled labs sessions must make individual arrangements to perform the experiments at another regular time, recognizing that no TA assistance will be provided, and submit lab reports to the lab TA during office hours in the week in which the lab is scheduled.

Homework: Homework problems are provided along with each lab experiment, as study material to prepare for quizzes. Lab homework will not be collected. Some homework problems may be assigned for completion during the lab period.

Makeup: Unexcused absences will result in a grade of ZERO for each lab session missed. In case of illness, written verification of illness by the health center is required. There is no provision for makeup. Consult with the instructor about grading in case of excused absence.

Lab Kits: Students may elect to purchase components individually from their retail outlet of choice. However, ECE241L lab kits are available for purchase from the Bookstore before the first lab. More information will be available on lab kits in the second lecture. Instrument leads will be provided by the TA at the start of each lab, and collected at the end.