

ECE299 SPST: FUNDAMENTALS ELECTRICAL ENGR: WINTER 2007

Instructor: Prof. J. E. Morris Office: FAB160-13 Tel: (503)725-9588
 Office hours: Mon 09.00-10.00 jmorris@cecs.pdx.edu
 Recitation: Wed 16.00-17.00 Room FAB155
 Laboratory: ECE201-CME Wed 08.30-11.50
 Teaching Asst: Rajeev Nain Office hours: by arrangement rknain@pdx.edu

“Electrical Engineering: Principles & Applications” 3rd Edition, Allan R. Hambley (Pearson/Prentice-Hall)
http://www.prenhall.com/esm_hambley_electengprin_3
 Updates, PSPICE files, Summary Key Equations, In-chapter exercises & selected end-of-chapter problems

Course information posted for download at <http://www.ece.pdx.edu/~jmorris/ece299> (labs, notes)

Week	Mon Lecture	Wed Lecture	Wed/(Fri Lab
1	Jan 08-09 1. V, I, R, & power (1.1-3)	2. Kirchoff, sources, ckts (1.4-7)	
2	Jan 15-17 MLK (PSU closed)	3. Resistive circuits (2.1-3)	1. Lab instruments
3	Jan 22-24 4. DC circuit analysis (2.4-5)	5. Equivalent circuits (2.6-8)	[SPICE tutorial]
4	Jan 29-31 6. Induct & capac (3.1-7)	7. 1 st -order Transients (4.1-4)	2. DC resistor circuits
5	Feb 05-07 8. 2 nd -order Transients (4.5)	9. AC signals/impedance (5.1-4)	3. Transients
6	Feb 12-14 10. AC circuits (5.5-6)	11. Freq/Bode response (6.1-4)	4. AC circuits
7	Feb 19-21 12. Resonance/filters (6.5-8)	13. Magnetic circuits (15.1-2)	5. Frequency response
8	Feb 26-28 14. Transformers (15.3-6)	15. Diodes (10.1-5)	6. Transformer
9	Mar 05-07 16. Diode circuits (10.6-8)	17. Op amps I (14.1-5)	7. Diode & diode ckts
10	Mar 12-14 18. Op amps II (14.6-9)	19. Three phase (5.7)	8. Op amp applic'ns
	Mar 19	Final Exam: 10.15-12.05 Mon March 19 th	

10 problem sets: Assigned in even-numbered lecture, due 2 lectures later (even), returned next lecture (odd)
 Lecture & assignment material covered in 10-minute quiz next lecture (even)
 (Note: March 12th assignment [#9 Op-amps] due March 14th and last assignment [March 14th #10 Three-phase] due 5pm March 15th with both available from ECE Office at 2pm Fri 16th)
 Final exam: Quizzes 8, 9 & 10, (i.e. diodes, op-amps, & 3-phase,) plus a comprehensive review.

Grade distribution:	8 labs @ 2.5% each	20%
	10 assignments @ 5% each	50%
	10 quizzes @ 2% each (7 + 3 at final exam)	20%
	Comprehensive final (1 hour after quizzes)	10%
	Total	100%

Grading plans:

	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/2.0	0	1.0	1.5	2.0		

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

The ECE299/201 combination will operate as a single 5-credit course, with the same letter-grade returned for both. (A combined ECE241 5-credit course was recently approved as the future equivalent of 299/201)

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) 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. Register for the CME (or MCE) section of ECE201 ONLY; the other sections of ECE201 have different experiments for ECE221. 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, the IEEE student branch offers convenience and the advantage of bulk buying by making up ECE299 lab kits. More information will be available on lab kits in the second lecture. Lab kits will be available before the first lab. Instrument leads will be provided by the TA at the start of each lab, and collected at the end.