

**UNIVERSITY OF MASSACHUSETTS LOWELL**  
**DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING**

16.201      INTRODUCTORY CIRCUIT THEORY I

FALL 2005

SYLLABUS AND COURSE POLICY

*Instructor:*    Prof. Kavitha Chandra  
 Professor, Electrical and Computer Engineering  
*Office:* Falmouth 203      *Tel:* (978) 934 3356  
*Email:* [kavitha\\_chandra@uml.edu](mailto:kavitha_chandra@uml.edu)  
*Office Hours:* Wed/Fri : 3-4:30 pm

*Text:*            Fundamentals of Electric Circuits,  
 Charles K. Alexander and M. N.O. Sadiku, McGraw-Hill

*Web Site:*     <http://morse.uml.edu/Activities.d/circuits/circuits201.html>

<b>Week of</b>	<b>Topics</b>	<b>Chapter</b>	<b>HW / Quiz / Exam</b>
9/7 – 9/9	1. Introduction, Units, Charge, Current 2. Voltage, Power, Circuit Elements	1.1-1.3 1.4-1.6	HW 1
9/12 – 9/16	3. Ohms Law 4. Nodes, Branches, Loops; Kirchoff's Laws 5. Voltage and Current Division	2.1-2.2 2.3-2.4 2.5-2.6	HW 2  <b>HW Quiz 1</b>
9/19-9/23	6. Nodal Analysis 7. Mesh Analysis 8. Nodal and Mesh Analysis Contd.	3.1-3.3 3.4-3.6	HW 3
9/26-9/30	9. Review 10. Linearity, Superposition 11. Chapters 1,2,3	4.1-4.3	HW 4 <b>Hour Exam I</b>
10/03-10/07	12. Source Transformations 13. Thevenin's Theorem 14. Norton's Theorem	4.4 4.5 4.6	  <b>HW Quiz 2</b>
10/12-10/14	15. Maximum Power Transfer 16. Op-Amps	4.8 5.1-5.4	HW 5
10/17-10/21	17. Review 18. Capacitors & Inductors 19. Series and Parallel Connections	6.2, 6.4 6.3, 6.5	HW 6
10/24-10/28	20. Chapters 3 and 4 21. Capacitors and Inductors Applications 22. First-order circuits: Source-free RC circuit	6.6 7.2	HW Quiz 3 HW 7
10/31-11/04	23. Source-free RL circuit 24. Singularity Functions 25. Chapters 4,5,6	7.3 7.4	  <b>Hour Exam II</b>

11/07-11/09	26. Step response of an RC Circuit 27. Step response of an RL circuit	7.5 7.6	<b>HW Quiz 4</b>
11/14-11/18	28. Applications: RC/RL circuits 29. Second-order circuits 30. Source-Free RLC Circuit	8.1-8.2 8.3	HW 8
11/21-11/23	31. Source-Free Series RLC circuit contd.		<b>HW Quiz 5</b>
11/28-12/02	32. Source-Free Parallel RLC circuit 33. Chapters 6, 7 & 8	8.4	<b>Hour Exam III</b>
12/05-12/09	34. Forced response of second-order circuits 35. Step Response of Series/Parallel RLC	8.5, 8.6	
12/13-12/14	36. Course Review .		
12/16-12/22	<b>FINAL EXAM AS SCHEDULED</b>		

**NOTE:**

Hour Exam I (Chapters 1, 2, 3)      Friday, September 30, 2005  
Hour Exam II (Chapters 4,5,6 )      Friday, November 11, 2005  
Hour Exam III (Chapters 6, 7, 8)      Friday, December 02, 2005

◆ Final Exam (3 hours) will include all material and be held on scheduled day

**Exam/Quiz Policy:**

- ◆ There will be no makeup hour exams or makeup quizzes.
- ◆ If an hour exam is missed for a *valid* reason, the final exam grade will be substituted for missed exam.

**Homework Policy:**

- ◆ Homework assignments and solutions will be posted on the web site. It is your responsibility to download the homework and submit on time. Due dates will be posted.
- ◆ *Neatness Counts !* Turn in homeworks that are neatly written with problems and pages numbered. State the logic/theory applied in solving the problem and show all of the mathematical analysis applied in arriving at the solutions.

**Grading Policy:**

Homework Quizzes	15%
3 Hour Exams	45%
Final Exam	30%
Homeworks	10%