

ME218a Course Syllabus

Lecture/Lab Calendar

Lecture	Reading (to be completed before the lecture)	Out	Due
0 Thur. 9/27/01 Course Introduction	none	Lab 0	
1 Tue. 10/2/01 Basic Circuits Review	H&H Sections 1.01-1.05, 1.11-1.19, 1.23-1.24, 1.34 (var. resistors only) Appendix C & D		
2 Thur. 10/4/01 Semi-Conductors	H&H Sections 1.06, 1.25-1.26, 1.30-1.31, 2.01-2.02, 2.16, 3.01-3.02, 3.09, Appendix G		Lab 0
3 Tue. 10/9/01 Transistors as Components of Logic	H&H Sections 8.01-8.11, ' <i>Design Considerations</i> ',	Lab 1	
4 Thur. 10/11/01 Real Gates & Combinatorial Logic	H&H Sections 8.12-8.13, 8.33-8.35		Pre-Lab 1
5 Tue. 10/16/01 Combinatorial and Sequential Logic Design	H&H Sections 8.16-8.26 (Skip 8.21), 8.29	Lab 2	Lab 1
6 Thur. 10/18/01 Choosing and Using Semiconductors	Course Notes: Bipolar Transistor Data Sheet Tutorial, Explanation of Ratings and Characteristics, Choosing a Power Transistor, H&H Section 6.04		Pre-Lab 2
7 Tue. 10/23/01 Transistors & Logic Design Revisited	None	Mid-Term	Lab 2
8 Thur. 10/25/01 Rapid Prototyping	H&H 4.24	Project	Mid-Term Fri
9 Tue. 10/30/01 Design Review	No Reading, But prepare preliminary project designs for review in class		
10 Thur. 11/1/01 Welcome to the Analog World	H&H Sections 4.01-4.06, 4.08-4.09		
11 Tue. 11/06/01 Choosing and Using OpAmps	H&H Sections 4.22, 4.26, 4.31, 4.32, 7.07, 7.09-7.10		
12 Thur. 11/08/01 The OpAmp's Cousin, the Comparator	H&H Section 9.07, 4.23-4.24 App. Note AN-74 Comparators		
13 Tue. 11/13/01 Project Review	None		Project-Mon.
14 Thur. 11/15/01 Introduction to Microprocessors & Introduction to Forth	Course Notes: What is Forth?, Starting Forth Chapters 1,2, 4	Lab 3	
15 Tue. 11/20/01 Introduction to the SPDL Development Environment	Course Notes: C in One Easy Lesson; The Art & Science of C: Chapters 3,4 & 5		Pre-Lab 3

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16	Tue.	11/27/01	The Art & Science of C: Chapter 7, .8.1, 8.3-8.5, Chapter 10 Course notes: Examples of Pseudo-Code, Programmers Interface to the 68HC11, Building Modules in Not Hard, Really	Lab 4	Lab 3
17	Thur.	11/29/01	Prepare and bring to class a proposed software design for Lab 4		Pre-Lab 4
18	Tue.	12/04/01	None		
19	Thur.	12/06/01	None	Final	Lab 4

Lab Descriptions

Number	Material	Language(s)
Lab 0	Basic Circuits Review & Introduction to the Laboratory	None
Lab 1	REAL Behavior of Gates	None
Lab 2	Sequential Logic Experiments	None
Lab 3	Programming I/O Devices, An LCD Display Module	Forth & C
Lab 4	Digital Signal Conditioning & Data Interpretation, A Morse Code Receiver	Forth & C
Project	Presentation to be 7:00pm the evening of 11/12/01, Guests are welcome.	None

Examinations

Quizzes will be given at unannounced and irregular intervals during the quarter

Midterm Take Home, Out on 10/23/01, Due on 10/26/01

Final Take Home, Out on 12/6/01, Due on 12/13/01