

# ECE 3600

Tentative

A. Stolp

08/09/11

## COURSE SCHEDULE

Week	Date	lect	Topics	Textbook
1	T 08/23	1	Introduction, Energy sources, generation, & environment	notes
	Th 08/25	2	Review of steady-state AC and phasors	1.1,2, notes
2	Lab	3	Review of RMS, Single-phase AC power, P, Q, S,  S , pf, pf correction	notes, 1.8
	T 08/30		Field Trip - Gadsby Power plant (in place of lab but at class time)	
	Th 09/01		Field Trip (Alt)	
3	M 09/05		Labor Day	
	T 09/06	4	3-phase power, Y- and delta-connections	2.1-2
	Th 09/08	5	3-phase power, balanced systems	2.4-5
4	Lab		First lab: Electrical safety & Power factor correction	
	T 09/13	6	3-phase power, Efficiency, One-line diagrams,	2.6, 1.4
	Th 09/15	7	Electromagnetics, Ideal transformers	1.4
5	T 09/20	8	Transformers, Model of the non-ideal transformer	3.1-4
	Th 09/22	9	Per-unit system, Transformer voltage regulation	3.5-8
6			Lab 2: Iron cores & transformer model	
	T 09/27	10	Autotransformers, 3-phase, Transformer ratings, etc.	3.9-12
	Th 09/29		Exam 1	
7	T 10/04	12	Rotational Motion, AC Machinery Fundamentals	1.3, Ch 4
	Th 10/06	13	Synchronous machines	5.1-4
	S 10/08		Fall Break	
	Su 10/16			
8	Lab		Field Trip - Rocky Mountain Power dispatch & substation (in place of lab)	
	T 10/18	14	Synchronous machines as generators	5.4-8
	Th 10/20	15	Synchronous machines as motors, pf correction	5.9-13
9	M 10/24		Lab 3: Synchronous machines, Connection to the "line"	
	T 10/25	16	Synchronous generator on line	Ch 6
	Th 10/27	17	3-phase Induction motors	Ch 7
10	M 10/31		Field Trip - TBA (alternates with lab 3)	
	T 11/01	18	Single-phase Induction motors	Ch 7
	Th 11/03	19	DC motors	Ch 8
11	T 11/08	20		
	Th 11/10		Exam 2	
12	Lab		Lab 4: Induction motors	
	T 11/15	21	DC motors	Ch 8
	Th 11/17	22	DC motors	Ch 8
13	T 11/22	23	Transmission lines and models	Ch 9
	Th 11/24		Thanksgiving	
14	Lab		Lab 5: DC motors	
	T 11/29	24	Transmission line models and calculations	Ch 9
	Th 12/01	25	Symmetrical faults	Ch 12
15	T 12/06	26	Faults, The 3 "sequences"	Ch 12, 13
	Th 12/08	27	Unsymmetrical faults	Ch 13
	F 12/09		Review, 2:00	
16	F 12/16		Final Exam, 1:00 - 3:00 PM	