

# ECE 3600

A. Stolp

Tentative

08/16/23

## Fall 2023 COURSE SCHEDULE

Week	Date	lect	Topics	Textbook
1	T 08/22	1	Introduction, Energy sources, generation, & environment	1.1
	Th 08/24	2	Review of steady-state AC and phasors	notes, 1.2
2	T 08/29	3	RMS, Single-phase AC power	notes, 1.8
	Th 08/31	4	Single-phase AC power, P, Q, S,  S , pf, pf correction	notes, 1.8
3	M 09/04		Labor Day	
	T 09/05	5	3-phase power, Y- and delta-connections	2.1 - 3
	Th 09/07	6	3-phase power, balanced systems, efficiency, One-line diagrams	2.4 - 6
4	T 09/12	7	One-line diagrams, Electromagnetics, Ideal transformers, Ratings	1.4, Ch 3
	Th 09/14	8	Transformation of impedance, Model of the non-ideal transformer	3.4 - 5
5	T 09/19	9	Non-ideal transformer, Voltage reg., Autotransformers, 3-phase, etc.	3.7 - 10
	Th 09/21		Exam 1	
6	T 09/26	10	Per-unit system, One-line diagrams	3.6, 10.1
	Th 09/28	11	Per-phase, Per-unit	3.6, 10.2
7	T 10/03	12	Rotational Motion, AC Machinery Fundamentals, Synchronous machines	1.3, Ch4, 5
	Th 10/05	13	Synchronous machines as generators, Placing generator on line	5.1-6,8,Ch 6
	S 10/07		Fall Break	
	Su 10/15			
8	T 10/17	14	Synchronous machines as motors, pf correction, 3-phase Induction motors	5.9 - 13
	Th 10/19	15	3-phase Induction motors, examples	7.1 - 5
9	T 10/24		Exam 2	
	Th 10/26	16	3-phase Induction motors, tests	7.6 - 10
10	T 10/31	17	Single-phase Induction motors, DC motors	notes, 8.1-2
	Th 11/02	18	DC motors	8.4 - 9
11	T 11/07	19	DC motors	notes, 8.10
	Th 11/09	20	Finish DC motors, Transmission lines	notes, 9.1-5
12	T 11/14	21	Transmission line models and calculations	9.8-9, 9.6
	Th 11/16		Exam 3	
13	T 11/21	22	Finish transmission lines, Power Flow	10.1-3, 11.1
	Th 11/23		Thanksgiving	
14	T 11/28	23	Power Flow example, Faults	11.1-3, 12
	Th 11/30	24	Types of faults, The 3 "sequences"	Ch 12 - 13
15	T 12/05	25	Sequence Impedances, Protection, ME Design Day	Ch13, notes
	Th 12/07	26	Protection	notes
	F 12/08		Read Day	
16	M 12/11		Final 1:00	
	F 12/15		Freedom	