

# ECE 3600

A. Stolp

Tentative

08/10/24

## Fall 2024 COURSE SCHEDULE

Week	Date	lect	Topics	Textbook
1	T 08/20	1	Introduction, Energy sources, generation, & environment	1.1
	Th 08/22	2	Review of steady-state AC and phasors	notes, 1.2
2	T 08/27	3	RMS, Single-phase AC power	notes, 1.8
	Th 08/29	4	Single-phase AC power, P, Q, S,  S , pf, pf correction	notes, 1.8
3	M 09/02		Labor Day	
	T 09/03	5	3-phase power, Y- and delta-connections	2.1 - 3
	Th 09/05	6	3-phase power, balanced systems, efficiency, One-line diagrams	2.4 - 6
4	T 09/10	7	One-line diagrams, Electromagnetics, Ideal transformers, Ratings	1.4, Ch 3
	Th 09/12	8	Transformation of impedance, Model of the non-ideal transformer	3.4 - 5
5	T 09/17	9	Non-ideal transformer, Voltage reg., Autotransformers, 3-phase, etc.	3.7 - 10
	Th 09/19	10	Per-unit system, One-line diagrams	3.6, 10.1
6	T 09/24	11	Per-phase, Per-unit	3.6, 10.2
	W 09/25		Exam 1	
	Th 09/26	12	Rotational Motion, AC Machinery Fundamentals, Synchronous machi	1.3, Ch4, 5
7	T 10/01	13	Synchronous machines as generators, Examples	5.1-6, Ch 6
	Th 10/03	14	Placing generator on-line, Sync machines as motors, pf correction	notes
	S 10/05		Fall Break	
	Su 10/13			
8	T 10/15	15	Sync motor examples, Starting Sync motors, 3-phase Induction motor	5.9 - 13
	Th 10/17	16	3-phase Induction motors, examples	7.1 - 5
9	T 10/22	17	3-phase Ind motor examples	7.6 - 8
	W 10/23		Exam 2	
	Th 10/24	18	3-phase Ind motor types, tests, Single-phase Induction motors	7.9-10,notes
10	T 10/29	19	Single-phase Induction motors, DC motors	notes, 8.1-2
	Th 10/31	20	DC motors	8.4 - 9
11	T 11/05	21	DC motors & loads	8.10, notes
	Th 11/07	22	Finish DC motors, Transmission lines	notes, 9.1-5
12	T 11/12	23	Transmission line models and calculations	9.8-9, 9.6
	W 11/13		Exam 3	
	Th 11/14	24	Finish transmission lines, Power Flow	10.1-3, 11.1
13	T 11/19	25	Power Flow & example	8.1
	Th 11/21	26	Faults	Ch 12 - 13
14	T 11/26	27	Types of faults, The 3 "sequences"	Ch13, notes
	Th 11/28		Thanksgiving	
15	T 12/03	28	Sequence Impedances, Protection, ME Design Day	notes
	Th 12/05	29	Protection	notes
16	M 12/09		Review	
	T 12/10		Final 1:00	
	F 12/13		Freedom	