

EET 3710L - Electrical Machines Lab

Fall 2026 Syllabus, Section 01, CRN 41930,

Credit hours: 1

Instructor

Jason Zapka

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Public Instructor Information

Instructor Title: Associate Professor

Instructor Professional Qualifications: M.S., Electrical Engineering, Youngstown State University, 2010; B.E., Electrical Engineering, Youngstown State University, 1998

Instructor Office Location: Moser Hall Room 4104

Instructor Office Phone: (330)-941-3816

Course Description

3710L. Electrical Machines Lab. Experiments with DC motors and generators and AC transformers, alternators, induction and synchronous motors to observe operation, efficiency, control and machine characteristics. Three hours per week. Concurrent with EET 3710. 1 s.h.

Course Readings

Group	Title	Author	ISBN
	no readings		

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Thu	8/27	Chapter 4	Safety	
Thu	9/3	Chapter 2 Chapter 5 Chapter 6	Control Circuit Symbols Control Logic Mechanical Input Devices	
Thu	9/10	Chapter 7 Chapter 8	Solenoids Electromagnetic Relays	Due 9/10 at 11:59pm: Lab #1 Control Circuit Wiring
Thu	9/17	Chapter 15	Reversing Circuits	Due 9/17 at 11:59pm: Lab #2 Relays
Thu	9/24		MG Set Safety Review	Due 9/24 at 11:59pm: Lab #3 Reversing Circuits
Thu	10/1	Chapter 21 Chapter 12	Prox Sensors, Switches, other Sensors Contactors	Due 10/1 at 2pm: MG Set Safety Review
Thu	10/8	Chapter 9	DC Generators	Due 10/8 at 11:59pm: Lab #4 Sensors and Contactors
Thu	10/15	Chapter 11	Transformer Characteristics	Due 10/15 at 11:59pm: Lab #5 DC Generator Characteristics
Thu	10/22	Chapter 10	AC Generator	Due 10/22 at 11:59pm: Lab #6 Transformer Characteristics
Thu	10/29	Chapter 14	AC motors	Due 10/29 at 11:59pm: Lab #7 AC Generator Characteristics

Thu	11/5	Chapter 16	Timing and Counters	Due 11/5 at 11:59pm: Lab #8 Induction Motor Characteristics
Thu	11/12			Due 11/12 at 11:59pm: Lab #9 Timers and Counters Motor Repair Shop Visit
Thu	11/19	Chapter 19	Reduced Voltage Starters	Due 11/19 at 2pm: ABET Report Due 11/24 at 11:59pm: Lab #10 Reduced Voltage Starters
Thu	11/26	No Class		
Thu	12/3		Presentation Guidelines	Due 12/3 at 2pm: ABET Presentation

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.