

When and where	Lecture Palmer 3190 12:55-2:15 – T,R	Lab (Sec 002) – NE 2330 – 11:05-12:45 pm T Lab (Sec 003) – NE 2330 – 11:05-12:45 pm R Lab (Sec 007) – NE 2330 – 9:25-11:05 am T
Instructor	Prof. Wm Ted Evans, PhD, PE (Ohio)-Office: NE 1607, Phone 419-530-3349, cell 419-343-3681 Email: William.evans@utoledo.edu web: www.eng.utoledo.edu/~wevans	
Office Hours	9:30-12:00 M,W	
Prerequisite	Prerequisites: varies	
Textbooks	Online text furnished at above website (Foundations of Electronics: Circuits and Devices, (Conventional Flow), 2nd Edition, Russel L. Meade – optional)	
Useful References	ELEGOO Upgraded Electronics Fun Kit w/Power Supply Module, Jumper Wire, Precision Potentiometer, 830 tie-Points Breadboard for Arduino, STM32 by ELEGOO	
Grading	Quizzes 10%, Labs 20%, Hour Exam I 20% Hour Exam II 20%, Final Exam 30% (Comprehensive) (A >= 90, B >= 80, C >= 70, D >= 60)	
	<p>1. No eating, drinking, or smoking in classrooms.</p> <p>2. There are no make-up exams for this course. If you have a problem or conflict and cannot attend an exam, let me know beforehand and we will try to work something out. No credit will be given for a missed exam that we haven't made arrangements about beforehand unless you have a really excusable emergency. Cell phone use will not be allowed. If you do not have a calculator, buy one and bring it to class.</p> <p>Cheating is not allowed and will be punished by rules of U of Toledo Student Handbook.</p> <p>Read the restart text at: https://www.utoledo.edu/rocket-restart/signage/pdf/rocket-restart-manual.pdf</p>	
Catalog descriptions	This course constitutes an introduction to basic analytical and laboratory techniques for resistive and reactive DC and AC electric circuits, and an introduction to electronic devices, including diodes and transistors.	
Topics and reading assignments (subject to change, any changes will be notified in the class beforehand)	1. Basic electrical components and quantities 2. Definitions of voltage, current and electrical resistance 3. Ohm's Law, electrical energy and power 4. Series DC circuit analyses 5. Parallel DC circuit analyses 6. Series / parallel DC circuit analyses 7. Circuit theorems – superposition and Thevenin's theorem 8. Basic mesh current analysis techniques 9. Sinusoidal waves 10. Inductors in DC circuits 11. RL circuits with AC sources 12. Transformers 13. Capacitors in DC circuits 14. RC circuits with AC sources 15. RLC circuits with AC sources 16. Semiconductors and diodes 17. Introduction to transistors 18. Introduction to National Electric Code (NEC)	
Related Program Outcomes	<ul style="list-style-type: none"> • An understanding of the analytical skills associated with electrical engineering technology, as evidenced by the ability to perform analyses of the transient behavior of RLC circuits with Laplace transforms • An ability to use creativity in the design of electrical systems as evidenced by the use of simulation software to iteratively solve a circuit design problem regarding transient behavior • An ability to identify, analyze and solve technical problems associated with Electrical Engineering Technology as evidence by the ability to create a transfer function for an electrical system based on computer simulations of the system step response • An ability to communicate effectively, as evidenced by written reports 	
Class dates (Exam dates are subject to change.)	Fall Session 2020 – 15 weeks starting 8-17-20 and ending 12-4-20	
	<p>Quizzes may occur any day at the end of the class period.</p> <p>If a student chooses to take the course remotely, then they are responsible for chapter reviews counting 1 point per review. These substitute for the quiz grade.</p> <p>Students wanting face-to-face may add to their quiz grade by submitting chapter reviews again counting 1 point per review.</p> <p>Labs taken remotely require the student to review the video of the lab and write a report of the lab as if they were in the lab.</p> <p>If a student chooses remote, then he/she will be required to take test 1,2 at the testing center unless they are remote to the Toledo area.</p>	

ELEGOO Upgraded Electronics Fun Kit w/Power Supply Module, Jumper Wire, Precision Potentiometer, 830 tie-Points Breadboard for Arduino, STM32

by [ELEGOO](#)

[4.6 out of 5 stars 1,083 ratings](#)

| [104 answered questions](#)

Price: \$17.98

Aug. 18, 2020		Introduction	No Assignment
Aug. 20, 2020		Chapter 1 – Video	Prob. .1.1-1.7 (not to hand in)
Aug. 25, 2020		Chapter 2 – Video	
Aug. 27, 2020		Chapter 2 – Video	Prob. 2.1-2.10 (not to hand in)
Aug. 25 or 27		Lab 1	Due – 9-3
Sept 1, 2020		Chapter 3a – Video	
Sept. 3, 2020		Chapter 3b – Video	Prob. 3.1-3.35 (not to hand in)
Sept. 1 or 3		Lab 2	Due 9-10
Sept. 8, 2020		Chapter 3c – Video	
Sept. 10, 2020		Chapter 4a - Video	
Sept. 8 or 10		Lab 3	Due 9-17
Sept. 15, 2020		Chapter 4b - Video	
Sept. 17, 2020		Chapter 5 - Video	
Sept. 15 or 17		Lab 4	Due 9-24
Sept. 22, 2020		Review	
Sept. 24, 2020		Review	
Sept. 22 or 24		Lab 5	Due. 10-1
Sept. 29, 2020		Hour Exam I	
Oct. 1, 2020		Hour Exam I	
Sept. 29 or Oct. 1		Lab 6	Due 10-8
Oct. 6, 2020		Chapter 6a - Video	
Oct. 8, 2020		Chapter 6b - Video	
Oct. 6 or 8		Lab 7 – No Report	https://www.youtube.com/watch?v=u4zyptPLlJI
Oct. 13, 2020		Chapter 7a - Video	
Oct. 15, 2020		Chapter 7b - Video	
Oct.13 or 15		Lab 8	Due 10-22
Oct. 20, 2020		Chapter 8a - Video	
Oct. 22, 2020		Chapter 8b - Video	
Oct.20 or 22		Lab 9	Due 10-29
Oct. 27, 2020		Chapter 9a - Video	
Oct. 29, 2020		Chapter 9b, c - Videos	
Oct.27 or 29		Lab 10	Due 11-5
Nov. 3, 2020		Hour Exam 2	
Nov. 5, 2020		Hour Exam 2	
Nov. 3 or 5		Lab 11	Due 11-12
Nov. 10, 2020		Chapter 10 - Video	
Nov. 12, 2020		Chapter 10 - Video	
Nov. 10 or 12		Lab 12	Due 11-19
Nov. 17, 2020		Chapter 11 - Video	
Nov. 19, 2020		Chapter 11 - Video	

Nov. 17 or 19		Lab 13	Due 12-1
		Final	To Be Announced

Tuesday In-Class Lecture 12:55-2:15 pm Palmer Hall 3190

1	Aldawlah, Saleh M.	R
2	Ali, Rida F.	R
3	Aljohani, Mohammed	R
4	Almroth, Nicholas C.	
5	Asher, Logan W.	R
6	Axelsen, Denver	
7	Ball, Jacob K.	
8	Barr, David M.	
9	Burton, Allen K.	
10	Butler, Taron E.	
11	Carter, Austin T.	
12	Coen, Justin	
13	Coffman, Nicholas D.	R
14	Cook, Brendan W.	
15	Deneweth, Tyler E.	
16	Desale, Manas M.	
17	Dominique, Jacob	R
18	Feng, Yaokun	
19	Hamlin, Joshua D.	
20	Haynes, Brendon S.	
21	Heath, Hunter H.	R
22	Henry, Jacob	
23	Hoffman, Josh	
24	Hoppe, Brendan S.	
25	Horvath, Colin T.	
26	Jiang, Zijian	
27	Kharade, Sagar R.	

Thursday In-Class Lecture 12:55-2:15 pm Palmer Hall 3190

28	Korak, Noah K.	R
29	Leeper, Nicholas J.	
30	Leffler, Joseph A.	
31	Lotko, Joshua T.	
32	Mack, Trevor L.	
33	Manning, Geneico J.	
34	Newell, Charles W.	
35	Pappas, Simon V.	
36	Parker, Frank B.	
37	Patrick, Lucas D.	
38	Pierce, Michael E.	
39	Putman, Zachary D.	
40	Romstadt, Jack A.	R
41	Ruhlen, Rebecca	
42	Schramm, Amanda K.	
43	Sheets, Cody A.	
44	Snodgrass, Andrew T.	
45	Snyder, Aaron	R
46	Sohail, Taha	
47	Spradlin, Reece P.	
48	Tansel, Sage R.	R
49	Teka, Sara M.	R
50	Wagner, Collin D.	
51	Watkins, Austin H.	
52	Weithman, Nathan T.	
53	Wirtz, Aaron A.	R
54	Wyzykowski, Owen	

Section 2 Lab Tuesday 11:05 am - 12:45 pm NE 2330

Labs 1,3,5,7,9,11 in class

- 1 Axelsen, Denver
- 2 Ball, Jacob K.
- 3 Deneweth, Tyler E.
- 4 Desale, Manas M.
- 5 Feng, Yaokun
- 6 Horvath, Colin T.
- 7 Mack, Trevor L.
- 8
- 9
- 10

Labs 2,4,6,8,10,12 in class

- 11 Newell, Charles W.
- 12 Putman, Zachary D.
- 13 Ruhlen, Rebecca
- 14 Sheets, Cody A.
- 15 Spradlin, Reece P.
- 16 Watkins, Austin H.
- 17 Wyzykowski, Owen
- 18
- 19
- 20

Section 3 Thursday 11:05 am - 12:45 pm NE 2330

Labs 1,3,5,7,9,11 in class

- 1 Almroth, Nicholas C.
- 2 Burton, Allen K.
- 3 Coen, Justin
- 4 Cook, Brendan W.
- 5 Hamlin, Joshua D.
- 6 Henry, Jacob
- 7 Jiang, Zijian
- 8
- 9
- 10

Labs 2,4,6,8,10,12 in class

- 11 Kharade, Sagar R.
- 12 Lotko, Joshua T.
- 13 Pappas, Simon V.
- 14 Patrick, Lucas D.
- 15 Pierce, Michael E.
- 16 Schramm, Amanda K.
- 17 Sohail, Taha
- 18 Wagner, Collin D.
- 19 Weithman, Nathan T.
- 20

Section 7 Tuesday 9:25-11:05 am NE 2330

Labs 1,3,5,7,9,11 in class

- 1 Barr, David M.
- 2 Butler, Taron E.
- 3 Carter, Austin T.
- 4 Haynes, Brendon S.
- 5 Hoffman, Josh
- 6 Hoppe, Brendan S.
- 7 Leffler, Joseph A.
- 8 Leffler, Joseph A.
- 9
- 10

Labs 2,4,6,8,10,12 in class

- 11 Manning, Geneico J.
- 12 Parker, Frank B.
- 13 Snodgrass, Andrew T.
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