

Instructor: M.J. Papa

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Class Hours

Section	Day/Time	Room
4755	MW 12-1:30 pm	1447, Bussman Hall
Office Hours	MW 4:00-5:30 pm TTh 4:30-5:30 pm	1490, Bussman Hall
Email contact with instructor-- response within 48 hrs		

Course Description

Basic physical principles as applied to direct and alternating current, basic circuits, units, components, and test equipment. Topics include basic electronics, electrical safety and energy conservation. Household and industrial appliances are evaluated.

Student Learning Outcomes:

1. Perform basic Ohm's Law and Watt's Law calculations.
2. Describe the basic characteristics of capacitors, inductors and transformers.
3. Evaluate the energy efficiency of common energy sources and loads.

Required Textbook

Electricity & Basic Electronics, 8th Edition (by Stephen R. Matt) ISBN 13: 9781605259536.

Grading Policy

The grading values and assignment weights are listed below:

Grade Values	
90-100	A
80-89	B
70-79	C
60-69	D
Less than 60	F

Assignment Weights	
Homework	35%
Quizzes (3)	35%
Final Exam	30%

Quizzes and Exams

The three quizzes and final exam will be open book/notes. You will not be allowed to use your laptop, so print out any notes you might want to use. The final exam will be comprehensive. You must take the final exam in order to pass the class.

Homework Grades

Assignments must be submitted no later than two weeks after the due date. You will receive credit for submitting your completed homework on time and in the correct format. I will not correct your assignments. Two weeks after the due date for each homework assignment I will post the Answer Key in the Getting Started section of the Canvas course site. It is your responsibility to check your homework answers with the Key. Once I release the homework answers I will no longer accept that assignment.

Homework Submission Guidelines

1. You will get credit for submitting homework. The answer key will be posted two weeks after the assignment due date. It is your responsibility to check your homework against the answer key to find any questions that you answered incorrectly. If you have questions bring them to class or email me.
2. Written assignments must be typed into a computer and printed.
3. The first page must show your name, homework number, chapter number, and problem/question numbers assigned. Please put your name in the upper, right hand corner on page 1.
4. Questions and problems should be shown in correct numerical order.
5. Math problems and schematic drawings must be done by hand, in pencil, on engineering paper. Math problems must include all calculation steps with a box drawn around the answer.
6. All questions must include the question and the answer. Answers submitted without the questions will lose 50% of the points assigned to that question.

Late Assignments

Without prior arrangement, late work will be accepted one week after the due date and a 20% deduction will be imposed. When the answer key is posted then that assignment will no longer be accepted late. (The one exception is the last day of class. Your final work must be turned in by the end of the class.) **No assignments will be accepted after the last class session.**

Student Responsibilities

You are responsible for reading the chapters and all lecture material before coming to class. If you stop coming to class, it is your responsibility to drop the course. Failure to do so may result in a failing grade.

Use of Laptops

You may use a laptop or tablet for taking notes as long as it does not become a distraction.

Academic Integrity

I have a zero tolerance policy on cheating. You might want to read the JC's policy on academic integrity and student conduct. Here is a link that might be helpful: <https://student-conduct.santarosa.edu/>

Attendance

Attendance is required. If you miss a class you are still responsible for submitting the assignments.

Cell Phone Policy

The following rules will be enforced. The goal is to prevent cell phone usage from disturbing students and faculty.

- 1.....No Ringing!** All cell phones must be turned off or placed in vibrate mode when entering any lab or classroom.
- 2.....No Talking!** No phone calls may be made or accepted while in any lab or classroom. Students must step outside before initiating phone calls or answering their phone.
- 3.....No Texting!**

No other personal electronic device including personal headphones or wireless cell phone headsets may be used during class.

Important Dates

Date Class Begins:	1/17/2018
Date Class Ends:	5/16/2018
Last Day Add w/o add code:	1/21/2018
Last Day Add with add code:	2/4/2018
Last Day Drop for Refund:	1/28/2018
Last Day Drop w/o W:	2/4/2018
Last Day Drop with W:	4/22/2018
Date Final Exam:	5/23/2018

Accommodations for Students with Disabilities

If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to the instructor as soon as possible. You may also speak with the instructor privately during office hours about your accommodations.

If you have not received authorization from DRD, it is recommended that you contact them directly. DRD is located in Analy Village on the Santa Rosa campus (707) 527-4278, and Jacobs Hall on the Petaluma Campus (707) 778-2491.

LEC 51A Fundamentals of Electricity Spring 2018 Schedule

WEEK	Class Dates Mon Wed		Lecture Topic	Reading Assignment for Next Week	Math Focus Topics	Math Focus Questions	Test Your Knowledge Questions	HW Due Dates
Week 1	No Class	17-Jan	Introduction	Chap 1&2				
Week 2	22-Jan	24-Jan	Chap 1: Learning and Applying the Fundamentals	Chap 3			Chap 1: 1-7	31-Jan
			Chap 2: Sources of Electricity				Chap 2: 1-10	7-Feb
Week 3	29-Jan	31-Jan	Chap 3: Conductors and Insulators	Chap 4	Chap 3: Exponents Scientific Notation	1-8 1-9	Chap 3: 1-13	14-Feb
Week 4	5-Feb	7-Feb	Chap 4: Resistors and Capacitors	Chap 5	Chap 4: Metric Prefixes & Order of Operations	1-8 1-8	Chap 4: 1-12	21-Feb
Week 5	12-Feb	14-Feb	Chap 5: Ohm’s Law	Chap 6	Chap 5: Algebraic Equations	1-8	Chap 5: 1-15	28-Feb
Week 6	No Class	21-Feb	Chap 6: Series Circuits Quiz 1	Chap 7	Chap 6: Adding Fractions	1-8	Chap 6: 1-13	7-Mar
Week 7	26-Feb	28-Feb	Chap 7: Parallel Circuits	Chap 8			Chap 7: 1-11	14-Mar
Week 8	5-Mar	7-Mar	Chap 8: Series-Parallel Circuits	Chap 10 Chap 11	Chap 8: Ratios & Proportions	1-8	Chap 8: 1-10	
Week 9	12-Mar	14-Mar	Chap 10: Magnetism	Chap 12			Chap 10: 1-5	28-Mar
			Chap 11: Alternating Current				Chap 11: 1-13	
SPRING BREAK								
Week 10	26-Mar	28-Mar	Chap 12: Electromagnetic Induction Quiz 2	Chap 13	Chap 12: Square Roots	1-8	Chap 12: 1-13	4-Apr
Week 11	2-Apr	4-Apr	Chap 13: Motors	Chap 14			Chap 13: 1-10	11-Apr
Week 12	9-Apr	11-Apr	Chap 14: Reactance Impedance	Chap 17			Chap 14: 1-15	18-Apr
Week 13	16-Apr	18-Apr	Chap 17: Diodes	Chap 18			Chap 17: 1-14	25-Apr
Week 14	23-Apr	25-Apr	Chap 18: Transistors	Chap 20			Chap 18: 1-11	2-May
Week 15	30-Apr	2-May	Chap 20: Integrated Circuits Quiz 3	Chap 24			Chap 20: 1-11	9-May
Week 16	7-May	9-May	Chap 24: Energy Conservation	Chap 25			Chap 24: 1-14	16-May
Week 17	14-May	16-May	Chap 25: Career Opportunities				Study for Final	
Week 18		23-May	Final Exam					
Note: These dates or assignments may be changed if necessary Latest Revision 12/30/2017								