



New York City College of Technology
Entertainment Technology Department
300 Jay Street, Room V-203 Brooklyn, NY 11201
(718) 260-5588

ENT-1201 Introduction to Electricity for Live Entertainment, Section D212

1 hour 40 minutes lecture, 1 credit

Spring 2020

Professor: Miguel Valderrama

Office: V203

Email: mvalderrama@citytech.cuny.edu

Office Hour(s): Wednesdays 2:30pm-3:30pm and Fridays 6pm to 7pm (V-203 ENT)

Class Meeting Time:

Fridays, 2pm – 3:40pm, V-103A

Course Description:

ENT 1201 is an introduction to Electrical Theory supported on practical examples and emphasizing the safe use of electricity in entertainment and media. This course also covers a quick overview of the most basic devices that manipulate and transform electricity in modern life like Generators, Transformers, Motors, etc. Electrical fundamentals such as **voltage, current, power** and **resistance** are introduced. **Ohm's law** and the **Power law** are covered, using practical examples from the field. Simple **electrical circuits**, including **series and parallel**, are introduced. Specific methods of power generation and distribution are also covered.

Grades:

Your grade will be determined as follows:

Tests: Test # 1 (20%), Final Test (30%)	50%
Electrical Component paper	25%
Quizzes + HW	15%
Class Participation/Attitude	10%

Note: If you miss a quiz or test due to an unexcused absence, you will receive a zero for that test or quiz. If the student has a legitimate excuse (medical) for the absence, he or she will have the chance to change that grade for the Midterm and Final exams only. The test will have to be taken no later than a week after the original date of the test and during the professor's office hours.

There are up to **seven quizzes** that are typically given to ensure that you do the reading, and may contain questions not covered in class but assigned from the book. Do the reading! If a student was not able to submit an assignment or a project on time, he or she will have the chance to present it a week after (following class to the original due date of the assignment). The grade on that assignment or project will be reduced ten (10) points (same as one letter grade) for lateness. No projects or assignments will be accepted more than one week late from the original due date.

Attendance Policy:

If you have a legitimate reason for missing a class, you must contact me mvalderrama@citytech.cuny.edu at least one week before that class begins. Everyone in live experience adversities, if a student misses a class due to an emergency, the student will be responsible for communicating as soon as they can. Also, students will be responsible for updating themselves with the content viewed in that class. Arriving to class on time also counts critically since the quizzes are given during the first five minutes of the class. So please be on time! Being late will not only impact a student's grade but also will impact their capacity of getting re-hired once they start their professional life.

Course Expectations

It is expected for each student taking a one credit class to spend AT LEAST two (2) hours of work outside class. This includes reviewing notes, websites, OERs and doing the homework assigned.

As a college student you are expected to know how to resolve basic math operations; be able to write a self sufficient paper explaining, describing and commenting on any assigned topic related to Electricity for Live entertainment. Use your judgment when presenting a report to the professor, you should be able to deliver information clearly and using the appropriate grammar and compositional rules.

Learning Outcomes

After taking this class, the student will be able to...	This will be demonstrated by...
Recognize and use appropriate terminology for electrical systems and theory.	Tests, assignments, class participation
Evaluate an electronic device for power requirements	Read the manual and report on the electrical ratings for safe use of the device.
Identify and describe an electrical circuit.	Tests, assignments
Recognize and use correct symbols on a circuit diagram	Tests, Homework assignments
Perform calculations using Ohms Law and Power Law. Apply them in example electrical systems.	Tests, Homework assignments
Perform calculations on series and parallel circuits. Apply them in example electrical circuits	Tests, homework assignments
Identify common electrical hazards in the workplace.	Tests, homework assignments
Identify commonly used electrical cables and their safe usage.	Tests, homework assignments

Gen Ed Learning Outcomes

After taking this class, the student will be able to...	This will be demonstrated by...
Systems: Understand and Navigate Systems	Identify components of simple circuits.
Apply information from a variety of sources.	Students will use textbook, electrical codes, manuals, and internet searches in different homework assignments.
Employ quantitative reasoning	Perform electrical calculations to determine voltage, amperage, wattage and resistance of a variety of different circuits. Word problems of real world problems are used.

Academic Integrity Policy (College Policy)

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

ENT1201 SPRING 2020 CALENDAR

	date	day	Topics	Assignments	OER WEB LINKS
1	01/31	Fri	<ul style="list-style-type: none"> - Introduction - Electron theory - Materials and conductivity - Magnets and Magnetism - Electromagnetism and its applications. 	Quiz # 1 (At the end on the class)	<ul style="list-style-type: none"> • <u>Electricity Fundamentals (Wisc Online – Wisconsin University)</u> • <u>Semiconductors fundamentals- James Fiore. Chapter 1 pages 14-27</u> • <u>All about Circuits AAC Chapter 1 Basic concepts of Electricity – Static Electricity</u> • <u>All about Circuits AAC Chapter 1 Basic concepts of Electricity – Conductors, Insulators and Electron flow</u>
2	02/07	Fri	<ul style="list-style-type: none"> - Electricity - Electrical production 	Quiz # 2 Electrical component Project assigned	<ul style="list-style-type: none"> • <u>All about Circuits AAC Chapter 14 – Permanent Magnets</u> • <u>All about Circuits AAC Chapter 15 – Magnetic fields and inductance</u>
3	02/14	Fri	<ul style="list-style-type: none"> - The Electrical Circuit - Voltage, Current and Resistance - Electrical Formulas - Ohm's Law - Watts and the Power Equation 	Quiz #3 Electrical component project B.B. Submissions due	<ul style="list-style-type: none"> • <u>What are Electrical Circuits – AAC</u> • <u>Ohm's Law interactive by Wisc Online (Wisconsin University)</u>
4	02/21	Fri	<ul style="list-style-type: none"> - Test # 1 - Review of test #1 	HW Omh's Law Due	
5	02/28	Fri	<ul style="list-style-type: none"> - Series Circuits - Parallel Circuits - VIRP Tables 	Quiz # 4 Electrical component paper Due	<ul style="list-style-type: none"> • <u>Series Circuits – AAC Video</u> • <u>Parallel Circuits -AAC Video</u>
6	03/06	Fri	<ul style="list-style-type: none"> - AC and DC - Power conversion - Semiconductors and LEDs - Batteries 	Quiz # 5 Read article (Openlab and Blackboard)	<ul style="list-style-type: none"> • <u>LG – Structure of Rechargeable battery</u>
7	03/13	Fri	<ul style="list-style-type: none"> - Over-current protection devices - Grounding - Entertainment Power Distribution overview 		<ul style="list-style-type: none"> • <u>Battery Safety and Protection overview – Texas Instruments</u>
8	03/20	Fri	<ul style="list-style-type: none"> - Test # 2 - Review of test #2 		

