

Assessment: Course Four Column

Courses (CTE) - Electrical Systems Technology

ELM 122- Kelly:AC Theory

<i>Course Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
<p>Inductance and Inductive Reactance in an AC Circuit - Discuss the properties of Inductance and Inductive Reactance in an AC Circuit. Course Outcome Status: Active Next Assessment: 2023-2024</p>	<p>Exam - Using Chapters provided in the text which deal specifically with these two items, the students will be given a number of written exams and oral questions dealing with this subject. Criterion: Successful understanding of Inductance and Reactance, its symbols and calculations.</p>	<p>Reporting Period: 2018-2019 Criterion Met: Yes The students completed their assignments on time. Grade averages were very good. They were enthusiastic to continue on with the other aspects of AC Theory. Results Analysis: I believe the students understood the format presented in the text and can use this knowledge to solve these type of electrical problems. (09/05/2019)</p>	<p>Action: Introduce more sample problems. Carefully explain on the board step-by-step some of the more difficult questions. (09/05/2019)</p>
<p>Impedance in an AC Circuit. Know the symbol and the formula for calculating Impedance in an AC Circuit. - Discuss the importance of Impedance in an AC Circuit. Know the symbol and the formula for calculating Impedance in an AC Circuit. Course Outcome Status: Active Next Assessment: 2023-2024</p>	<p>Exam - Learn and apply Kirchoff's principles to series and parallel circuits. Criterion: Exams, Review questions, Research of Nicholas Tesla on this subject.</p>	<p>Reporting Period: 2018-2019 Criterion Met: Yes All students did very well on this section of Ac Theory. Very interesting Biographies of Mt. Tesla. Which I believe helps overall understanding of AC Theory Results Analysis: Continue text work with additional Impedance problems and calculations for Reactive, Apparent and True Power as it pertains to Ac Theory. (09/05/2019)</p>	<p>Action: Additional sample problems worked at the board by the students showed the greatest potential for improvement and overall understanding. (09/05/2019)</p>
<p>Relationship of Resistance and Inductance in an AC Series Circuit - Know the relationship of Resistance and Inductance in an AC Series Circuit. Course Outcome Status: Active Next Assessment: 2023-2024</p>	<p>Exam - Knowledge and study of material presented in the text specifically dealing with this subject Criterion: Specific exams and Review questions of Resistive/Inductive Series Circuits.</p>	<p>Reporting Period: 2018-2019 Criterion Met: Yes Excellent results mon this subject as evidenced by test scores and written work. Results Analysis: Good text for learning different types of AC electric principles depending on circuit type.</p>	<p>Action: Excellent results. Continue on with current plan. Bring in additional sample problems from another text for ma different point of view. (09/05/2019)</p>

Course Outcomes	Assessment Measures	Results	Actions
(09/05/2019)			
<p>Capacitance in an AC Circuit in both Series and Parallel Circuits - Discuss the factors of Capacitance in an AC Circuit in both Series and Parallel Circuits.</p> <p>Course Outcome Status: Active</p> <p>Next Assessment: 2023-2024</p>	<p>Exam - Learn and apply Kirchoff's principles to series and parallel AC Voltage circuits.</p> <p>Criterion: Exams and written work utilizing specific formulas for this type of AC Theory.</p>	<p>Reporting Period: 2018-2019</p> <p>Criterion Met: Yes</p> <p>Very good student results. This subject is a bit more challenging and formulas dealing with it need more work for a full understanding.</p> <p>Results Analysis :Continue with reading assignments, Review questions, and chapter exams. (09/05/2019)</p>	<p>Action: Use additional mathematical problems/equations from on-line sources. Work on basic AC Lab experiments. (09/05/2019)</p>
<p>Resistive-Inductive-Capacitive Series Circuits. Correct use of AC Test Equipment - Discuss Resistive-Inductive-Capacitive Series Circuits. Correct use of AC Test Equipment.</p> <p>Course Outcome Status: Active</p> <p>Next Assessment: 2023-2024</p>	<p>Exam - Specific AC Theory tests dealing with all three (3) variables in AC Theory.</p> <p>Criterion: Exams on RLC circuits showing voltage and current relationships resulting from the introduction of these elements and how they affect the end result.</p>	<p>Reporting Period: 2018-2019</p> <p>Criterion Met: Yes</p> <p>Students did very well on their exams on this subject. All assignments completed on time. (09/05/2019)</p>	<p>Action: On line videos on this subject, text power point presentations, problems worked in class. (09/05/2019)</p> <p>Follow-Up: This is a very difficult subject and there are many different formulas to be used depending on whether the circuit is in Series or parallel. A formula sheet listing all variations is given out at the start of class and students are required to learn when to know the correct formula to solve for the unknown. (09/05/2019)</p>