



**ELCR-1020 Alternating Current (AC) Circuits
COURSE SYLLABUS
Spring Semester 2021 (202114)**

COURSE INFORMATION

Credit Hours/Minutes: 7 Hours / 6750 Minutes
Class Location: Gillis Building, Room 827, Vidalia Campus
Class Meets: Monday through Thursday (MTWR), 9:00 AM to 11:05 AM
Course Reference Number (CRN): 40142

INSTRUCTOR CONTACT INFORMATION

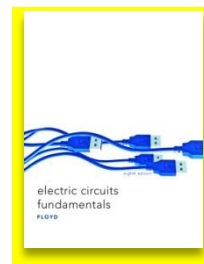
Instructor Name: William Greene
Office Location: Gillis Building, Room 822, Vidalia Campus
Office Hours: By Appointment Only
Email Address: [William Greene \(wgreene@southeasterntech.edu\)](mailto:wgreene@southeasterntech.edu)
Phone: (912) 538-3102
Fax Number: (912) 538-3106
Preferred Method of Contact: Email or Text to Instructor

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Handbook \(https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf\)](https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf).

REQUIRED TEXT

Electric Circuit Fundamentals, 8th ed.
by Thomas L. Floyd,
published by Prentice Hall,
ISBN# 0-13-507293-X



REQUIRED SUPPLIES & SOFTWARE

Engineering / Scientific Calculator (TI-83 Plus or better recommended)

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither Blackboard nor Georgia Virtual Technical Connection (GVTC) provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to take an online course.

Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

This course introduces the theory and application of varying sine wave voltages and current, and continues the development of AC concepts with emphasis on constructing, verifying, and troubleshooting reactive circuits using Resistor Inductor Capacitor (RLC) theory and practical application. Topics include AC wave generation, frequency and phase relationship, impedance, admittance, and conductance power factors, reactive components simple RLC circuits, AC circuit resonance, passive filters, and non-sinusoidal wave forms.

MAJOR COURSE COMPETENCIES / COURSE OUTLINE

1. AC Wave Generation
2. Frequency and Phase Relationships
3. Impedance, Admittance, and Conductance, Power Factors
4. Reactive Components
5. Simple RLC Circuits
6. AC Circuit Resonance
7. Passive Filters
8. Non-sinusoidal Wave Forms

PREREQUISITE(S)

ELCR 1010

GENERAL EDUCATION CORE COMPETENCIES

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Students are expected to complete all tests and comprehensive problems by the due dates. A ten point penalty will be assessed for each day a comprehensive problem is late. There are no makeup tests. Tests are made available for several days; therefore, there are no makeup tests. Students who miss a test will be assigned a grade of zero. All students must pledge that they have read and understand the STC Online Orientation within the first five days of class. Online students are responsible for checking e-mails and Blackboard announcements DAILY.

COVID-19 MASK REQUIREMENT

Masks or face coverings must be worn at all times while on the campus of Southeastern Technical College. This measure is being implemented to reduce COVID-19 related health risks for everyone engaged in the educational process. Masks or face coverings must be worn over the nose and mouth, in accordance with the Centers for Disease Control and Prevention (CDC). A student's refusal to wear a mask or face covering will be considered a classroom disruption and the student may be asked to leave campus and/or receive further discipline.

COVID-19 SIGNS AND SYMPTOMS

We encourage individuals to monitor for the signs and symptoms of COVID-19 prior to coming on campus.

If you have experienced the symptoms listed below or have a body temperature 100.4°F or higher, we encourage you to self-quarantine at home and contact a primary care physician's office, local urgent care facility, or health department for further direction. Please notify your instructor(s) by email and do not come on campus for any reason.

COVID-19 Key Symptoms
Fever or felt feverish
Cough: new or worsening, not attributed to another health condition
Shortness of breath, not attributed to another health condition
New loss of taste or smell
Chills; Repeated shaking with chills
Sore throat, not attributed to another health condition
Muscle pain, not attributed to another health condition or exercise
Headache, not attributed to another health condition
Diarrhea (unless due to known cause)
In the past 14 days, if you:
Have had close contact with or are caring for an individual diagnosed with COVID-19 at home (not in healthcare setting), please do not come on campus and contact your instructor (s).

COVID-19 SELF-REPORTING REQUIREMENT

Students, who test positive for COVID-19 or who have been exposed to a COVID-19 positive person, are required to self-report using the [COVID 19 Health Reporting Form https://bit.ly/2Xq4g0f](https://bit.ly/2Xq4g0f). Report all positive cases of COVID-19 to your instructor and [Stephannie Waters](mailto:swaters@southeasterntech.edu), Exposure Control Coordinator, swaters@southeasterntech.edu, 912-538-3195.

TRADITIONAL ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an "F" in a course.

STUDENTS WITH DISABILITIES

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: Macy Gay mgay@southeasterntech.edu, 478-289-2274, Building 1, Room 1210

Vidalia Campus: Helen Thomas hthomas@southeasterntech.edu, 912-538-3126, Building A, Room 165

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please make arrangements with the appropriate campus coordinator.

Swainsboro Campus: [Macy Gay mgay@southeasterntech.edu](mailto:Macy_Gay_mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1210

Vidalia Campus: [Helen Thomas hthomas@southeasterntech.edu](mailto:Helen_Thomas_hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery **MAY NOT** be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned for the course(s) when the student completes the withdrawal form.

Important – Student-initiated withdrawals are not allowed after the 65% point. After the 65% point of the term in which student is enrolled, the student has earned the right to a letter grade and will receive a grade for the course. Please note: Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. A grade of 'W' will count in attempted hour calculations for the purpose of Financial Aid.

MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)

Students are required to take all tests and complete all assignments scheduled during the semester. Failure to take Tests/Exam(s) and complete assignments will result in a grade of zero. There will be no makeup of assignments or EXAMS. If Internet or browser failure occurs, contact instructor immediately. A decision will be made at that time if the exam will be reset. Instructor reserves the right to deduct points from the exam scores for exceeding the scheduled time limit on the exam and/or requiring student to come to campus to take the final exam. Note: If student notifies instructor about exam problems because of technical issues after the due date or on the last day of the semester, the student will **NOT** be allowed to make-up the exam. No exceptions! Assignments must be turned in on the assigned date and will not be accepted late, a grade of zero will be given. ALL Assignments are due according to the lesson plan.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. First Offense

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

2. Second Offense

Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

3. Third Offense

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia (TCSG) and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical college-administered programs, federally financed programs, educational programs and activities involving admissions, scholarships and loans, student life, and athletics. It also applies to the recruitment and employment of personnel and contracting for goods and services.

All work and campus environments shall be free from unlawful forms of discrimination, harassment and retaliation as outlined under Title IX of the Educational Amendments of 1972, Title VI and Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act of 1967, as amended, Executive Order 11246, as amended, the Vietnam Era Veterans Readjustment Act of 1974, as amended, Section 504 of the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, the Equal Pay Act, Lilly Ledbetter Fair Pay Act of 2009, the Georgia Fair Employment Act of 1978, as amended, the Immigration Reform and Control Act of 1986, the Genetic Information Nondiscrimination Act of 2008, the Workforce Investment Act of 1998 and other related mandates under TCSG Policy, federal or state statutes.

The Technical College System and Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 st Street, Vidalia Office 165 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138-B Phone: 912-538-3230 Email: Lanie Jonas ljonas@southeasterntech.edu

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College’s website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [Southeastern Technical College \(STC\) Website \(www.southeasterntech.edu\)](http://www.southeasterntech.edu).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

GRADING POLICY

Assessment/Assignment	Percentage
Exams	30%
Homework	10%
Laboratories	20%
Study Guides	5%
Final Exam*	35%

GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

***ELECTRONICS COMPETENCY EXAMS:**

The ELCR-1020 Final Exam is the **Electronics Systems Associate (ESA) Level 2 – Alternating Current Circuits Exam**. The cost for taking this exam is **\$35** payable to the STC Business Office before the last week of the semester. Please plan for this cost to complete the Direct Current series of classes successfully. A grade of 75% or higher on this exam will result in the student being awarded their ESA Level 2 certificate from the International Society of Certified Electronics Technicians (ISCET).

No minimum grade is required for this exam; however, this exam will carry a **35% grading weight**. Poor performance on this exam could result in a final class grade of <70 out of 100 which will require the student to retake ELCR-1020. Students who wish to retake any ESA Exam in order to improve their grades to receive their Associate CET Certificate can do so at a cost of \$15 per exam within two years of the original purchase of their test voucher for that exam.

ELCR-1020 Alternating Current Circuits Spring Semester 2021 Lesson Plan

WEEK 1 – (JAN IS JANUARY)

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Jan 11		Class Introduction – Syllabi, Outline, Work Ethics, Rules, and Regulations Coverage For any assigned reading, complete the Section Checkups at the end of each Section. It is a great way to review what you have read.	Read Sections 7.1 & 7.2 [On Blackboard] Read / Review Getting Started POST to appropriate Message Boards	1, a,b,c
Jan 12	7.1, 7.2	Section 7.1 – The Magnetic Field Section 7.2 – Electromagnetism	Read Sections 7.3 & 7.4	1, b,c
Jan 13	7.3, 7.4	Section 7.3 – Electromagnetic Devices Section 7.4 – Magnetic Hysteresis	Read Sections 7.5, 7.6 & 7.7	1, b,c
Jan 14	7.5, 7.6, 7.7	Section 7.5 – Electromagnetic Induction Section 7.6 – Direct Current (DC) Generators Section 7.7 – DC Motors	Do Chapter 7 Homework Watch All Chapter 7 Videos	1, b,c

WEEK 2

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Jan 18	None	HOLIDAY – MLK Day	HOLIDAY – MLK Day	None
Jan 19	7	LabVolt – Magnetism	Do Chapter 7 Study Guides Study for Chapter 7 Test	1, a,b,c
Jan 20	7	Chapter 7 Test	Take Chapter 7 Test	1, b,c
Jan 21	7	ISCET Material Review – Chapter 7	Read Sections 8.1, 8.2, 8.3 & 8.4	1, b,c
Jan 25	8.1, 8.2, 8.3, 8.4	Section 8.1 – The Sinusoidal Waveform Section 8.2 – Voltage & Current Values Section 8.3 – Angular Measurements Section 8.4 – Sine Wave Formula	Read Sections 8.5, 8.6, 8.7 & 8.8	2,3, b,c

WEEK 3 (FEB IS FEBRUARY)

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Jan 26	8.5, 8.6, 8.7, 8.8	Section 8.5 – Analysis of AC Circuits Section 8.6 – Alternators (AC Generators) Section 8.7 – AC Motors Section 8.8 – Non-sinusoidal Waveforms	Read Section 8.9	2,3,8, b,c
Jan 27	8.9	Section 8.9 – The Oscilloscope LabVolt – AC Waveform Generator	Do Chapter 8 Homework	1,2,3,8, a,b,c
Jan 28	8	LabVolt – AC Measurements Chapter 8 Review	Do Chapter 8 Study Guides Study for Chapter 8 Test	1,2,3,8, a,b,c
Feb 1	8	Chapter 8 Test	Take Chapter 8 Test	2,3,8, b,c

WEEK 4

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Feb 2	8	ISCET Material Review – Chapter 8	Read Sections 9.1, 9.2, 9.3 & 9.4	1,2,3,8, b,c
Feb 3	9.1, 9.2, 9.3, 9.4	Section 9.1 – The Basic Capacitor Section 9.2 – Types of Capacitors Section 9.3 – Series Capacitors Section 9.4 – Parallel Capacitors	Read Sections 9.5 & 9.6	2,3,4, b,c
Feb 4	9.5, 9.6	Section 9.5 – Capacitors in DC Circuits Section 9.6 – Capacitors in AC Circuits	Read Section 9.7 Watch Chapter 9 Videos Do Chapter 9 Homework	2,3,4, b,c
Feb 8	9.7	Section 9.7 – Capacitor Applications	Do Chapter 9 Study Guides	2,3,4, b,c

WEEK 5

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Feb 9	9	LabVolt – Capacitance	Study for Chapter 9 Test	2,3,4, a,b,c
Feb 10	9	Chapter 9 Test	Take Chapter 9 Test	2,3,4, b,c
Feb 11	9	ISCET Material Review – Chapter 9	Read Sections 11.1, 11.2 & 11.3	2,3,4, b,c
Feb 15	11.1, 11.2, 11.3	Section 11.1 – The Basic Inductor Section 11.2 – Types of Inductors Section 11.3 – Series & Parallel Inductors	Read Sections 11.4 & 11.5	2,3,4, b,c

WEEK 6

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Feb 16	11.4, 11.5	Section 11.4 – Inductors in DC Circuits Section 11.5 – Inductors in AC Circuits	Read Section 11.6	2,3,4, b,c
Feb 17	11.6	Section 11.6 – Inductor Applications LabVolt – Inductance	Watch Chapter 11 Videos Do Chapter 11 Homework	2,3,4, a,b,c
Feb 18	11	Chapter 11 Review	Do Chapter 11 Study Guides	2,3,4, b,c
Feb 22	11	Chapter 11 Test	Take Chapter 11 Test	2,3,4, b,c

WEEK 7 (MAR IS MARCH)

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Feb 23	11	ISCET Material Review – Chapter 11	Read Sections 14.1, 14.2, 14.3, 14.4 & 14.5	2,3,4, b,c
Feb 24	14.1, 14.2, 14.3, 14.4, 14.5	Section 14.1 – Mutual Inductance Section 14.2 – The Basic Transformer Section 14.3 – Step-Up & Step-Down Section 14.4 – Loading the Secondary Section 14.5 – Reflected Load	Read Sections 14.6, 14.7, 14.8 & 14.9	2,3,4, b,c
Feb 25	14.6, 14.7, 14.8, 14.9	Section 14.6 – Impedance Matching Section 14.7 – Transformer Ratings Section 14.8 – Tapped & Mult. Winding Section 14.9 – Troubleshooting	Watch Chapter 14 Videos Do Chapter 14 Homework	2,3,4, b,c
Mar 1	14	LabVolt – Transformers	Do Chapter 14 Study Guides	2,3,4, a,b,c

WEEK 8

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Mar 2	14	Chapter 14 Review	Study for Chapter 14 Test	2,3,4, b,c
Mar 3	14	Chapter 14 Test MIDTERM for Full Term Classes	Take Chapter 14 Test	2,3,4, b,c
Mar 4	None	STAFF DEVELOPMENT DAY (No Electronics Classes)	STAFF DEVELOPMENT DAY (No Electronics Classes)	None
Mar 8	14	ISCET Material Review – Chapter 14 MIDTERM	Read Sections 10.1 & 10.2 MIDTERM	2,3,4, b,c
Mar 9	10.1, 10.2	Section 10.1 – Sinusoidal Response of Resistor Capacitor (RC) Circuits Section 10.2 – Impedance & Phase Angle of Series RC Circuits	Read Sections 10.3 & 10.4	3,4,7, b,c

WEEK 9

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Mar 10	10.3, 10.4	Section 10.3 – Analysis of Series RC Circuits Section 10.4 – Impedance & Phase Angle of Parallel RC Circuits	Read Sections 10.5 & 10.6	3,4,7, b,c
Mar 11	10.5, 10.6	Section 10.5 – Analysis of Parallel RC Circuits Section 10.6 – Analysis of Series-Parallel RC Circuits	Read Sections 10.7, 10.8 & 10.9	3,4,7, b,c
Mar 15	10.7, 10.8, 10.9	Section 10.7 – Power in RC Circuits Section 10.8 – Basic Applications Section 10.9 – Troubleshooting	Watch All Chapter 10 Videos Do Chapter 10 Homework	3,4,7, b,c
Mar 16		LabVolt – Capacitive Reactance Chapter 10 Review	Do Chapter 10 Study Guides	3,4,7, a,b,c

WEEK 10

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Mar 17	10	Chapter 10 Test 65% Semester Point – Last Day to Withdraw	Take Chapter 10 Test Read Sections 12.1, 12.2 & 12.3	3,4,7, b,c
Mar 18	12.1, 12.2, 12.3	Section 12.1 – Sinusoidal Response of Resistor Inductor (RL) Circuits Section 12.2 – Impedance & Phase Angle of Series RL Circuits Section 12.3 – Analysis of Series RL Circuits	Read Sections 12.4, 12.5 & 12.6	3,4,7, b,c
Mar 22	12.4, 12.5, 12.6	Section 12.4 – Impedance & Phase Angle of Parallel RL Circuits Section 12.5 – Analysis of Parallel RL Circuits Section 12.6 – Analysis of Series-Parallel RL Circuits 65% Point – Last day to Withdraw	Read Sections 12.7, 12.8 & 12.9 Watch All Chapter 12 Videos Do Chapter 12 Homework	3,4,7, b,c
Mar 23	12.7, 12.8, 12.9	Section 12.7 – Power in RL Circuits Section 12.8 – Basic Applications Section 12.9 – Troubleshooting LabVolt – Inductive Reactance	Do Chapter 12 Study Guides 65% Drop Deadline for Classes	3,4,7, a,b,c

WEEK 11

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Mar 24	12	LabVolt – Power in AC Circuits Chapter 12 – Review	Study for Chapter 12 Test	3,4,7, a,b,c
Mar 25	12	Chapter 12 Test	Take Chapter 12 Test	3,4,7, b,c
Mar 29	10, 12	ISCET Material Review – Chapter 10 & 12	Read Sections 13.1, 13.2, 13.3, 13.4	3,4,7, b,c
Mar 30	13.1, 13.2, 13.3, 13.4	Section 13.1 – Impedance & Phase Angle of Series RLC Circuits Section 13.2 – Analysis of Series RLC Circuits Section 13.3 – Series Resonance Section 13.4 – Series Resonant Filters		3,5,6,7, b,c

WEEK 12 (APR IS APRIL)

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Mar 31	13	LabVolt – RLC Circuits (Series) LabVolt – Series Resonance	Read Sections 13.5, 13.6, 13.7, 13.8	3,5,6,7, a,b,c
Apr 1	13.5, 13.6, 13.7, 13.8	Section 13.5 – Parallel RLC Circuits Section 13.6 – Parallel Resonance Section 13.7 – Parallel Resonant Filters Section 13.8 – Applications	Watch All Chapter 13 Videos	3,5,6,7, b,c
Apr 5-6		SPRING BREAK	SPRING BREAK	
Apr 7	13	LabVolt – RLC Circuits (Parallel) LabVolt – Parallel Resonance	Watch All Chapter 13 Videos Do Chapter 13 Homework	3,5,6,7, a,b,c
Apr 8	13	Chapter 13 – Review	Do Chapter 13 Study Guides Study for Chapter 13 Test	3,5,6,7, b,c

WEEK 13

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Apr 12	13	Chapter 13 Test	Take Chapter 13 Test Read Sections 15.1, 15.2, 15.3, 15.4, 15.5	3,5,6,7, b,c
Apr 13	15.1, 15.2, 15.3, 15.4, 15.5	Section 15.1 – The RC Integrator Section 15.2 – Response of RC Integrators to a Single Pulse Section 15.3 – Response of RC Integrators to Repetitive Pulses Section 15.4 – Response of RC Differentiators to a Single Pulse Section 15.5 – Response of RC Differentiators to Repetitive Pulses	Read Sections 15.6, 15.7, 15.8 & 15.9	7,8,b,c
Apr 14			Watch Chapter 15 Videos Do Chapter 15 Homework	7,8,b,c
Apr 15	15.6, 15.7, 15.8, 15.9	Section 15.6 – Response of RL Integrators to Pulse Inputs Section 15.7 – Response of RL Differentiators to Pulse Inputs Section 15.8 – Applications Section 15.9 – Troubleshooting	Do Chapter 15 Study Guides	7,8,a,b,c

WEEK 14

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Apr 19	15	LabVolt – To Be Announced	Do Chapter 15 Study Guides	7,8, a,b,c
Apr 20	15	Chapter 15 – Review	Study for Chapter 15 Test	7,8, b,c
Apr 21	15	Chapter 15 Test	Take Chapter 15 Test	7,8, b,c
Apr 22	7 – 15	ISCET ESA Exam Review	Study for Final Exam	1 – 8, b,c

WEEK 15

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Apr 26	7 – 15	ISCET ESA Exam Review	Study for Final Exam	1 – 8, b,c
Apr 27	7 – 15	ISCET ESA Exam Review	Study for Final Exam	1 – 8, b,c
Apr 28	7 – 15	ISCET ESA Exam Review	Study for Final Exam	1 – 8, b,c

FINALS EXAM DAYS / TIMES

Date	Chapter /Lesson	Content	Assignments & Tests Due Dates	Competency Area
Apr 29	7 – 15	AC Circuits Final Exam [Proctored] ISCET ESA-2 Exam	9:00 AM Test Time	1-8, b,c
May 3	7 – 15	AC Circuits Final Exam [Proctored] ISCET ESA-2 Exam	1:00 PM Test Time	1-8, b,c

COMPETENCY AREAS:

1. AC Wave Generation
2. Frequency and Phase Relationships
3. Impedance, Admittance, and Conductance, Power Factors
4. Reactive Components
5. Simple RLC Circuits
6. AC Circuit Resonance
7. Passive Filters
8. Non-sinusoidal Wave Forms

GENERAL CORE EDUCATIONAL COMPETENCIES:

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.

DISCLAIMER STATEMENTS:

- (1) Instructor reserves the right to change the syllabus and/or lesson plan as necessary.
- (2) The official copy of the syllabus is located inside the student's online course shell or will be given to them during face to face class time the first day of the semester. The syllabus displayed in advance of the semester in a location other than the course you are enrolled in is for planning purposes only.