



**ELCR-1060 Linear Integrated Circuits**  
**COURSE SYLLABUS**  
**Fall Semester 2020 (202112)**

**COURSE INFORMATION**

Credit Hours/Minutes: 3 Hours / 3000 Minutes  
Campus / Class Location: Vidalia Campus / Building B, Room 827  
Class Meets: Monday and Wednesday (MW), 3:00 PM to 4:50 PM  
Course Reference Number (CRN): 20129

**INSTRUCTOR CONTACT INFORMATION**

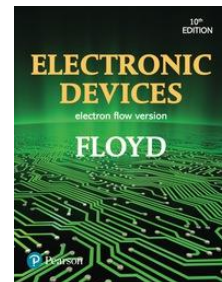
Instructor Name: William (Chip) Greene  
Office Location: Vidalia Campus / Building B, Room 822  
Office Hours: By Appointment Only  
Email Address: [wgreene@southeasterntech.edu](mailto:wgreene@southeasterntech.edu)  
Phone: (912) 538-3102  
Fax Number: (912) 538-3106  
Preferred Method of Contact: Text or Email 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](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

**REQUIRED TEXT**

*Electronic Devices, Electron Flow Version*  
*10th edition*  
by Thomas L. Floyd,  
published by Prentice Hall,  
ISBN# 0-13-442010-1



**REQUIRED SUPPLIES & SOFTWARE**

Engineering / Scientific Calculator

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 provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include: operational amplifiers, timers, and three-terminal voltage regulators.

## **PREREQUISITE(S)**

ELCR 1020

## **MAJOR COURSE COMPETENCIES / COURSE OUTLINE**

1. Operational Amplifiers
2. Timers
3. Three-Terminal Voltage Regulators

## **GENERAL EDUCATION CORE COMPETENCIES**

STC 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 (TRADITIONAL)**

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. Students are responsible for policies and procedures included in the STC E-Catalog. All online 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.

<b>COVID-19 Key Symptoms</b>
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

<b>COVID-19 Key Symptoms</b>
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)
<b>In the past 14 days, if you:</b>
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](#). Report all positive cases of COVID-19 to your instructor and [Stephannie Waters](#), Exposure Control Coordinator, [swaters@southeasterntech.edu](mailto: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 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](mailto:mgay@southeasterntech.edu)), 478-289-2274, Building 1, Room 1210

**Vidalia Campus:** [Helen Thomas](#), ([hthomas@southeasterntech.edu](mailto: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:mgay@southeasterntech.edu), 478-289-2274, Building 1, Room 1210

**Vidalia Campus:** [Helen Thomas, \(hthomas@southeasterntech.edu\)](mailto: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" (Withdrawn) 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 the 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" (Failing 0-59) 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 STC Academic Dishonesty Policy states 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 STC Catalog and Student 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" 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:

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

### 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 STC’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).

### 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

**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.

**\* ELECTRONICS COMPETENCY EXAMS:**

The ELCR-1060 Final Exam is the ESA Part 3 – Solid State Devices and Linear Integrated 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 3 certificate from the 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-1060.

Upon successful completion of all four parts of the ESA exams (i.e.  $\geq 75\%$  on ESA I through IV exams), the student is awarded their Associate CET Certificate from the ISCET.

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-1060 Linear Integrated Circuits

### Fall Semester 2020 (202112) Lesson Plan

#### WEEK 1 (AUG IS AUGUST)

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Aug 17	12.1, 12.2	Class Introduction – Syllabi, Outline, Rules, and Regulations Coverage <b>(Sect is Sect)</b> Sect 12.1 – Introduction to Operational Amplifiers (Op-Amp) Sect 12.2 – Op-Amp Input Modes and Parameters	<b>[On Blackboard]</b> Read / Review <b>START HERE</b> info POST to appropriate <b>Message Boards</b> Read Sect 12.1 & 12.2	1, a,b,c
Aug 18	12		Read Sect 12.3 & 12.4	1, b,c
Aug 19	12.3, 12.4	Sect 12.3 – Negative Feedback (FB) Sect 12.4 – Op-Amps with Negative FB		1, b,c
Aug 20	12		Read Sect 12.5 through 12.9 Begin Chapter 12 Homework Begin Chapter 12 Study Guides	1, b,c

#### WEEK 2

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Aug 24	12.5, 12.6, 12.7, 12.8	Sect 12.5 – Effects on Op-Amp Impedances Sect 12.6 – Bias Current and Offset Voltage Sect 12.7 – Open-Loop Responses Sect 12.8 – Closed-Loop Responses		1, b,c
Aug 25	12	BLACKBOARD	<b>Complete Chapter 12 Homework</b> <b>Complete Chapter 12 Study Guides</b>	1, a,b,c
Aug 26	12.9	Sect 12.9 – Troubleshooting	<b>LabVolt – Introduction to Op-Amps</b>	1, a,b,c
Aug 27	12	BLACKBOARD	<b>Chapter 12 Exam</b> Read Sect 13.1 and 13.2	1, b,c



**WEEK 3 (SEPT IS SEPTEMBER)**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Aug 31	13.1, 13.2	Sect 13.1 – Comparators Sect 13.2 – Summing Amplifiers		1, b,c
Sept 1	13		Read Sect 13.3	1, b,c
Sept 2	13.3	Sect 13.3 – Integrators and Differentiators	<b>LabVolt – The Inverting Summer</b>	1, a,b,c
Sept 3	13	BLACKBOARD	Begin Chapter 13 Homework Begin Chapter 13 Study Guides Read Sect 13.4	1, b,c
Sept 7	No Class	HOLIDAY – LABOR DAY	HOLIDAY – LABOR DAY	No Class

**WEEK 4**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Sept 8	13	BLACKBOARD	<b>Complete Chapter 13 Homework</b> <b>Complete Chapter 13 Study Guides</b>	1, a,b,c
Sept 9	13.4	Sect 13.4 – Troubleshooting	LabVolt – Integrators and Differentiators	1, a,b,c
Sept 10	13, 15	BLACKBOARD	<b>Chapter 13 Exam</b> Read Sect 15.1, 15.2 and 15.3	1, b,c
Sept 14	15.1, 15.2, 15.3	Sect 15.1 – Basic Filter Responses Sect 15.2 – Filter Response Characteristics Sect 15.3 – Active Low-Pass Filters		1, b,c

**WEEK 5**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Sept 15	15		Read Sect 15.4, 15.5, 15.6 and 15.7	1, b,c
Sept 16	15.4, 15.5, 15.6, 15.7	Sect 15.4 – Active High-Pass Filters Sect 15.5 – Active Band-Pass Filters Sect 15.6 – Active Band-Stop Filters Sect 15.7 – Filter Response Measurements	Begin Chapter 15 Homework Begin Chapter 15 Study Guides	1, b,c
Sept 17	15		Continue Chapter 15 Homework Continue Chapter 15 Study Guides	1, b,c
Sept 21	15		<b>LabVolt – Low Pass Filter (part 1)</b> <b>LabVolt – High Pass Filter (part 1)</b>	1, a,b,c

**WEEK 6**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Sept 22	15	BLACKBOARD	<b>Complete Chapter 15 Homework</b> <b>Complete Chapter 15 Study Guides</b>	1, b,c
Sept 23	15	BLACKBOARD	<b>LabVolt – Band Pass Filter (part 1)</b> <b>Chapter 15 Exam</b>	1, a,b,c
Sept 24	15		Read Sect 16.1 and 16.2	1,2, b,c
Sept 28	16.1, 16.2	Sect 16.1 – The Oscillator Sect 16.2 – Feedback Oscillator Principles		1,2, b,c

**WEEK 7 (OCT IS OCTOBER)**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Sept 29	16	(RC is Resistor Capacitor) (LC is Inductor Capacitor)	Read Sect 16.3 and 16.4	1,2, b,c
Sept 30	16.3, 16.4	Sect 16.3 – Oscillators with RC Feedback Sect 16.4 – Oscillators with LC Feedback		1,2, b,c
Oct 1		<b>STAFF DEVELOPMENT DAY</b> <b>No Classes</b>	<b>STAFF DEVELOPMENT DAY</b> Read Sect 16.5 and 16.6	
Oct 5	16.5, 16.6	Sect 16.5 – Relaxation Oscillators Sect 16.6 – The 555 Timer as an Oscillator		1,2, b,c
Oct 6	16	BLACKBOARD	Begin Chapter 16 Homework Begin Chapter 16 Study Guides	1,2, a,b,c

**WEEK 8**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Oct 7	16	<b>Complete Chapter 16 Homework</b> <b>Complete Chapter 16 Study Guides</b>		1,2, a,b,c
Oct 8	16	BLACKBOARD	<b>Chapter 16 Exam</b> Read Sect 17.1 and 17.2	1,2, b,c
Oct 12	17.1, 17.2	Sect 17.1 – Voltage Regulation Sect 17.2 – Basic Series Regulators		1,3, b,c
Oct 13	17.3, 17.4	<b>MID-TERM (for Full Term)</b>	Read Sect 17.3 and 17.4	1,3, b,c

**WEEK 9**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Oct 14</b>	<b>17.3, 17.4</b>	Sect 17.3 – Basic Shunt Regulators Sect 17.4 – Basic Switching Regulators <b>65% Point for Full Term Semester</b>		1,3, b,c
<b>Oct 15</b>	<b>17</b>	BLACKBOARD	Begin Chapter 17 Homework Begin Chapter 17 Study Guides	1,3, b,c
<b>Oct 19</b>	<b>17</b>		<b>LabVolt – Series Voltage Regulator</b>	1,3, a,b,c
<b>Oct 20</b>	<b>17</b>	BLACKBOARD	Continue Chapter 17 Homework Continue Chapter 17 Study Guides	1,3, b,c

**WEEK 10**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Oct 21</b>	<b>17</b>	BLACKBOARD	<b>LabVolt – Shunt Voltage Regulator</b>	1,3, b,c
<b>Oct 22</b>	<b>17</b>	(IC is Integrated Circuit)	Read Sect 17.5 and 17.6	
<b>Oct 26</b>	<b>17.5, 17.6</b>	Sect 17.5 – IC Voltage Regulators (VR) Sect 17.6 – IC-VR Configurations		3, b,c
<b>Oct 27</b>	<b>17</b>		Review Chapter 17	1,3, b,c

**WEEK 11 (NOV IS NOVEMBER)**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Oct 28</b>	<b>17</b>		<b>LabVolt – Three-Pin IC Regulator</b>	3, a,b,c
<b>Oct 29</b>	<b>17</b>	BLACKBOARD	<b>Complete Chapter 17 Homework</b> <b>Complete Chapter 17 Study Guides</b>	1,3, a,b,c
<b>Nov 2</b>	<b>17</b>	BLACKBOARD	<b>Chapter 17 Exam</b>	1,3, b,c
<b>Nov 3</b>	<b>14</b>		Read Sect 14.1 and 14.2	1, b,c

**WEEK 12**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Nov 4</b>	<b>14.1, 14.2</b>	Sect 14.1 – Instrumentation Amplifiers Sect 14.2 – Isolation Amplifiers		1, b,c
<b>Nov 5</b>	<b>14</b>	BLACKBOARD	Read Sect 14.3 and 14.4 Begin Chapter 14 Homework Begin Chapter 14 Study Guides	1, b,c
<b>Nov 9</b>	<b>14.3, 14.4</b>	Sect 14.3 – Operational Transconductance Amplifiers (OTAs) Sect 14.4 – Log and Antilog Amplifiers		1, b,c
<b>Nov 10</b>	<b>14</b>		Read Sect 14.5	1, b,c

**WEEK 13**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Nov 11</b>	<b>14.5</b>	Sect 14.5 – Converters and Others	<b>LabVolt – TBA</b>	1, a,b,c
<b>Nov 12</b>	<b>14</b>	BLACKBOARD	<b>Complete Chapter 14 Homework Complete Chapter 14 Study Guides</b>	1, a,b,c
<b>Nov 16</b>	<b>14</b>	BLACKBOARD	<b>Chapter 14 Exam</b>	1, b,c
<b>Nov 17</b>	<b>ESA-3</b>		ISCET MATERIAL REVIEW	1-3, b,c

**WEEK 14**

<b>Date</b>	<b>Chapter / Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>
<b>Nov 18</b>	<b>ESA-3</b>		ISCET MATERIAL REVIEW	1-3, b,c
<b>Nov 19</b>	<b>ESA-3</b>		ISCET MATERIAL REVIEW	1-3, b,c
<b>Nov 23</b>	<b>ESA-3</b>		ISCET MATERIAL REVIEW	1-3, b,c
<b>Nov 24</b>	<b>ESA-3</b>		ISCET MATERIAL REVIEW	1-3, b,c

**WEEK 15 (DEC IS DECEMBER)**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Nov 25	No Class	HOLIDAY - THANKSGIVING	HOLIDAY – THANKSGIVING	No Class
Nov 26	No Class	HOLIDAY - THANKSGIVING	HOLIDAY – THANKSGIVING	No Class
Nov 30	ESA-3		ISCET MATERIAL REVIEW	1-3, b,c
Dec 1	ESA-3		ISCET MATERIAL REVIEW	1-3, b,c
Dec 2	ESA-3		ISCET MATERIAL REVIEW	1-3, b,c
Dec 3	ESA-3		ISCET MATERIAL REVIEW	1-3, b,c

**FINAL EXAM WEEK**

Date	Chapter / Lesson	Content	Assignments & Tests Due Dates	Competency Area
Dec 7	12 – 17	FINAL EXAM (ESA III – Semiconductors)		1-3, a,b,c
Dec 8	12 – 17	FINAL EXAM (ESA III – Semiconductors)		1-3, a,b,c

**Competency Areas:**

1. Operational Amplifiers
2. Timers
3. Three-Terminal Voltage Regulators

**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.