



**TENTATIVE—SUBJECT TO CHANGE**  
**ELTR 1080 Commercial Wiring 1**  
**HYBRID COURSE SYLLABUS**  
**Summer Semester 2021 (202114)**

**COURSE INFORMATION**

Credit Hours/Minutes: 5/4500

Campus/Class Location: Vidalia/ Main Building Lab 429

Class Meets: Tuesday and Thursday 8:00AM-12:20PM/ 20% Hybrid / 80% F2F

Course Reference Number (CRN): 40154

Preferred Method of Contact: Email

**INSTRUCTOR CONTACT INFORMATION**

Instructor Name: Tony Criswell

Email Address: [Tony Criswell \(tcriswell@southeasterntech.edu\)](mailto:tcriswell@southeasterntech.edu)

Campus/Office Location: Swainsboro Building 6 Lab 6102

Office Hours: 2:00-4:00PM Monday and Wednesday

Phone: 478-289-2235

Fax Number: 912-538-3156

Tutoring Hours: By Appt.

**This course is taught in a hybrid format. Hybrid classes require students to complete a portion of the required contact hours traditionally by attending classes on campus while completing the remaining portion online at the student's convenience with respect to the instructor's requirements.**

**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**

Modern Commercial Wiring 8th edition- Bundle (Text + Common Cartridge, 1yr. Individual Access Key Code), Goodheart-Wilcox Publishers ISBN 978-1-64564-546-7

**REQUIRED SUPPLIES & SOFTWARE**

Hand tools and Safety Glasses.

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**

Introduces commercial wiring practices and procedures

## **MAJOR COURSE COMPETENCIES**

**PREREQUISITE(S)** Topics include: industrial safety procedures, the National Electrical Code, principles of grounding and bonding, commercial services, three-phase power systems, and electric motor fundamentals.

## **COURSE OUTLINE**

1. Industrial Safety Procedures
2. National Electric Code
3. Principles of Grounding and Bonding
4. Commercial Services
5. Three-Phase Power Systems
6. Electric Motor Fundamentals

## **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**

Electrical Systems technology students must earn a minimum grade of C in this course.

## **HYBRID ATTENDANCE**

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 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.

## 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)
<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.

## 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.)**

Extenuating circumstances are determined at the instructor's discretion. Unless otherwise scheduled with the instructor, it is expected that the test will be taken the next day, scheduled outside of regular class time. Failure to follow this procedure will result in a grade of zero.

## **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:

<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 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
Test	35%
Review Questions	5%
Lab Work	60%

### GRADING SCALE

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

## ELTR 1080 Commercial Wiring 1 Spring Semester 2021 Lesson Plan

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
January 12-18	Safety	<ul style="list-style-type: none"> <li>• Cite examples of hazardous situations.</li> <li>• Identify hazards associated with electrical work.</li> <li>• Explain basic safety rules.</li> <li>• Describe safety equipment and protective clothing.</li> <li>• Follow basic procedures designed to aid an injured worker</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 2 Safety in book</li> <li>• View Chapter 2 Safety PowerPoint</li> <li>• Complete Chapter 2 Safety Review Questions and submit</li> <li>• Complete Chapter 2 Safety Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 2 Safety</li> </ul>	1 A,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
January 19-25	Electrical Prints, Specifications, and Codes	<ul style="list-style-type: none"> <li>• Describe several types of electrical drawings.</li> <li>• Identify common electrical symbols.</li> <li>• Explain the purpose of specifications.</li> <li>• Explain the importance of building codes.</li> <li>• Define the purpose, intent, arrangement, and key terminology of the <i>National Electrical Code</i>.</li> <li>• Identify various lab facilities that perform rigorous testing on electrical devices, equipment, and associated components for safety and performance certification.</li> <li>• Name various agencies that set standards concerning electrical practices and procedures.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 4 Electrical Prints, Specifications, and Codes in book</li> <li>• View Chapter 4 Electrical Prints, Specifications, and Codes PowerPoint</li> <li>• Complete Chapter 4 Electrical Prints, Specifications, and Codes Review Questions and submit</li> <li>• Complete Chapter 4 Electrical Prints, Specifications, and Codes Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 4 Electrical Prints, Specifications, and Codes</li> <li>• Complete labs</li> </ul>	2 a,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
January 26- February 1	Overcurrent Protection	<ul style="list-style-type: none"> <li>• Recognize overloads and short circuits.</li> <li>• Identify the types, ratings, and characteristics of electrical protective devices. <ul style="list-style-type: none"> <li>• List types of fuses.</li> </ul> </li> <li>• Compare fuses and circuit breakers.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 8 Overcurrent Protection in book</li> <li>• View Chapter 8 Overcurrent Protection PowerPoint</li> <li>• Complete Chapter 8 Overcurrent Protection Review Questions and submit</li> <li>• Complete Chapter 8 Overcurrent Protection Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 8 Overcurrent Protection</li> <li>• Complete labs</li> </ul>	4,5 a,b,c
February 2-8	Service and Distribution	<ul style="list-style-type: none"> <li>• Describe the two basic types of service.</li> <li>• Explain service terminology.</li> <li>• Find service drop clearance in the <i>Code</i>.</li> <li>• Compare the arrangement and construction of service drops and service laterals.</li> <li>• Identify the required working clearances at the service equipment.</li> <li>• Explain the various supply voltages available in the United States and their common applications.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 9 Service Distribution in book</li> <li>• View Chapter 9 Service Distribution Protection PowerPoint</li> <li>• Complete Chapter 9 Service Distribution Review Questions and submit</li> <li>• Complete Chapter 9 Service Distribution Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 9 Service Distribution</li> <li>• Complete labs</li> </ul>	4,5 a,b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
February 9-15	Branch Circuits and Feeders	<ul style="list-style-type: none"> <li>• Identify the feeder and branch circuit portions of a distribution system.</li> <li>• Describe the various types of branch circuits.</li> <li>• Define the functions of a feeder and the functions of branch-circuit conductors.</li> <li>• Calculate lighting and receptacle loads using <i>Code</i> requirements.</li> <li>• Size branch circuits in accordance with the <i>Code</i>.</li> <li>• Determine branch circuit overcurrent protection required by the <i>Code</i>.</li> <li>• Use the <i>Code</i> to size feeder conductors</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 12 Branch Circuit and Feeders in book</li> <li>• View Chapter 12 Branch Circuit and Feeders PowerPoint</li> <li>• Complete Chapter 12 Branch Circuit and Feeders Review Questions and submit</li> <li>• Complete Chapter 12 Branch Circuit and Feeders Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 12 Branch Circuit and Feeders</li> <li>• Complete labs</li> </ul>	4,5 a,b,c
February 16-22	Transformers	<ul style="list-style-type: none"> <li>• Define the purpose and uses of transformers.</li> <li>• Identify the basic components and construction of a transformer.</li> <li>• Explain how a transformer works.</li> <li>• List the types of transformers.</li> <li>• Size overcurrent protective devices for a transformer's primary and secondary windings.</li> <li>• Perform transformer calculations and solve practical transformer problems.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 10 Transformers in book</li> <li>• View Chapter 10 Transformers PowerPoint</li> <li>• Complete Chapter 10 Transformers Review Questions and submit</li> <li>• Complete Chapter 10 Transformers Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 10 Transformers</li> <li>• Complete labs</li> </ul>	4,5 a,b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
February 23- March 1	Grounding	<ul style="list-style-type: none"> <li>• State important grounding concepts.</li> <li>• Explain the difference between system grounding and equipment grounding.</li> <li>• Compare the characteristics of grounded and ungrounded systems.</li> <li>• List the primary reasons for grounding equipment.</li> <li>• Select the appropriate size system and equipment grounding conductors using the <i>Code</i>.</li> <li>• Identify the requirements for a service grounding system.</li> <li>• Explain the purpose, operation, and installation of ground-fault circuit interrupters.</li> <li>• Describe various grounding electrode systems and their <i>Code</i> requirements.</li> <li>• Size grounding electrode conductors using the <i>Code</i>.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 11 Grounding in book</li> <li>• View Chapter 11 Grounding PowerPoint</li> <li>• Complete Chapter 11 Grounding Review Questions and submit</li> <li>• Complete Chapter 11 Grounding Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 11 Grounding</li> <li>• Complete labs</li> </ul>	3 a,c
March 2-7	Motors	<ul style="list-style-type: none"> <li>• Explain the basic components of motors.</li> <li>• List various classes of motors.</li> <li>• Calculate motor starting currents.</li> <li>• Use the <i>Code</i> to design motor branch circuits, including overcurrent protection.</li> <li>• Define and compute true power, apparent power, and power factor.</li> </ul>	<p><b>Hybrid</b></p> <ul style="list-style-type: none"> <li>• Read Chapter 13 Motors in book</li> <li>• View Chapter 13 Motors PowerPoint</li> <li>• Complete Chapter 13 Motors Review Questions and submit</li> <li>• Complete Chapter 13 Motors Test</li> </ul> <p><b>Class</b></p> <ul style="list-style-type: none"> <li>• Instructor will discuss Chapter 13 Motors</li> <li>• Complete labs</li> </ul>	6 a,b,c

**COMPETENCY AREAS: INDUSTRIAL SAFETY PROCEDURES**

1. Industrial Safety Procedures
2. National Electric Code
3. Principles of Grounding and Bonding
4. Commercial Services
5. Three-Phase Power Systems
6. Electric Motor Fundamentals

**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.