



ELTR 1180 Electrical Controls COURSE SYLLABUS Summer Semester 2017

Semester: Summer 2017
Course Title: Electrical Controls
Course Number: ELTR 1180

Credit Hours/ Minutes: 4 / 4500
Class Location: Bldg 6 Room 6102
Class Meets: 10:25AM-12:55PM MTWR
CRN: 60147

Instructor: Tony Criswell
Office Location: Bldg. 6 Room 6102
Office Hours: : 8-8:30AM Monday- Thursday and 1-3:30PM Monday and Tuesday
Email Address: tcriswell@southeasterntech.edu
Phone: 478-289-2235
Fax Number:

REQUIRED TEXT:

- **Motor Controls** by NCCER, Pearson Publishers ISBN 978-1-269-83003-4

REQUIRED SUPPLIES & SOFTWARE: **Tools and Safety Glasses; 2GB or higher USB Jump Drive**

COURSE DESCRIPTION: Introduces line and low voltage switching circuits, manual and automatic controls and devices, and circuits. Emphasis will be placed on switching circuits, manual and automatic controls and devices, line and low voltage switching circuits, and operation, application and ladder diagrams

MAJOR COURSE COMPETENCIES: ladder and wire diagrams, switching circuits, manual controls and devices, automatic controls and devices, application and operation of controllers and controls, and variable speed controls

COREQUISITE(S):

COURSE OUTLINE:

1. Ladder and Wire Diagrams
2. Switching Circuits
3. Manual Controls and Devices
4. Automatic Controls and Devices
5. Application and Operation of Controllers and Controls
6. Variable Speed Controls

GENERAL EDUCATION CORE COMPETENCIES: STC has identified the following general education core competencies that graduates will attain:

- 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.

All students pursuing a degree, a diploma, or a Technical Certificate of Credit with a General Education component will be required to pass the General Education Competency Exams prior to graduation.

STUDENT REQUIREMENTS: Class attendance is a very important aspect of a student's success in this course. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is expected. Students are expected to complete all work required by the instructor. Unannounced quizzes/assignments may be given. Students that miss an unannounced quiz or assignment will receive a grade of 0. Students are expected to complete all work shown on the attached assignment sheet. Students are also expected to complete all tests and comprehensive problems on the dates specified on the attached calendar. Students are responsible for policies and procedures included in the *STC Catalog*. **Electrical Construction Technology program students must earn a minimum grade of C in this course.**

EXIT EXAM: This course includes an exit exam to pass the class. You must score a 70 or higher on the exit exam to pass the class.

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 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.

WITHDRAWAL PROCEDURE: Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (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 when the student completes the withdrawal form from the course.

Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

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. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

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

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.

SPECIAL NEEDS: Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, 912-538-3126, hthomas@southeasterntech.edu, to coordinate reasonable accommodations.

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 advise me and make appropriate arrangements with Helen Thomas, 912-538-3126, hthomas@southeasterntech.edu.

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 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:

--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.

--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.

--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 second 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 and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, 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 school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

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

ADA/Section 504 - Equity- Title IX (Students) - OCR Compliance Officer	Title VI - Title IX (Employees) - EEOC Officer
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 st Street, Vidalia Office 108 Phone: 912-538-3126 hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138B Phone: 912-538-3147 bwilcox@southeasterntech.edu

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 STC website at www.southeasterntech.edu.

GRADING POLICY

Module Test	20%
Review Questions	10%
Exit Exam	30%
Performance Evaluations/Labs	40%
Total	100%

GRADING SCALE

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

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.

**ELTR 1180 ELECTRICAL CONTROLS LESSON PLAN
SUMMER SEMESTER 2017**

DATES	CHAPTER	OBJECTIVES	ASSIGNMENTS	Comp Area Gen. Ed Comp
May 17	Summer Semester Begins			
May 17 Begin June 20 End	Control Systems- Module 26211	<ul style="list-style-type: none"> • Discuss the various symbols used in motor controls • Discuss the various types of diagrams used in motor control • Learn to read a control diagram. 	<ul style="list-style-type: none"> • Read Module 26211 of the of Motor Control book • Look at the PowerPoint's in Blackboard under assignments for Module 26211 • Answer the module review questions in Module 26211 and turn in to instructor • Complete Lab 1-1 Full Voltage Manual Starters • Complete Lab 1-2 Start-Stop Station • Complete Lab 1-3 Two Start-Stop Stations • Complete Lab 1-4 One start-Stop Control of two motors • Complete Lab 1-5 Two Starters operated by 2 start-stop stations • Complete Lab 2-1 Start-Stop with Pilot light • Complete Lab 2-2 Forward-Reverse-Stop- Stop Must be Pushed before Changing Directions • Complete Lab 2-3 Starting and Stopping in Forward and Reverse Light Indicate Direction in Which Motor is Operating • Complete Module 26211-11 Performance Profile Sheet • Take the Module 26211-11Exam 	1,2,3,4,5 A,B,C
June 21 Begin July 26 End	Motor Controls- Module 26311	<ul style="list-style-type: none"> • Discuss control circuits • Discuss logic functions 	<ul style="list-style-type: none"> • Read Module 26311 of the of Motor Control book • Look at the PowerPoint's in Blackboard under assignments for Module 26311 • Answer the module review questions in Module 26311 and turn in to instructor • Complete Lab 3-1 Limit Switch Controls Magnetic Starter • Complete Lab 3-2 Limit Switch with Control Relay LV NV Protection • Complete Lab 3-3 Start Stop with Limit Switches Controlling Reversing • Complete Lab 3-4 FWD-REV Limit Switch Safety Stop • Complete Lab 3-5 Time Delay ON • Complete Lab 3-6 Motors Arranged for Sequence Control • Complete Lab 4-1 Float Switch for Sump and Tank Operation • Complete Lab 4-2 Float Switch with Timing Relay • Complete Lab 4-3 Float Switch with HOA • Complete Lab 4-4 Jogging with a Selector Switch • Complete Lab 4-5 Jog run Forward Reverse • Complete Lab 4-6 Jogging- Safety Provided by Relay • Complete Module 26311 Performance Profile Sheet • Take the Module 26311 Exam 	1,2,3,4,5,6 A,B,C
COURSE COMPETENCIES:			GENERAL EDUCATION CORE COMPETENCIES:	
<ol style="list-style-type: none"> 1. Ladder and Wire Diagrams 2. Switching Circuits 3. Manual Controls and Devices 4. Automatic Controls and Devices 5. Application and Operation of Controllers and Controls 6. Variable Speed Controls 			<ol style="list-style-type: none"> 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. 	