



## ELTR 1270 Industrial Wiring COURSE SYLLABUS Summer Semester 2017

Instructor reserves the right to change syllabus and lesson plans as necessary.

Semester: Summer 2017

Course Title: **Industrial Wiring**

Course Number: ELTR 1270

Credit Hours/ Minutes: 3/000

Class Location: Main 429

Class Meets: MT 4:00-8:50 PM

CRN: 60151

Instructor: Randy Robinson

Office Hours: MTWR 2:00-4:00PM

Office Location: Main 429

Email Address: rrobinosn@southeasterntech.edu

Phone: 912-538-3137

Fax Number: 912-538-3156

Tutoring Hours: By Appt.

### REQUIRED TEXT:

- **NEC 2014 Code Spiral Bound**, Published by NFPA, Distributed by Builders Book, ISBN: 9781455906734

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

**COURSE DESCRIPTION:** Provides instruction in industrial applications of the National Electric Code.

**MAJOR COURSE COMPETENCIES:** Rigid/IMC conduit installation, EMT conduit installation, busways installation, cable tray/wireway installation, and equipment installation (600 volts or less) .

**PREREQUISITE(S):** None

### COURSE OUTLINE:

1. Rigid/IMC Conduit Installation
2. EMT Conduit Installation
3. Busway Installation
4. Cable Tray/Wireway Installation
5. Equipment Installation (600 volts or less).

**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:** 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 Systems Technology program students must earn a minimum grade of C in this course.**

**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.

**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](mailto:hthomas@southeasterntech.edu), to coordinate reasonable accommodations.

**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 advise me and make appropriate arrangements with Helen Thomas, (912) 538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu).

**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.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for 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.**

**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 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 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:

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

**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](http://www.southeasterntech.edu).

**GRADING POLICY**

<b>Module Tests</b>	<b>40%</b>
Review Quizzes	10%
Perf. Eval./Lab	50%
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 1270 INDUSTRIAL WIRING LESSON PLAN				
SUMMER SEMESTER 2017				
ITEMS THAT ARE COLORED BLUE ARE DONE ON CAMPUS				
DATES	Module	Content (Classroom Activities)	ASSIGNMENTS	*Comp Area **Gen. Ed Comp
May 17	Summer Semester Begins			
Conduit Bending-Module 26204-14	Conduit Bending-Module 26204-14	<ul style="list-style-type: none"> <li>Describe the process of conduit bending using power tools</li> <li>Bend conduit</li> <li>Explain the requirements of the National Electric Code for bending conduit</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26204 in the Trainee Guide</li> <li>Answer the module review questions in Module 26204 -14</li> <li>Complete Module 26204 Performance Profile Sheet</li> <li>Take the Module 26204 Exam</li> </ul>	2 A,C
Conductors and Cables-Module 26109	Conductors and Cables-Module 26109	<ul style="list-style-type: none"> <li>From the cable markings, describe the insulation and jacket material, conductor size and type, number of conductors, temperature rating, voltage rating, and permitted uses</li> <li>Determine the allowable ampacity of a conductor for a given application</li> <li>Identify the NEC requirements for color coding of conductors</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26109 in the Trainee Guide</li> <li>Answer the module review questions in Module 26109</li> <li>Complete Module 26109 Performance Profile Sheet</li> <li>Take the Module 26109Exam</li> </ul>	1, 2 A,B,C
Conductor Terminations and Splices-Module 26208	Conductor Terminations and Splices-Module 26208	<ul style="list-style-type: none"> <li>Describe how to make a good conductor termination]</li> <li>Prepare cable ends for termination</li> <li>Understand the National Electric Code requirements for making cable terminations and splices</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26208 in the Trainee Guide</li> <li>Answer the module review questions in Module 26208</li> <li>Complete Module 26208 Performance Profile Sheet</li> <li>Take the Module 26208 Exam</li> </ul>	2,4 A,C
Hazardous Locations-Module 26304-14	Hazardous Locations-Module 26304-14	<ul style="list-style-type: none"> <li>Define the various classifications of hazardous locations</li> <li>Describe the wiring methods permitted for branch circuits and feeders in specific hazardous locations</li> <li>Select seals and drains for specific hazardous locations</li> <li>Select wiring methods for Class I, Class II, and Class III hazardous locations</li> <li>Follow National Electrical Code® (NEC®) requirements for installing explosion proof fittings in specific hazardous locations.</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26109 in the Trainee Guide</li> <li>Answer the module review questions in Module 26109</li> <li>Complete Module 26109 Performance Profile Sheet</li> <li>Take the Module 26109Exam</li> </ul>	2, 3 A,B,C
Cable Tray-Module 26207-14	Cable Tray-Module 26207-14	<ul style="list-style-type: none"> <li>Describe the components that make up a cable tray assembly</li> <li>Explain the methods used to hang and secure cable tray</li> <li>Describe how cable enters and exits cable tray</li> <li>Select the proper cable tray fitting for the situation</li> <li>Explain the National Electrical Code® (NEC®) requirements for cable tray installations</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26207 in the Trainee Guide</li> <li>Answer the module review questions in Module 26207</li> <li>Complete Module 26207 Performance Profile Sheet</li> <li>Take the Module 26207Exam</li> </ul>	2,4 A,C
July 18 Begin	Electric	<ul style="list-style-type: none"> <li>Recognize the different kinds of</li> </ul>	<ul style="list-style-type: none"> <li>Read Module 26203 in the Trainee Guide</li> </ul>	2, 3

<p><b>July 27 END</b> <b>All Items Due</b></p>	<p>Lighting- Module 26203</p>	<p>lamps and explain the advantages and disadvantages of each type</p> <ul style="list-style-type: none"> <li>• Properly select and install various lamps into lighting fixtures</li> <li>• Recognize and describe the installation requirements for various types of lighting fixtures</li> </ul>	<ul style="list-style-type: none"> <li>• Answer the module review questions in Module 26203</li> <li>• Complete Module 26203 Performance Profile Sheet</li> <li>• Take the Module 26203Exam</li> </ul>	<p><b>A,B,C</b></p>
<p><b>April 18 Begin</b></p> <p><b>May 2 END</b> <b>All Items Due</b></p>	<p>Voice, Data, and Video- Module 26310- 14</p>	<ul style="list-style-type: none"> <li>• Define the different categories for voice-data-video (VDV) cabling systems</li> <li>• Install raceways, boxes, and enclosures for VDV systems</li> <li>• Interpret and apply NEC® requirements for installing and grounding VDV systems</li> <li>• Explain the requirements for fire-stopping.</li> </ul>	<ul style="list-style-type: none"> <li>• Read Module 26310 in the Trainee Guide</li> <li>• Answer the module review questions in Module 26310</li> <li>• Take the Module 26310 Exam</li> </ul>	<p><b>2, 3 A,B,C</b></p>
<p><b>COURSE COMPETENCIES:</b></p> <ol style="list-style-type: none"> <li>1. Print Reading</li> <li>2. National Electric Code</li> <li>3. Wiring Materials and Methods</li> <li>4. Control of Luminaries and Receptacle Installation</li> </ol>			<p><b>GENERAL EDUCATION CORE COMPETENCIES:</b></p> <ol style="list-style-type: none"> <li>A. The ability to utilize standard written English.</li> <li>B. The ability to solve practical mathematical problems.</li> <li>C. The ability to read, analyze, and interpret information.</li> </ol>	