Electronic Troubleshooting (ELMT_2437_6A1)

CREDIT
4 Semester Credit Hours (3 hours lecture, 3 hours lab)

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
None

COURSE DESCRIPTION
In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and use of test equipment.

COURSE OBJECTIVES
Upon completion of this course, the student will be able to
- Explain the purpose and application of electronic troubleshooting.
- Identify and utilize test equipment for problem analysis.
- Find test point locations from schematics or prints
- Isolate faults and repair, perform routine maintenance.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Collin Tomberlin
Email:	ctomberlin@lit.edu
Office Phone:	(409)240-6793
Office Location:	Advanced Technology RM 105
Office Hours:	Monday, Tuesday, Friday 1-3:00 PM

REQUIRED TEXTBOOK AND MATERIALS
Tomal, Electronic Troubleshooting, 4th Edition, 2014
   a. ISBN number is 9780-071828-611

ATTENDANCE POLICY
I. Students are allowed to miss two days without penalty; each additional day will result in the student's grade being dropped by a letter grade.
   Example:
      2 days absent = If student has an A average no penalty

Approved: C.T. 1/14/26

3 days absent = A drops to a B
4 days absent = B drops to a C
5 days absent = C drops to a D (student must retake class)
6 days absent = D drops to a F (student must retake class)

II. Absences are counted for unexcused, excused and coming to class late.

III. 3 tardies = 1 absences
A. Tardy- arriving within 15 minutes after class begins or leaving before   the end of class.
B. More than 15 minutes late you will be counted absent.
C. If you sleep in class, you will be counted absent.

IV. **Excused absences.** Only given to allow students to make up missed work.
A. Will be given for documented Injury or Illness. The doctor's excuse required showing proof. Will count toward total days missed.
B. Will be given for documented Death in immediate family. Will count   toward total days missed.
C. Approved LIT school functions; E.g., SkillsUSA, SGA etc. Will not count   toward total days missed
D. It is the student's responsibility to obtain from the instructor any handouts or assignments for classes missed. Lectures will not be repeated.

DROP POLICY
If you wish to drop a course, you are responsible for initiating and completing the drop process.
If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

Date	TOPIC	REFERENCE
1-3 20 Jan 26 26 Jan 26 2 Feb 26	Course introduction, policies, Principles of Troubleshooting • Lecture/Lab • Chapter 1 • Quiz	• Syllabi • Chapter 1
4-5 9 Feb 26 16 Feb 26	Test Equipment • Lecture/ Lab • Chapter 2 • Test	• Chapter 1 • Chapter 2
6-7 23 Feb 26	Electric Motors and Generators	• Chapter 3

2 Mar 26	• Lecture/Lab • Chapter 3 • Review	
8-9 16 Mar 26 23 Mar 26	Troubleshooting Industrial Controls • Lecture/Lab • Chapter 4 • Review • Quiz	• Chapter 4
10-11 30 Mar 26 6 Apr 26	Troubleshooting Communications Systems • Lecture/Lab • Chapter 5/6 • Review • Test 2	• Chapter 3 • Chapter 4 • Chapter 5 • Chapter 6
12-13 13 Apr 26 20 Apr 26	Troubleshooting Digital Circuits • Lecture/Lab • Chapter 7 • Review • Quiz	• Chapter 7
14-15 27 Apr 26 4 May 26	Computer Networking and Network Devices • Lecture/Lab • Chapter 11 • Review	• Chapter 11
16 11 May 26	• Final Exam	• Chapter 7 • Chapter 11

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Activity	*Percentage*
Assignments:	30%
Test:	70%
Total:	*100%*

Late Penalties will be assessed on all work turned in late. 5 points per day. Average a grade on all tests and assignments of at least 70%.

GRADE SCALE

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

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

1. No electronic devices of any kind (cell phones, I-pod, headphone, ect.) will be tolerated in the classrooms or labs. If you are seen using any electronic device, you will be asked to leave the class for the day.
2. No food or drink will be allowed in the classroom.
3. No derogatory or foul language will be tolerated.

4. We have a zero tolerance policy for sexual harassment.
5. We have a zero tolerance policy of racial or ethnic discrimination.
6. Be considerate of others in the classroom. Remember they paid for the class just like you.