SOUTHWEST TECH
SOUTHWEST TECHNICAL COLLEGE

TEAU 1050 - Workshop Practices and Safety (1 Credit)

Course Description

In Workshop Practices and Safety, students will be introduced to the various tools and equipment to be used in the Automotive Industry. Additionally, students will complete an in-depth automotive specific safety training program. This course meets the required tasks in preparation for successful certification in ASE (Automotive Service Excellence).

Course Objectives

- Practice shop safety.
- Use and understand a digital multimeter and how to test basic electrical circuits.
- Demonstrate working knowledge of automobile information systems.
- Use and understand automotive computer diagnostic tools and equipment.
- Use and read precision measurement tools.

Course Outline

- Introduction to Safety
- Basic Electrical Testing Tools and Equipment
- Repair Information Systems
- Computer Diagnostics Tools and Equipment

Textbook & Reading Materials

Cengage Unlimited (1 year subscription), Cengage

Assignments and Assessments

Orientation
Orientation Acknowledgement
Automotive Student OE Instructions
Right to Know Agreement
Syllabus
Cell Phone
Personal Data Information
Remind Txt Group
Student Tool and Equipment Use Waiver
Cleaning Expectations
Lab Assignment Examples
SWAM 1105 Workshop Practices & Safety Check Sheet
SWAM 1105 Workshop Practices and Safety Lab Assignments
Youtube Link
Uniform Request Form
Required Tool List
Introduction to Automotive Safety
The Importance of Workplace Safety
Safety Data Sheets (SDS) and the Hazard Communication Standard (HCS)
Personal Protective Equipment (PPE)
Respirators and Air Quality
Bloodborne Pathogens (BBPs)
First Aid
Eyewash Stations
Slips, Trips, and Falls in the Shop Environment
Fire Prevention and Fire Safety
Electrical Safety
Power Tool, Hand Tool, and Equipment Safety
Lockout-Tagout (LOTO)
Jump-Starting
Jacks and Other Lifting Equipment
Welding
Electric and Alternative Fuel Vehicles
Operating Vehicles and Defensive Driving
Back Injuries and Ergonomics
Conclusion and Final Exam
Introduction To Pollution
Understanding Pollution Prevention
Waste Management and Shop Housekeeping
Oil and Other Vehicle and Equipment Fluids
Antifreeze
Solvents
Wastewater Management and Handling Spills
Batteries
Tires
Asbestos
Refrigerants
Other P2 Opportunities
Conclusion and Final Exam
Automotive Chemicals 101
Automotive Fluids 101
Motor Oil 101
Caring for Your Tools and Equipment
Hand Tools vs. Power Tools
Ethics and YOU in the Automotive Industry
Shop Safety Walkthrough
Shop Safety Walkthrough Key
Basics Of The Fluke 115 Volt/Ohm Meter (Video)
Electrical Trainer Set Up (Video)
Demonstration Of Voltage Testing (Video)
Demonstration Of Resistance Testing (Video)
Lab 1: Demonstrate Proper Volt/Ohm Meter Setup
Lab 2: Demonstrate Proper Set Up Of The Electrical Trainer
Lab 3: Using A Voltmeter, Test The Voltage Of The Power Supply And Record The Measurement, Perform Voltage Drop Testing.
Lab 4: Using A Ohm Meter, Measure The Resistance Of A Resistor, Switch, Circuit, And Record The Measurements
Basics Of A Test Light (Video)
Lab 5: Using A Test Light, Check For Power
Basics Of The Power Probe (Video)
Lab 6: Using A Power Probe, Provide The Light Bulb A Path To Ground
ALLDATA Instructions
Lab 7: Using ALLDATA, Enter Three Different Vehicles And Find Their Oil Level Specifications
Lab 8: Using The ALLDATA, Find Service Information Regarding Crankshaft End Play Specifications
Lab 9: Using ALLDATA, Find The Torque Specifications For Cylinder Head Bolts
Lab 10: Using ALLDATA, Find The Labor Time To Change A Turbocharger
Lab 11: Using ALLDATA, Find A Wiring Diagram Relating To The Radio Of The Vehicle
Lab 12: Using ALLDATA, Find A Wiring Diagram Interactive Features
Basics Of The Snap-On Verus (Video)
Lab 18: Using Snap-On Verus, Connect To Three Different Vehicles In The Shop And Check For DTCs
Lab 19: Using The Snap-On Verus, Find Powertrain Related To the O2 sensors
Lab 20: Using The Snap-On Verus, Check To See If There Is Any Available System Tests Available
Lab 21: Using The Snap-On Verus, Check To See If There Is Any Controllable Vehicle Functions
Basics Of The Matco Maximus (Video)
Lab 22: Using Matco Maximus, Connect To Three Different Vehicles In The Shop And Check For DTCs
Lab 23: Using The Matco Maximus, Find Heating and A/C Related Data
Lab 24: Using The Matco Maximus, Check To See If There Is Any Controllable Vehicle Functions
Lab 25: Using The Matco Maximus, Check To See If There Is

Any Available System Tests Available
End of Course Survey

Subject to change. Please consult your Canvas course for the most current instructions and updates.

Classroom Hours

Mo, Tu, W, Th
8:00 AM - 12:00 PM
1:00 PM - 5:00 PM

Friday
8:00 AM - 12:00 PM

For a full list of course hours visit: Course Schedule

Instructor Contact Information

Cody Dawson — cdawson@stech.edu
Shad Esplin — sesplin@stech.edu
Dallin Robinson — drobinson@stech.edu
McKael Stapel — mstapel@stech.edu

Office Hours: By appointment

Email is the preferred method of communication; you will receive a response within 24 hours during regular business hours.

Canvas Information

Canvas is the where course content, grades, and communication will reside for this course.

- stech.instructure.com
- For Canvas passwords or any other computer-related technical support contact Student Services.
- For regular Hours and Weekdays call (435) 586 - 2899.
- For after Hours & Weekends call (435) 865 - 3929 (Leave a message if no response).

Course Policies

Class attendance is required, this is not an online course. Attendance is required during your scheduled time.
Grade Scale — A: 100 - 90%, B: 89 - 80%, F: 79% or lower.
Cell phones for many have become a distraction. When you are in class or lab we encourage you to keep your cell phones put away in a secure location. If you use ear buds we ask that you only use one so you can still hear the things going on around you. If you are using your phone for things other than school related items, instructors will ask you to put them away. Please follow the direction of your instructors. Those who have been asked to refrain from using your cell phone and fail to do so will be asked to meet with the Director of Transportation and student services will be notified.
The program is designed to provide the student with as much hands-on work as possible. In the automotive industry you may be required to lift heavy objects and stand for hours at a time to complete work required. Technicians deal with chemicals and materials which require caution, these will be identified in the Right to Know Agreement provided to you. You will also be required to use computers to track and complete work.

High School Power School Grades: Quarter student grades will be determined by student progress percentage. Faculty will use the higher percentage of either 1) quarter progress, or 2) cumulative progress for the current training plan year. The progress percentage will be used with the grading scale to determine the minimum grade. High School Grade Scale: The following grading scale will be used to determine a letter grade from the progress percentage:

- A : 94 - 100%
- A- : 90 - 93%
- B+ : 87 - 89%
- B : 83 - 86%
- B- : 80 - 82%
- C+ : 77 - 79%
- C : 73 - 76%
- C- : 70 - 72%
- D+ : 67 - 69%
- D : 63 - 66%
- D- : 60 - 62%
- F : 0 - 59%

Additional Information

InformaCast Statement: Southwest Tech uses InformaCast to ensure the safety and well-being of our students. In times of emergency, such as weather closures and delays, this app allows us to promptly deliver notifications directly to your mobile devices. To stay informed and receive real-time updates, we encourage all students to sign up for notifications. Your safety is our priority, and staying connected ensures a swift response to any unforeseen circumstances. More information and directions for signing up are available at: https://stech.edu/emergency-notifications/

Internet Acceptable Use Policy: The student is expected to review and follow the Southwest Technical College Internet Safety Policy at: https://stech.edu/students/policies/

Student Code of Conduct Policy: The student is expected to review and follow the Southwest Technical College Student Code of Conduct Policy at: https://stech.edu/students/policies/

Accommodations: Students with medical, psychological, learning, or other disabilities desiring accommodations or services under ADA, must contact the Student Services Office. Student Services determines eligibility for and authorizes the provision of these accommodations and services. Students must voluntarily disclose that they have a disability, request an accommodation, and provide documentation of their disability. Students with disabilities may apply for accommodations, based on an eligible disability, through the Student Services office located at 757 W. 800 S., Cedar City, UT 84720, and by phone at (435) 586-2899. No diagnostic services are currently available through Southwest Technical College.

Safety and Building Maintenance: The College has developed and follows a variety of plans to ensure the safe and effective operation of its facilities and programs. The following plans are available online:
1) Facilities Operations and Maintenance Plan; 2) Technical Infrastructure Plan; and 3) Health and Safety Plan.

Withdrawals and Refunds: Please refer to the Southwest Technical College Refund Policy at:
https://stech.edu/students/policies/

Any high school or adult student, who declares a technical training objective is eligible for admission at Southwest Technical College (Southwest Tech). Program-specific admissions requirements may exist and will be listed on the Southwest Tech website. A high school diploma or equivalent is not required for admission but is mandatory for students seeking Title IV Federal Financial Aid.

Non-Discriminatory Policy: Southwest Technical College affirms its commitment to promote the goals of fairness and equity in all aspects of the educational enterprise, and bases its policies on the idea of global human dignity.

Southwest Tech is committed to a policy of nondiscrimination. No otherwise qualified person may be excluded from participation in or be subjected to discrimination in any course, program or activity because of race, age, color, religion, sex, pregnancy, national origin or disability. Southwest Technical College does not discriminate on the basis of sex in the education programs or activities that it operates, as required by Title IX and 34 CFR part 106. The requirement not to discriminate in education programs or activities extends to admission and employment. Inquiries about Title IX and its regulations to STECH may be referred to the Title IX Coordinator, to the Department of Education, and/or to the Office for Civil rights.

If you believe you have experienced discrimination or harassment on our campus, please contact the Title IX Coordinator, Cory Estes: cestes@stech.edu, (435) 865-3938.

For special accommodations, please contact the ADA Coordinator, Cyndie Tracy: ctracy@stech.edu, (435) 865-3944.
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