

# AUTT 1040 Automotive Engine Performance COURSE SYLLABUS Spring Semester 2021

#### **COURSE INFORMATION**

Credit Hours/Minutes: 7/11500 Class Location: SECCA Building AT-2 Class Meets: MTWR 9:00 AM-12:30 PM Course Reference Number: 40158

#### INSTRUCTOR CONTACT INFORMATION

Instructor Name: Will Fountain
Office Location: SECCA/Room AT-2
Office Hours: MTWR 1:00PM-6:00PM

Email Address: wfountain@southeasterntech.edu

Phone: 912-538-3155

Fax Number:

Tutoring Hours (if applicable): See Instructor

#### 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 <a href="Catalog and Handbook">Catalog and Handbook</a> (<a href="http://www.southeasterntech.edu/student-affairs/catalog-handbook.php">http://www.southeasterntech.edu/student-affairs/catalog-handbook.php</a>).

#### **REQUIRED TEXT**

Vangelder Fundamentals Of Automotive Technology – Principles and Practices CDX learning Systems

#### **REQUIRED SUPPLIES & SOFTWARE**

Required items include; Automotive Technology Book, Automotive Technology lab manual, Safety Glasses, 1" Binder notebook for lab sheets, and Approved Uniform, STC Automotive Technology Shirts. (Shirts can be purchased in the bookstore)

Recommended, but not required; Nitrile Gloves, Mechanics Gloves.

#### **COURSE DESCRIPTION**

Introduces basic engine performance systems which support and control four stroke engine gasoline engine operations and reduce emissions. Topics include: general engine diagnosis, computerized engine controls and diagnosis, ignition system and repair, fuel and air induction, exhaust systems, and emission control systems

diagnosis and repair.

#### **MAJOR COURSE COMPETENCIES**

General Engine Diagnosis, Ignition system Diagnosis and Repair, Computerized engine Controls Diagnosis and Repair, Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair, emissions Control Systems Diagnosis and Repair.

#### PREREQUISITE(S)

All Required

#### **COURSE OUTLINE:**

- 1. General Engine Diagnosis
- 2. Ignition System Diagnosis & Repair
- Computerized Engine Controls Diagnosis & Repair
- 4. Fuel, Air Induction, and Exhaust Systems Diagnosis & Repair
- 5. Emissions Control Systems Diagnosis & Repair

#### **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

Students are expected to complete all tests and comprehensive problems by the due dates. A ten point penalty will be assessed for each day a comprehensive problem is late. There are no makeup tests. Tests are made available for several days; therefore, there are no makeup tests. Students who miss a test will be assigned a grade of zero. Students are responsible for policies and procedures included in the *STC E-Catalog*.

#### **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.

COV	ID-19	Key Sy	gmy	toms
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Fever or felt feverish

#### **COVID-19 Key Symptoms**

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)

#### In the past 14 days, if you:

Have had close contact with or are caring for an individual diagnosed with COVD-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 <u>COVID 19 Health Reporting Form https://bit.ly/2Xq4g0f</u>. Report all positive cases of COVID-19 to your instructor and <u>Stephannie Waters</u>, Exposure Control Coordinator, <u>swaters@southeasterntech.edu</u>, 912-538-3195.

#### **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.

#### 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), 478-289-2274, Building 1, Room 1210. Vidalia Campus: Helen Thomas (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), 478-289-2274, Building 1, Room 1210. Vidalia Campus: Helen Thomas (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% 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 accessed 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.)

(Tests, quizzes, homework, projects, etc...): If a student misses a test, a grade of zero will be assigned.

Only students with extenuating circumstances (who contact the instructor on the day of the test
regarding their absence) will be allowed to take a makeup test, which will replace the zero. 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:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer
Helen Thomas, Special Needs Specialist	Lanie Jonas, Director of Human Resources
Vidalia Campus	Vidalia Campus
3001 East 1 <sup>st</sup> Street, Vidalia	3001 East 1 <sup>st</sup> Street, Vidalia
Office 165 Phone: 912-538-3126	Office 138B Phone: 912-538-3230
Email: <u>Helen Thomas</u>	Email: <u>Lanie Jonas</u>
hthomas@southeasterntech.edu	ljonas@southeasterntech.edu

#### **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 <u>Southeastern Technical</u> <u>College (STC) Website (www.southeasterntech.edu)</u>.

#### 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	
EXAMS	30%	
LAB ACTIVITIES	30%	
ASSIGNMENTS	20%	
FINALS	20%	
	100%	

#### **GRADING SCALE**

<b>Letter Grade</b>	Range
Α	90-100
В	80-89
С	70-79
D	60-69
F	0-59

# **AUTT 1040 Automotive Engine Performance**Spring Semester 2021 Lesson Plans

Date/Week	Chapter/Lesson	Content	Assignments & Tests	Competency
1	62.67	Consideration Discounting	Due Dates	Area
January 11	63-67	General Engine Diagnosis	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 1			test, quizzes, lecture	
January 18	63-67	General Engine Diagnosis	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 2			test, quizzes, lecture	
January 25	63-67	Ignition System Diagnosis and	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 3		Repair	test, quizzes, lecture	
February 1	63-67	Ignition System Diagnosis and	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 4		Repair	test, quizzes, lecture	
February 8	63-67	Computerized Engine Controls	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 5		Diagnosis and Repair	test, quizzes, lecture	
February 15	63-67	Computerized Engine Controls	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 6		Diagnosis and Repair	test, quizzes, lecture	
February 22	63-67	Computerized Engine Controls	CH's 63-67; lab, test,	1,2,a,b,c,d,P1
/Week 7		Diagnosis and Repair	quizzes, PP, lecture	
March 1	63-67	Computerized Engine Controls	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 8		Diagnosis and Repair	test, quizzes, lecture	
March 8	63-67	Fuel, Air, Induction, and Exhaust	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week9		Systems Diagnosis and Repair	test, quizzes, lecture	
March 15	63-67	Fuel, Air, Induction, and Exhaust	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 10		Systems Diagnosis and Repair	test, quizzes, lecture	
March 22	63-67	Fuel, Air, Induction, and Exhaust	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 11		Systems Diagnosis and Repair	test, quizzes, lecture	, , , , , ,
March 29	63-67	Emissions Control Systems	Chapters 63-67; lab,	1,2,a,b,c,d,P1
Week/12		Diagnosis and Repair	test, quizzes, lecture	
April 12	63-67	Emissions Control Systems	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 13		Diagnosis and Repair	test, quizzes, lecture	
April 17	63-67	Emissions Control Systems	Chapters 63-67; lab,	1,2,a,b,c,d,P1
/Week 14		Diagnosis and Repair	test, quizzes, lecture	
April 20	FINALS	FINALS	FINALS	1,2,a,b,c,d,P1
/Week 15				

## **Competency Areas:**

- 1. General Engine Diagnosis
- 2. Computerized Engine Controls Diagnosis and Repair
- 3. Ignition System Diagnosis and Repair
- 4. Fuel, Air Induction, Exhaust Systems Diagnosis and Repair
- 5. Emissions Control Systems Diagnosis and Repair

### **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.