



AUTOMOTIVE INTRODUCTION

Course Syllabus

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Course Number:	INT101	Instructor:	Ron Rader
OCAS Code:		Phone Number:	580-327-0344
Course Length:	45 hours	Email:	rrader@nwtech.edu
Career Cluster:	Transportation	Campus:	Alva, OK
Career Pathway:	Automotive Service	Program:	Automotive Service Technology
Career Major:	Automotive Service Technician, Automotive Chassis Technician, Automotive Maintenance Light Repair Technician, Air Conditioning Technician, Automotive Drivability Technician		
Pre-requisite:	None		
Course Description:	This course covers occupational health and safety, tools and equipment identification, usage and operation. The students will learn about the history, current state and future of the automotive service industry. This course will cover dealership and independent operations. Students will learn vehicle identification and how to look up service information using several different sources. Students will learn vehicle maintenance, which will include fluid level checks and adjustments, peripheral electrical system checks and tire inspection and air pressure adjustment. In this course the students will learn basic measuring instruments used in vehicle service and diagnosis, as well as communication skills used throughout the automotive service industry.		
Instructional Philosophy:	To provide a training program that is of merit both educationally and ethically while effectively providing the individual learner the opportunities, knowledge and skills necessary to succeed in the workplace as well as life.		
Course Goals:	Upon successful completion of this course, the student will be able to:		
	Competencies:		
	Automotive History and Career Exploration		
	Occupational Health & Safety		
	Using an MSDS		
	Hazardous Waste procedures		
	Using fire extinguishers		
	Emergency procedures		
	Basic first aid & CPR		
	Personal safety		
	Defect warning procedures		
	Cleaning tools & equipment		
	Workplace security procedures		
	Tools & Equipment		
	Using hand tools		
	Using a floor jack		
	Using a two-post hoist		
	Using a four-post hoist		
	Using an engine hoist		
	Using a torque wrench & an angle gauge		
	Setting up an oxyacetylene torch		
	Using an oxyacetylene torch		
	Using a lubrication gun		

Using an air drill
Using an air impact wrench
Using an air chisel
Using an air blow gun
Using an electric drill
Using an angle grinder
Using a bench grinder
Using a lead light
Using a gear puller
Using a screw extractor
Using a micrometer
Using a dial indicator
Using a feeler gauge
Using a tire pressure gauge
Measuring a fastener
Repairing an internal thread
Removing a stud
Repairing an external thread
Using a vacuum gauge
Vehicle Maintenance
Identifying powertrain configurations
Identifying chassis configurations
Identifying axle configurations
Identifying powertrain configurations
Locating vehicle information
Identifying axle configurations
Measuring vehicle wheelbase
Decoding a VIN
Using an owner's manual
Using a shop manual
Using a repair manual
Using a computerized service system
Using a parts manual
Using a labor guide
Complete Work Order to contain pertinent information
Checking engine oil
Checking & adjusting power steering fluid
Checking & adjusting transmission fluid
Checking & adjusting brake fluid
Checking & adjusting differential/transaxle fluid
Checking & adjusting coolant levels
Checking windshield washer fluid
Checking peripheral electrical systems
Checking & replacing wiper blades
Checking & adjusting tire pressures
Checking seat belts

**Major Course
Projects:**

Students will perform tasks relating to the Automotive Service Industry as per standards identified by the National Automotive Technicians Education Foundation (NATEF). Students will complete repair orders each day and will document completion of

Project Outline:	competencies on competency profiles tracking individual progress and accomplishment. Projects will include performing tasks on mock ups, shop vehicles, and live work as student skills progress. These projects will reinforce classroom theory instruction and will require the student to consult industry service information during the course of task performance.
Instructional Delivery Plan:	The instruction for this course will be comprised of multiple methods designed to promote and accommodate different learning styles including classroom lecture, classroom demonstrations, shop demonstrations, hands on learning activities, classroom discussion, interactive media, textbook, computer based learning activities, research projects, guest speakers, student presentations, and interactive learning with CPS (Classroom Performance System). Students will be required to practice the skills associated with the instructional content and will be required to work independently and also in teams. Assignments will require students to use academic skills in math, science, and language arts.
Assessment Plan:	Students will be assessed according to three basic kinds of learning. Knowledge: Does the student possess the required knowledge to perform a specific competency? Skills: Does the student possess the necessary coordination to perform the task/competency? Attitude: Will the student perform the task/competency on the job after learning to do it? Students will also be assessed according to the basic work skills of attendance and promptness. Soft skills will be assessed in the Academic Career Center. 50% Daily work- Performance of technical skills on job, work habits, safety, clean-up, participation 50% Written assignment- Repair orders, textbook assignments, etc. Grading Scale: A 90-100 Exceeds expectations B 80-89 Meets industry standards and expectations C 70-79 Passing grade, but does not meet some standards D 60-69 Passing, but only meets the minimum standards F Below 60 Failing, does not meet minimum standards OSU Okmulgee
Alliance Credit Offered:	
Industry Alignments:	ASE Certification, ODCTE Certification,
End of Instruction Industry Assessment:	ASE Certification, ODCTE Certification,
Resources:	Automotive Excellence Vol. 1 and Vol. 2 Introduction to Automotive Service: Fundamental Concepts CDX Global Interactive Training Snap On Shop Key Modern Automotive Technology Alldata
Attachments:	See Automotive Service Technology Task List Competency Handbook