Syllabus - AUTO 113L Section(s) 01 Automotive Lab I

Instructor's Name
Mark Magill
Automotive Technology Instructor

Instructor Contact Information
Office: SBT 102 A
Phone: 208.769.3461
E-mail: Mark_Magill@nic.edu

Credit Hours for Course
2

Course Description
This course gives students hands-on exposure in a shop setting to those subjects covers in AUTO-105 and AUTO-130 theory classes. Instruction utilizes a variety of mock-ups, training aids, components, and live work. The student will be able to explain and demonstrate proper safety precautions when lifting and supporting a vehicle, or using tools and equipment, or handling asbestos containing materials.

Required Materials
Tools and tool box will be required according to the minimum required tool list. Appropriate clothing and protective leather boots or work shoes must be worn to work in the lab. Safety Glasses.


Method of Course Delivery
This course will be delivered in a lab setting. Students will be working on vehicles, components, and mock-ups to give them hands on experience to apply concepts learned in AUTO 130 theory class.

Assessments
Achievement of these outcomes will be measured by the successful completion of assigned projects, grades given on live work projects, safety and shop practices, performance tests, and attendance as identified in the syllabus.

Course Schedule
This course is taught from 10:00 a.m. to 1:50 p.m. Monday through Friday for 7 weeks.

Grading Policy
Testing and grading is done at North Idaho College for the purpose of measuring the student's progress through-out the course of study. If you're not learning, then both you and the instructor need to know that.
IN THE CLASSROOM

You will receive a separate grade for each course you registered for.
Students seeking a Certificate of Completion or an AAS Degree must earn an overall grade point average of at least a 2.00 (C) in all courses required in the program.
A grade of "C-" or better is also required for each specific course listed within the program outline.
Theory grades may be based on a combination of one or more of the following:
Objective tests, quizzes, study guides, chapter review questions, possible reports, and attendance.
Each test must be passed with a grade of 65 or better to pass each course.
You will only be allowed to retake 1 failed test per course.

IN THE LAB

Lab grades will be based on one or more of the following:
Successful completion of assigned projects
Grades given on live work projects
Safety and shop practices
Performance tests
Attendance

GRADING SCALE FOR THEORY AND LAB

A = 96-100
A- = 93-95
B+ = 90-92
B = 86-89
B- = 83-85
C+ = 80-82
C = 76-79
C- = 73-75
D+ = 70-72
D = 67-69
D- = 65-66
F = < 64

Attendance Procedure

Attendance is mandatory and directly affects your grade for each course.

Definition: TARDY
The student has arrived in the class or lab room after instructor has started the class session.
2 Tardies = 1 Absence

Definition: ABSENCE
The student is not present in the class or lab room for any reason, except for school authorized events.
Students arriving in class/lab 15 minutes or more minutes late are considered to be absent.
Definition: PROBATION
A formal written statement informing the student of their below standard level of performance, possible consequences, and what they need to do to correct it. You will be placed on probation if your cumulative grade average drops below a “C-” (1.75)

Absences cannot normally be made up, except in certain lab situations with instructor permission and proper supervision. Extended illness or emergency situations will be dealt with on an individual basis, with the school counselor being involved if necessary.

You will be allowed to miss 1 (one) day of class for each credit of a course you are enrolled in. Each additional absence will take 5 points off of your final course grade average.

EXAMPLE:
AUTO 126 is a 3 credit course. You may miss 3 days without penalty. If you missed 6 days, (3 penalty days), 15 points will be taken off of your final course grade for AUTO 126. If you had earned an 86, a “B”, 15 points off would reduce your average to a 71, a “D+”.

Program Expected Outcomes

AAS Degree

Understand and explain proper safety procedures in regards to overall shop safety practices with emphasis on maintenance/repair of automotive systems.

Effectively troubleshoot and repair the following automotive systems required for NATEF program certification:
Engines
Automatic transmissions and transaxles
Manual drive train and axles
Suspension and steering
Brakes
Electrical/Electronic systems
Heating and air conditioning
Engine performance

Demonstrate basic computation and communications skills in performing both technical and general functions required of an automotive technician.

2-year Certificate

Understand and explain proper safety procedures in regards to overall shop safety practices with emphasis on maintenance/repair of automotive systems.

Effectively troubleshoot and repair the following automotive systems required for NATEF program certification:
Engines
Automatic transmissions and transaxles
Manual drive train and axles
Suspension and steering
Brakes
Electrical/Electronic systems
Heating and air conditioning
Engine performance

Understand the importance of good work habits, communications practices and computation skills as they relate to the automotive industry.

General Education Abilities

Do you know for sure where you will be 10 years from now? Neither do we! We do know that the average person changes major job roles 5 to 7 times in their working career. Most of us in the Applied Tech areas, who are now teaching, started out as technicians. We had no idea we would some day be teaching.

You need to be prepared for the changes that will surely come in your work career. Those changes will require new abilities, and a broader perspective of your role in the work place. To that end, North Idaho College feels a responsibility to help you grow technically, socially, and culturally. During your time here we want you to be exposed to all or some of the following abilities.

YOUR EXPOSURE WITHIN THE AUTOMOTIVE TECHNOLOGY PROGRAM, TO THE GENERAL EDUCATION ABILITIES

Demonstrates the ability to recognize the elements of design, the unifying element, the context, the purpose, and the effect of artistic creations.
You will discuss in class the various considerations involved in the design of the automotive body and chassis. Especially with regard to how that design impacts visual effect, sales, mechanical functionality, and the cost of the vehicle.

Demonstrates the ability to recognize, send, and respond to communications for varied audiences and purposes.
You will be required to write on automotive work orders what you have found with regard to the customer complaints, the problems found, and the repairs done. You will also learn to prepare resumes, cover letters, and general job application materials.

Demonstrates the ability to analyze and evaluate information and arguments, construct a well-supported argument, solve problems in multiple contexts individually and collaboratively.
You will be required to answer questions in class regarding the theory of operation of various automotive systems, the types of failures that can occur, and the symptoms that arise from those failures. You will also have to determine what the best way to repair the vehicle is; balancing the nature of the repair and the ability of the customer to pay.

Demonstrates the ability to recognize key ideas, achievements, issues, diverse cultural views and events, on lo-cal, national, and global levels.
You will discuss in class the major laws and events in automotive history and the impact those laws have had on the cost of vehicles, their design, and the overall effect on customer safety and health. You will also be required to discuss the various aspects of working with other employees of diverse
cultural backgrounds, genders, and nationalities.

Demonstrates the ability to access information for a given need, and to utilize a set of integrated re-search skills.
Throughout the program you will be using factory and after market technical manuals, as well as computerized information retrieval systems, to access information related to the repair and maintenance of automotive systems.

Demonstrates the ability to apply mathematical and scientific reasoning to investigate and to solve problems.
You will continually be required to demonstrate your ability to test, measure and evaluate the condition of automotive components and systems.

Demonstrates awareness of the relationships that exist between the individual and social groups and/or private/public institutions, the nature and ethics of these relationships, and the responsibilities and consequences that result from changes in these relationships.
You will be required to discuss and write about the relationships between you and other employees on the job, as well as be able to discuss your part in the overall operation of an automotive repair business. Issues of safety, honesty, and appropriate work ethics will be a part of those discussions.

Demonstrates the ability to apply what one knows, believes, and understands toward developing an empathetic and analytical understanding of others’ value perspectives.
You will be required to consider and discuss your work as an automotive technician from the perspective of a shop owner, as well as from the perspective of customers. You will become aware of their fears, perspectives and expectations.

Learning Outcomes
Upon completion of this course the student will be able to disassemble, measure, identify, repair, or replace components as necessary on gasoline engines as well as remove and replace engines. The student will also be able to diagnose and repair brake problems and various power train related malfunctions in the modern automobile.

Student Responsibilities
http://www.nic.edu/handbook2007.pdf#page=34
Center for Educational Access/Disability Support Services
Course Withdrawal Information
http://www.nic.edu/catalog/2008-09/academic+registration.pdf
Non-payment Information
www.nic.edu/costs
Course Incomplete Information
www.nic.edu/catalog/2008-09/academic+registration.pdf#page=3
Final Exam Schedule
http://www.nic.edu/Websites/index.asp?dpt=49&pageID=1311