SYLLABUS

COURSE # AND TITLE T-TEN 160 Toyota Heating & Air Conditioning # OF CREDITS 2

CATALOG DESCRIPTION
A theory and shop course to teach the student automotive air conditioning and heating systems as they apply to Toyota. The safe use of test equipment will be emphasized and the student will learn to diagnose, evacuate, recover, recycle and recharge refrigerant air conditioning systems. Co-requisite TTEN 150.

Semester Offered: Summer
Prerequisites:

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

BROAD AND SPECIALIZED LEARNING
Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING
Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT
Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION
Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY
Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES
Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

GENERAL LEARNING OBJECTIVES

1. To provide the student with practical methods to insure a system capable of heating and cooling.
2. Completion of 100% of NATEF priority 1 tasks.
3. Completion of 85% of NATEF priority 2 tasks.
4. Completion of 75% of NATEF priority 1 tasks.

SPECIFIC LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to…

1. Demonstrate safe techniques while working with refrigerant systems.
2. Leak test a refrigerant system.
3. Evacuate, recycle and recharge an air conditioning system.
4. Diagnose an air conditioning system using pressure gauges.
5. Replace seals, clutches, and bearings on A.C. compressors.

6. Diagnose and repair A.C. electrical systems.
7. Replace refrigerant lines.
8. Remove and replace a receiver dryer.
9. Remove and replace a condenser.
10. Remove and replace an evaporator.
11. Remove and replace a heater core.
12. Service a heater control valve.
13. Diagnose and repair a no-heat condition.
14. Remove and replace a blower motor.
15. Diagnose and repair conditions related to the blower motor circuits such as shorts and opens.
16. Diagnose and service climate control systems using manufacturers' processes.
17. Test vacuum components.

Syllabus developed by _____ Date: _____

Syllabus reviewed by _____ Date: _____

A current syllabus must be on file in the dean's office for every course being taught during a given semester.