

_____SOUTH SEATTLE COMMUNITY COLLEGE_____

Technical Education Division

COURSE OUTLINE

Revision: S. Ford February 2012

DEPARTMENT:	Automotive Technology
CURRICULUM:	Auto Body Collision Repair
COURSE TITLE:	Electrical and Electronic Systems
COURSE NUMBER:	ABR 182
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	5 weeks
CREDIT HOURS:	7
LECTURE HOURS:	20
LAB HOURS:	100
CLASS SIZE:	20
PREREQUISITES:	None

COURSE DESCRIPTION:

This module will teach students to diagnose and repair electrical and mechanical systems problems.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Critical Thinking and Problem Solving - Diagnose and trouble shoot electrical system problem
2. Computation - Apply basic math skills
3. Technology - Select and use technological tools for electrical current diagnosis.

ABR 182 Electrical and Electronic Systems

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Apply accepted industry safety practices while working with electrical parts.
2. Understand volts, amperage and resistance
3. Explain electrical circuits and measure electrical circuits.

TOPICAL OUTLINE:	APPROX. HOURS
I. Electrical Theory	10
II. Battery and battery cable inspection and service	10
III. Inspection and adjustment of alternators drive belts, pulleys and cooling fans	10
IV. Inspection, testing and replacement of fusible links, circuit breakers and fuses	10
V. Wiring diagrams and diagnostic flowcharts	10
VI. Inspection and repair of wiring and connections	10
VII. Inspection, removal and replacement of switches, relays, bulbs, and sockets of all lighting equipment	10
VIII. Removal, replacement and repair of power window systems.	10
IX. Removal, replacement and repair of power seat systems	10
X. Removal, replacement and repair of power lock systems, keyless entry system, and alarm devices	10
XI. Removal, replacement and repair of windshield wiper washer systems	10
XII. Removal, replacement and repair of electrically heated mirrors and glass	10
Total	120

REVISED BY: Steve Ford
DATE: February 2012