_____SOUTH SEATTLE COMMUNITY COLLEGE_____
Technical Education Division

COURSE OUTLINE
Revision: Rodger Squirrell July 14, 2009

DEPARTMENT:	Manufacturing Technology
CURRICULUM:	Welding Fabrication Technology
COURSE TITLE:	Gas Metal and Flux Core Arc Welding
COURSE NUMBER:	WFT 124
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	1 Quarter
CREDIT HOURS:	5
LECTURE HOURS:	22
LAB HOURS:	66
CLASS SIZE:	25
PREREQUISITES:	Some experience with OAW (“gas welding”) desirable or by instructor permission

COURSE DESCRIPTION:

A project-oriented set of practical exercises that convey knowledge of equipment along with theory of operation and applications of the popular Gas Metal & Flux Core Arc Welding (GMAW & FCAW) processes (A.K.A. “MIG” and “Dualshield,” “Innershield,” etc. respectively). Mild steel, aluminum, and stainless steel are commonly welded with these processes in a variety of industrial applications.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Communicate and work in groups to complete minimum skills activities

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STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

2. Complete reading and written work as assigned. Tack, production weld, and finish as required for assigned activities. Demonstrate consistent safe work habits including citizenship. Demonstrate consistent quality workmanship per industry standards.
3. Formulate and communicate a plan of action for assigned fabrication and maintenance projects

GENERAL COURSE OBJECTIVES:

At the end of the course the student will be able to:

1. Identify components of a Gas Metal & Flux Core Arc Welding station
2. Explain GMAW & FCAW principles of operation
3. Safely transport, assemble, adjust, and maintain a GMAW & FCAW station.
4. Perform assigned laboratory exercises using GMAW & FCAW

TOPICAL OUTLINE		APPROX. HOURS
I.	History of GMAW & FCAW	1
II.	Components of a GMAW & FCAW system	2
III.	Operating principles of GMAW & FCAW	10
IV.	Setup & use of GMAW & FCAW system	10
V.	Techniques for using GMAW & FCAW	65
	Total	88

Detailed Topical Outline is available separately

REVISED BY: John Todd
DATE: January 20, 2003