_____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 Tungsten Arc Welding
COURSE NUMBER:	WFT 127
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	1 Quarter
CREDIT HOURS:	5
LECTURE HOURS:	33
LAB HOURS:	44
CLASS SIZE:	25
PREREQUISITES:	Experience with OAW ("gas welding") and at least one arc welding process 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 Gas Tungsten Arc Welding (GTAW) process (A.K.A. "TIG" and "Heliarc®"). The high quality welds produced by this process are commonplace in pressure piping systems, aerospace products, and when using heat-sensitive metals. The GTAW process provides both high quality and excellent weld appearance.

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. Personal Responsibility - 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. Critical Thinking and Problem Solving - 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 Tungsten Arc Welding station
2. Explain GTAW principles of operation
3. Safely transport, assemble, adjust, and maintain a GTAW station
4. Perform assigned laboratory exercises using GTAW

TOPICAL OUTLINE		APPROX. HOURS
I.	History of GTAW	1
II.	Components of a GTAW system	2
III.	Operating principles of GTAW	4
IV.	Setup & use of GTAW system	5
V.	Techniques for using GTAW	65
	Total	77

Detailed Topical Outline is available separately

REVISED BY: John Todd
DATE: January 20, 2003