COURSE NUMBER AND TITLE:  WELD 1755- 01 Shielded Metal Arc Welding

SEMESTER/YEAR:    Fall 2006

LECTURE HOURS:  2    LABORATORY HOURS:   10   CREDITS:  7

CLASS TIME:  8:00 - 11:50 a.m.  MWF  ROOM:  WT 141

INSTRUCTOR'S NAME:  Darin Miller

INSTRUCTOR’S CONTACT INFORMATION:
    Office Location:  WT 145
    Office Phone:  268-2278
    EMAIL:  dmiller@caspercollege.edu

OFFICE HOURS:  As posted

COURSE DESCRIPTION: Provides the student with the technical knowledge of Shielded Metal Arc Welding (SMAW) safety, power sources, and electrode classification and selection. Training is provided to develop skills necessary to produce quality welds on mild steel in all positions using mild steel electrodes, low hydrogen electrodes, and iron powder electrodes using both AC and DC current.

STATEMENT OF PREREQUISITES:  None

GOAL:  Training is provided to develop skills necessary to produce quality welds on mild steel in all positions using mild steel electrodes, low hydrogen electrodes and iron powder electrodes using both AC & DC current.

OUTCOMES: For the student to develop the ability, knowledge, and understanding of Shielded Metal Arc Welding safety, power sources, weld size and profile, electrode classification and selection, weld preparation and testing, joint geometry, welding positions, and multiple pass bead, fillet, and groove with backing welds in all positions.

METHODOLOGY:  One (1) lecture hour per week and a one (1) hour of lab for 10 weeks.

EVALUATION CRITERIA:  The student will be evaluated on quizzes, tests, and lab projects. The quizzes and tests may be either written or practical. There will be three written tests - with a comprehensive final test worth 30% of the final grade.

    Grading Scale:  
    100 - 90 =  A  
    89 - 80 =  B  
    79 - 70 =  C  
    69 - 60 =  D  
    59-below =  F

Attendance Policy:  Attendance is of utmost importance. Unexcused absences in the excess of 4 will result in the loss of one letter grade. Due to the consideration of the instructors and students, you must be present at the designated starting class time or you will not be allowed to participate unless prior arrangements with the instructor have been made.

Tool Use:  Misuse of shop tools will result in the loss of tool privileges.
REQUIRED TEXT, READINGS, MATERIALS: Shielded Metal Arc Welding I, Hobart

CLASS POLICIES:
Last Date to Change to Audit Status: See current Casper College catalog.
Last Date to Withdraw With a W Grade: See current Casper College catalog.

SAFETY: Personal and equipment safety standards will be strictly enforced. It is the
individual’s responsibility to develop and use a safe work attitude.

STUDENT RIGHTS AND RESPONSIBILITIES: Please refer to the Casper College Student
Conduct and Judicial Code for information concerning your rights and responsibilities as a
Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the
instructor in order to solve the problem. If you are not satisfied with the solution offered by
the instructor, you should then take your problem through the appropriate chain of
command starting with the department head, then the division chair, and lastly the vice
president for academic affairs.

Academic Dishonesty - Cheating & Plagiarism: Casper College demands intellectual honesty.
Proven plagiarism or any form of dishonesty associated with the academic process can
result in the offender failing the course in which the offense was committed or expulsion
from school. See the Casper College Student Code of Conduct.

ADA Accommodations Policy: It is the policy of Casper College to provide appropriate
accommodations to any student with a documented disability. If you have a need for
accommodation in this course, please make an appointment to see me at your earliest
convenience.

CALENDAR OR SCHEDULE INDICATION COURSE CONTENT:

Topical Outline:
1. Introduction to SMAW
2. Safety and Health of Welders
*3. Fillet Weld Lap Joint - Horizontal 2F position (VIS)
4. Weld Size and Profile
*5. Fillet Weld Lap Joint - Overhead 4F position (VIS)
   Test # 1
*6. Air Arc Cutting (VIS)
*7. Fillet Weld Lap Joint - Vertical UP 3F position (VIS)
*8. Fillet Weld Lap Joint - All position (ETCH)
9. Single Bevel Groove Weld - Horizontal 2G position
*10. Single Bevel Groove Weld - 2G (guided bend)
11. Single Vee Groove Weld - Vertical up 3G position
*12. Single Vee Groove Weld - 3G (guided bend)
13. Metals Identification for Welding
   Test #2
*15. Single Vee Groove Weld - 4G (guided bend)
16. Single Vee Groove Weld - Flat 1G position
*17. Single Vee Groove Weld - 1G (guided bend)

*Graded Lab projects
( ) Testing Method