COURSE NUMBER AND TITLE: WELD 2520-01 PIPE WELDING II

SEMESTER/YEAR: Spring 2016

LECTURE: 2 LABORATORY: 6 CREDITS: 5

CLASS TIME: 1:00-4:50 p.m. MW ROOM: WT 128/141

INSTRUCTOR'S NAME: Darin Miller

INSTRUCTOR'S CONTACT INFORMATION:
Office Location: WT 129A
Office Phone: 268-2278
Email: dmiller@caspercollege.edu

OFFICE HOURS: See current schedule posted on office door.

COURSE DESCRIPTION: Designed to combine skills developed in previous courses, students prepare pipe joints on carbon steel pipe. Welding will be done using the Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), and Gas Metal Arc Welding (GMAW) processes in the 1G, 2G, 5G, and 6G positions. This course includes welder qualification performance tests in accordance with Section IX of the ASME Boiler and Pressure Vessel Code.

STATEMENT OF PREREQUISITES: WELD 2510

GOAL: Pipe layout and fabrication will be a major portion of coursework. Course to run concurrently with WELD 2510 for advanced instruction.

OUTCOMES: To develop fabrication and layout skills using (SMAW), (GMAW) and (GTAW) processes for welding of ferrous and nonferrous pipe. To meet applicable code requirements.

METHODOLOGY: Course will consist of two (2) lecture hours and six (6) lab hours per week for sixteen (16) weeks.

EVALUATION CRITERIA: Students will be evaluated on the quality of assigned laboratory exercises and quizzes given throughout the length of the course. Additional grading will come in the form of a mid-term and final exam.

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 instructor 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 loss of tool privileges.

REQUIRED TEXTS, READINGS, AND MATERIALS: Pipe Layout for Fitters & Welders, Hobart Institute

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.

No cell phones or other electronic devices are allowed in the classroom or laboratories.
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’S 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 Dean, and lastly the vice president for academic affairs.

Academic Dishonesty – Cheating and 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.

Official Means of Communication: Casper College faculty and staff will employ the student’s assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college’s Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

CALENDAR OF COURSE CONTENT:

LAB
Satisfactorily complete: Plate Tests – 3 positions
*1-G (VIS)
*5-G- (Guided bend)
*2-G (Guided bend)
*6-G Carbon Steel Pipe Test using SMAW to ASME Sec IX (Guided bend)
*6-G Carbon Steel Pipe Test using GTAW to ASME Sec IX (Guided bend)
*2G, 5G (up and down), & 6G Pipe (VRTEX) 80% required
*Fabricate fittings corresponding to unit studies, as class allows. (VIS)

LECTURE
Sec 6 Two Piece Parallel offsets
Sec 7 Offsets Around Obstructions
Sec 8 Rolling Offsets
Sec 9 Fabricated Tees, Lateral Tees and Circumferential Sleeves
Sec 10 Pipe Blanking, Elliptical Holes, Blind Flanges and Fabricating Brackets
*Graded Lab projects
( ) Testing Method