COURSE SYLLABUS

WLDG 2406 (4:2:8)

Intermediate Pipe Welding

Welding Technology Program

Industrial Technology Department

Technical Division

Levelland Campus

SOUTH PLAINS COLLEGE

Fall 2018

COURSE SYLLABUS

COURSE TITLE: WLDG 2406 - Intermediate Pipe Welding

INSTRUCTOR: Don Hill, Office WT 106,
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OFFICE HOURS: Posted on instructors office door.

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I. GENERAL COURSE INFORMATION:

A. **Course Description:** A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Welds will be done using various positions. Topics covered include electrode selection, equipment setup, and safe shop practices.

B. **End-of- Course Outcomes:** Describe equipment and required pipe preparation; perform welds using various positions.

C. **WLDG 2406** is taught in one of the three five week periods during the Fall and Spring semesters. Students are required to complete all lecture and lab competencies in this course before starting the next course.

D. **Course Competencies:**

1. The student will demonstrate proficiency in the preparation of carbon steel pipe for open root v-groove welds and v-groove welds with backing. The student will achieve a minimum performance rating of “3” when performing these skills.
2. The student will demonstrate proficiency in shielded metal arc welding of carbon steel pipe in the 1G, 2G, 5G, and 6G positions. The student will achieve a minimum performance rating of “3” when performing these skills.
3. The student will attain a minimum proficiency rating of 70% on written tests covering shielded metal arc welding of pipe and testing and inspection of welds. Students will be required to achieve a minimum score of 75% on American Welding Society (AWS) written tests except for the AWS safety test where a 95% test score is required.

E. **Academic Integrity:** It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.
Cheating: Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in an office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of course work. This applies to quizzes of whatever length as well as to final examinations, to daily reports and to term papers.
Plagiarism: Offering the work of another as one's own, without proper acknowledgement, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

F. **SCANS and Foundation Skills:**
Appropriate competencies and foundation skills set forth by the Secretary's Commission on Achieving Necessary Skills (SCANS) have been integrated into the Welding Technology program. For this course they are; C 1,3,5,6,7,12,13,14,15,16,17,19,20 and F 1,2,3,5,12,13,14,15,16.

II. SPECIFIC COURSE/INSTRUCTOR REQUIREMENTS:

A. **Textbook:** *Shielded Metal Arc Welding Pipe-Downhill*, Lab Manual, Hobart. This textbook and standard classroom supplies (notebook, pen, pencil, calculator, etc.) are required for this class. Students who do not bring these supplies to class will have points deducted from their assignment grade.

B. **Tools:** Students enrolled in this course are required to furnish their own personal tools. The instructor will provide the student with a list of the required tools. Students who do not bring these supplies to class will have points deducted from their assignment grade.

C. **South Plains College Attendance Policy**

Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus.

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the

student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

Absence for Military Service

In accordance with Texas Education Code Section 51.9111, a student is excused from attending classes or engaging in other required activities, including exams, if he or she is called to active military service of a reasonably brief duration. The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period of active military service." The student will be allowed a reasonable time after the absence to complete assignments and take exams.

Religious Holy Days

In accordance with Texas Education Code Section 51.911, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Dean of Students Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Texas Tax Code Section 11.20.

Pregnancy
If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Chris Straface, Director of Health and Wellness at 806-716-2362 or email cstraface@southplainscollege.edu for assistance.

D. The following attendance guidelines have been established for the Welding Technology program:

Excessive absences are a serious problem, and as a part of technical training good attendance habits are necessary. Positive steps will be taken in this program to develop these habits. The employer demands good work habits, and in order for the student to learn good work habits our attendance policy will require punctual and regular attendance.

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. The student must provide documentation for this type of an absence. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Unexcused absences cannot be made up.

1. **Absent** from class is defined as "not present and ready to participate during scheduled lecture or lab times."
2. **Tardy** is defined as "not present at the designated starting time of the lecture or lab." **Three tardies will equal one absence and will be treated the same as any absence**.
3. The student and the Retention Specialist will be notified when the student reaches one (1) unexcused absence. The Retention Specialist will notify the student that counseling assistance is available and the student will be advised that regular attendance is necessary for success in the program. When the student reaches three (3) unexcused absences in this class, he/she will be administratively dropped from the class.
4. Five (5) points will be deducted from the student's final grade for each absence.

E. **Assignment Policy:**
All required work must be in on time in order that the student may benefit from the corrections and study for future examinations. Assigned outside work is due ON THE CLASS PERIOD ASSIGNED; work turned in later than the due date will NOT be accepted unless the instructor clears the circumstance with the

student. Regardless of the circumstance, late work may be assessed penalty points (for grading purposes) by the instructor; this subject will be a matter of instructor discretion.

Testing Policy:

Students that are late for any scheduled test will automatically be assessed a 10 point penalty; students that are absent for a test will be assessed a 20 point penalty. Should a student be absent from any scheduled test, it is the responsibility of the student to reschedule the test within one week with the approval of the instructor.

Tutoring Policy:

Students who do not pass their first exam will be required to attend three hours of tutoring each week until they pass their next exam. This is a course requirement and will be reflected in the course grade.

F. **Grading Policy:**

4. Lecture: Written examinations, worksheets, homework, etc. will be graded on a percentage basis, with a grade of 70% being the minimum acceptable performance standard. The student must attain a score of 70% in order to progress to next unit of study. Students will be required to achieve a minimum score of 75% on American Welding Society (AWS) written tests except for the AWS safety test where a 100% test score is required.

1. Lab: All lab work will be graded on a 5, 4, 3, 2, 1 basis with 5 being the highest score and 1 being the lowest score. The student must attain a score of 3 in order to progress to the next competency. An explanation of this system is as follows:

   5 - Superior mastery of competency
   4 - Better than average mastery of competency
   3 - Minimum acceptable performance
   2 - Below average mastery of competency
   1 - Inadequate mastery of competency

2. Calculation of Final Grade: The student's final grade for the course will be calculated in the following manner;

   Lab grade = 80% of final grade
   Tests and assignments grade = 20% of final grade
   Tests = 80% of Tests and assignments grade
   Assignments = 20% of Tests and assignments grade

G. **Special Requirements:**

- Students shall dress properly for the work environment. (No shorts, sandals, tennis shoes, or baggie clothing).
- Students in the Welding Technology program will be required to follow all safety rules and procedures while in the Welding Technology facility.
- Students must complete a comprehensive welding safety orientation, score a minimum of 100% on a written welding shop safety examination, and

successfully complete a hands on practical shop safety test prior to continuing any other Welding Technology course requirements. Students will be given 3 attempts to successfully complete each.

- Students are required to wear eye and hearing protection at all times in the welding lab and other work areas.
- No cell phones or any other type of electronic communication device are allowed to be used in the classroom.
- All competencies in this and all other Welding Technology courses must be successfully completed for the student to be eligible for graduation. If a student does not complete all course competencies within a Welding Technology course, the student will receive a grade of "D" in that course. When the unfinished course competencies are completed the student's grade will be changed.
- Students must achieve a minimum letter grade of "C" in all Welding Technology courses leading to a certificate or degree.

III. COURSE OUTLINE

A. Shielded Metal Arc Welding Pipe (Downhill)
   1. Introduction to downhill pipe welding
   2. Safety and health of welders
   3. How to read and apply pipe welding procedures
   4. Weld quality, reading the puddle
   5. Pipeline construction
   6. Welding Codes and Standards

B. Shielded Metal Arc Welding Pipe (Downhill)
   1. Preparation an assembly of a pipe work piece
   2. Single v groove weld butt joint 5G downhill
   3. Single v groove weld butt joint 6G downhill
   4. Destructive testing

IV. The Welding Technology program at South Plains College is a Participating Organization in the American Welding Society's **SENSE** program. **SENSE**, which is an acronym for Schools Excelling through National Skill Standards Education - was originally published in 1995/96 to establish industry standards and guidelines for welder training. **SENSE** training and testing at South Plains College is done in accordance with AWS Specifications QC10 and QC11, and the Guide for the Training and Qualification of Welding Personnel, EG2.0 and EG3.0. **SENSE** testing consists of written tests, on-line tests, and workmanship qualification (hands-on) tests.

Students who successfully complete the Basic Welding Processes Certificate of Proficiency will have also successfully completed the requirements for the **AWS Level II – Advanced Welder** C**ertificate**. The $15.00 fee for this certificate is included in the Special Course Fee for WLDG 2435 - Advanced Layout and Fabrication. All students must participate in the AWS industry certification assessment.

V. DIVERSITY STATEMENT:

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

VI. ADA Statement

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

VII. Non-Discrimination Statement

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

VIII. Campus Concealed Statement

South Plains College permits the lawful carry of concealed handguns in accordance with Texas state law, and Texas Senate Bill 11. Individuals possessing a valid License to Carry permit, or the formerly issued Concealed Handgun License, may carry a concealed handgun at all campus locations except for the following.

- Natatorium

For a complete list of campus carry exclusions zones by event, please visit http://www.southplainscollege.edu/campuscarry.php