



Course Title: Pipe Welding I
Course #: WLD 105

Credit Hours: 3 Credits
Semester: Spring 2022
Cap: 15

Faculty: Christopher Storer
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Office: Trades Building

Office Phone: (505)387-7399

Office Hours (face-to-face or online): Monday 1PM-5PM, Tuesday & Thursday 1PM-5PM
Preferred Communication (email and/or text; will respond within 24 hours): Email or Text

Modality (face-to-face, hybrid, or online): Face-to-face
Class Location and Meeting Times (if face-to-face): Trades building: Wednesday 8AM-12PM
Meeting Hours and Online Hours (if hybrid): TBA

Required Materials: Safety glasses, Welding hood, Welding Gloves, Cutting Goggles, Protective Clothes & Work Boots, Earplugs

Students are required to have a laptop or tablet for class

Textbooks: *Pipe Welding* (1st edition), Larry Jeffus, Bryan Baker, ISBN 978-1-1336-9184-6

Tools: One-time issued to students @ \$500.00 +

Lab Fee (if applicable): Included in tuition

Mission, Vision, and Philosophy

Mission: Navajo Technical University honors Diné culture and language, while educating for the future.

Vision: Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

Philosophy: Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íína (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

Course Description

WLD-105 (3 credits)

Pipe Welding I

Students will acquire the knowledge to learn techniques for pipe fitting and pipe welding of joints using: SMAW, GMAW, GTAW, and FCAW, in the 2G welding position. They will also learn the set-up and adjustment of ARC and Oxy-Acetylene equipment. The welding safety procedures and terminology, skill development in laying weld beads with various patterns, position and processes. Perform 6010 electrodes root and 7018 electrodes fill and cap in 6G

(stationary 45 degree angle) positions. Perform TIG root and 7018 electrode fill and cap on 2G and 6G pipe position, known as a combo weld.

Course Outcomes	Course Assessments
A strong understanding of pipe measuring/cutting	Complete reading assignments, homework assignments, exams, projects, and quizzes.
A strong understanding of pipe welding/fabrication	
A strong understanding of types of rods used in the piping industries	
A strong understanding of modes of metal transfer.	
A strong understanding of modes of shielding/purge.	
A strong understanding of welding various procedures and its purpose	
A strong understanding of adjustment of ARC & Oxyacetylene equipment.	
A strong understanding of welding safety procedures and terminology.	
An ability to communicate	

Connections to Program Assessment (Course-Embedded Measures)

Course Activities

Week	Date	Class Topics/Reading Due	Assignments Due	Assessments
1				
		Last day to add/drop		
2				
3				
4				
5				
		Graduation Petition due		
			Midterm	
		Midterm grades due		
6				
7				
		Last day to withdraw with "W"		
8				
9				
10				
11				
12				
13				
14				
15				
16		Project Presentation		
17			Finals	

		Grades due to the Registrar		
		Graduation		

Grading Plan

Homework: 3%
 Class Participation: 25%
 Project(s): 5%
 Quizzes: 25%
 Mid-term: 20%
 Final Exam: 20%
 Portfolio: 2%

A = 100-90%
 B = 89-80%
 C = 79-70%
 D = 69-60%
 F = 59% or less

Grading Policy

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

Participation

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

Cell phone and headphone use

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

Attendance Policy

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

Misconduct

Harassment, intimidation, bribery, physical assault, or any other means, implied or explicit, to influence any member of a judicial body named in the Code, including witnesses, faculty members, staff members, and students before, during, or after a hearing. Organizations shall be responsible for the actions of their individual members, alumni, advisors, or others in this type of situation. Intoxication from, or the possession and/or consumption of, any alcoholic beverage or non-prescribed

controlled substance.

Study Time Outside of Class for Face-to-Face Courses

For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

Study Time for Hybrid or Blended Courses

For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

Study Time for Online Courses

For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.

Academic Integrity

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.**

Diné Philosophy of Education

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íina and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwí Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkyá hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwí core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumola:wa (honesty and trustworthiness), and hon kohoł lewuna:wedyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

Students with Disabilities

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<http://www.navajotech.edu/student-services#accommodations-services>) in accordance with the university's Disability Accommodations Policy (see http://www.navajotech.edu/images/about/policiesDocs/Disability_Exhibit-A_6-26-2018.pdf).

Email Address

Students are required to use NTU's email address for all communications with faculty and staff.

Final Exam Date: TBA