



NCTA WELDING

2026-2027

Instructors	Kris Barrea - 3rd Session SW	Nolan McNally - 1st Session Whatcom
Location	Sedro-Woolley High School	Whatcom - Meridian HS
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Course Hours	3 rd Session: 3pm-5:30pm, M-F	1 st Session: 8-10:30 M-F
CIP Code / Framework	CIP # 480508	
Website	https://www.nwtech.k12.wa.us	

DUAL CREDIT / ARTICULATION INFORMATION / BENEFITS

Institution	College Course & Number	Credits	Registration / Enrollment Process
Bellingham Technical College (BTC)	WLD 110 SMAW I	4	Registration through SERS https://www.ctesers.org
	WLD 120 GMAW I	4	

Dual-credit Eligibility: Students must earn a final grade of B (3.0) or higher in the courses required by the articulation agreement and complete applicable skills/competencies. Eligible students will receive registration instructions in class. Students are responsible for completing the online registration process within the communicated timeline; **credit cannot be awarded retroactively**. Earning dual credit is free and there is no cost for the student or family. More info about CTE Dual Credit available from BTC here: <https://www.btc.edu/FutureStudents/HighSchoolPrograms/CTEDualCredit.html>

Benefits: Earning CTE Dual Credit now can give you a head start by earning college credit while you're still in high school, potentially saving you time and money after graduation. For welding students, that credit can also help you build toward further welding education, apprenticeships, or a career in skilled manufacturing and the trades. Many credits can transfer between community colleges.

The following steps will be done in class with assistance from NCTA instructors:

YEARLONG COURSE CTE DUAL CREDIT TASKS & DEADLINES	
On or before October 30, 2026	Apply to WCC CTESERS
On or before January 7, 2027	Enroll in Dual Credit Class(es)

COURSE DESCRIPTION & LEARNING OUTCOMES

Course Description

Welding is an industry-based shop environment designed for the student who would like to develop a deeper understanding of metalworking as a foundation for continuing education or joining the job market. Students are trained in the basic skills of welding, cutting, shielded metal arc welding, gas metal and flux-cored arc welding, gas tungsten arc welding, and many other areas. Furthermore, this training includes blueprint reading, math, layout and fit-up, and fabrication through a wide variety of projects.

College Core / Course Learning Outcomes

- WLD 110 SMAW I: Students will learn applications of power sources, electrode identification, and basic steel metallurgy, while practicing lab techniques in the booth.
- WLD 120 GMAW I: Introduction to the Gas Metal Arc Welding, welding process for mild steel. Power sources, techniques, shielding gases, metallurgy, and electrode identification will be covered. The student will learn the application of this process through lab practice in the weld booth.

BOOKS, MATERIALS & COURSE RESOURCES

Resource / Material	Required?	Provided by	Notes / Link
Pen/Pencil	Yes	Student	
Spiral bound notebook with lined paper, or a ream of lined paper	Yes	Student	This will be used to take notes, work on assignments, create blueprint drawings
Daily Time Card	Yes	Instructor	
Welding Workbook	Yes	NCTA/Instructor	These are available for use during class time while working on assignments

EVALUATION & GRADING

NCTA courses use a grading system that measures technical skill development, employability habits, and academic learning. Grades are based on the work students complete, the skills they demonstrate, and the program's professional expectations.

Program Grading Categories

Occupational Education	Technical English	Math
Skills	60% Summative Assessment	60% Summative Assessment
Employability	40% Assignments	40% Assignments

NCTA Course Grade Scale

A	93% or above	C	73-77.9%
A-	90-92.9%	C-	70-72.9%
B+	88-89.9%	D+	68-69.9%
B	83-87.9%	D	60-67.9%
B-	80-82.9%	NC	59.9% and below
C+	78-79.9%		

CTE Dual Credit Minimum Grade & GPA Conversion

Students must earn a B or higher to earn CTE Dual Credit. The partner-college templates use the following percentage-to-GPA conversion:

Letter Grade	% of Points	GPA
A	94-100	4.0
A-	90-93	3.7
B+	87-89	3.3
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.3
C	73-76	2.0
C-	70-72	1.7
D+	67-69	1.3
D	65-66	1.0
F	0-64	0.0

MAJOR UNITS, ASSIGNMENTS & ASSESSMENTS

Unit	Assessment	Leadership	Other Information
Shop entrance safety test	Students will be assessed on shop safety rules and expectations		Students must get 100% on this test in order to weld and work in the shop
Oxy/Fuel and Plasma cutting	Skill evaluations		Student is required to demonstrate competency
SMAW	Multi joint weld tests		Shielded Metal Arc Welding (Stick)
GMAW	Multi joint weld tests		Gas Metal Arc Welding (Mig)

Unit	Assessment	Leadership	Other Information
FCAW	Multi joint weld tests		Flux-cored Arc Welding (Dual shield)
GTAW	Multi joint weld tests		Gas Tungsten Arc Welding (Tig) This unit is usually reserved for 2 nd year students or students that have shown high level competency in all other units
Guest Speakers			We will have guest speakers throughout our school year to go over industry expectations and job opportunities
Field Practicums		2 nd year students are lead role models during these events	Opportunities for field practicums throughout the school year

ATTENDANCE & PROFESSIONAL EXPECTATIONS

Attendance Policy

The Northwest Career & Technical Academy (NCTA) views attendance much like business and industry: students are considered professionals-in-training and are expected to attend each day fully to maximize learning and productivity. While occasional absences are inevitable, please prioritize regular attendance. Please see the student handbook. If a problem arises with health, food, transportation, housing, or any other barrier, please contact the school or district so that support can be provided.

Professional Expectations (Behavioral)

Students are expected to follow applicable laws and the behavior expectations of the school district, NCTA, and the specific program. NCTA students are professionals-in-training and are expected to demonstrate habits that prepare them for success in school and industry.

Communicative	Stay in touch, ask for help, and use professional language.
Motivated	Put in your best effort, participate, and meet deadlines.
Reliable	Attend regularly, be on time, and engage in all class activities.
Responsible	Keep spaces tidy, stay focused, and dress appropriately for the program.
Team Member	Work well with others, show a positive attitude, and follow procedures.
Trustworthy	Care for equipment, use technology appropriately, and act with integrity.
Feedback / Coachable	Receive feedback professionally and use it to improve performance.

Late Work Policy

Students may submit late work until the instructor's final deadline. Work submitted by that date will be graded for credit based on the assignment's quality and the program's standards. After the final deadline, assignments will not be accepted unless the instructor has approved an extension due to documented circumstances. Instructors will clearly communicate deadlines, including the final submission date. Students are responsible for checking timelines, staying on track, and reaching out for help when needed.

Industry/Course Specific Items

Safety / PPE Requirements	Students must wear the following personal protective equipment at all times in the shop: - Safety glasses and proper hearing protection - Footwear: Leather boots/closed toe shoes. Shoes cannot have mesh or synthetic materials. High-top boots are preferred for ankle coverage - Shirt: High cotton clothing such as long sleeve 100% cotton shirt/sweatshirt (program uniform). Welding jackets are available for use during class/shop time - Pants: Heavy duty long pants like denim jeans. No pants with tears, frays or rolled cuffs - No jewelry on hands or wrists in the shop. Jewelry should be stored safely in backpack or car. Necklaces should be removed or tucked in under your shirt during shop time
Field Practicums / Clinical / Worksite Learning Expectations	- Wear proper industry standard clothing - Stay professional by following NCTA professional expectations rubric
Technology / Device Expectations	- Cell phones should be kept in backpacks or cars. If your phone is needed on your person for emergency or medical reasons, your parent/guardian can contact me via email - Students will read and go over our Technology Appropriate Use Guidelines form
Communication / Help	kbarrea@nwtech.k12.wa.us nmcnally@nwtech.k12.wa.us
Additional Program-Specific Policies	- SAFETY IS THE NUMBER ONE PRIORITY IN THE SHOP - Repeated safety or rule violations may lead to your removal from the program

ACADEMIC INTEGRITY & GENERATIVE AI

Students are expected to submit only their own work and avoid cheating, plagiarism, fabrication, or other academic dishonesty. This includes submitting answers that are not your own on quizzes or exams, using unauthorized devices or materials, unauthorized communication during testing, or helping another person engage in academic dishonesty. Accidental or intentional use of another person's work, ideas, research, or writing without attribution may result in a failing grade on the assignment or, depending on the nature and extent of the violation, a failing grade in the course.

Generative AI tools (for example, ChatGPT, DALL-E, Gemini, or Claude) may be used to generate ideas and organize thoughts when permitted by the instructor, but they should not replace student work. Students are responsible for analyzing and fact-checking AI-generated results. AI use should be minimal, appropriate to the assignment, and cited when used. Using AI to replace student work, using it for the majority of an assignment without permission, or failing to cite AI use when required will be treated as plagiarism.

ACCESSIBILITY, SYLLABUS CHANGES & NONDISCRIMINATION

Accessibility

Participation, Teamwork, and Accessibility in the Shop

Learning to weld requires teamwork, independent focus and communication. In this class, you will work on solo builds, collaborate on group projects, and participate in regular group and class reading sessions. Because everyone learns and works differently, participation in this shop looks like many things: actively fabricating, helping a teammate, listening closely, or contributing to our reading discussions.

Your safety and success in this shop are my top priorities. If you ever feel that a project format, reading assignment, or shop environment creates a barrier to your learning or safety, please talk to me right away. Whether you have an official

accommodation plan (like an IEP or 504) or just need a different way to demonstrate what you know, I will work with you to ensure you can participate safely and fully.

More information on Accessibility: <https://mvhs.mountvernonschools.org/accessibility>

Changes to the Syllabus

I have attempted to make this syllabus as comprehensive and accurate as possible, and I may occasionally need to make small adjustments during the term. I will announce any changes in class or notify students in writing with an updated syllabus posted to the NCTA website.

CONDUCT AND EXPECTATION AGREEMENT

Student

I _____ (the student) verify that I have read and understand the syllabus associated with this document. I agree to uphold and maintain the professional expectations outlined in the syllabus and understand that my adherence to the policies and safety expectations are required for this class.

Signed _____ (student signature) _____ (date)

Parent/Guardian

As the parent/guardian of _____ (student)

I _____ (the parent/guardian) verify that I have read and understand the syllabus associated with this document. I also agree that the required materials and expectations for this class are reasonable, and understand that if I am unable to acquire any of the required materials for this class, it is my responsibility to contact the instructor so that reasonable accommodations can be arranged.

Signed _____ (parent/guardian signature) _____ (date)

If you do not have access to email services, please write down how you can be contacted below.