

Articulation Agreement

2017-2018

University Alaska Fairbanks

Interior Alaska Campus

4280 Geist Road

Fairbanks, Alaska 99709

Alaska Gateway School District

PO Box 226

Tok, Alaska 99780

Purpose:

In addition to the current Tech Prep Agreement between University of Alaska Fairbanks and Alaska Gateway School District, we have agreed to add the following course that is within CRCD Welding (WMT) program.

1. Alaska Gateway School District will follow a UAF WMT curriculum in coordination with the administration and faculty of the University of Alaska Fairbanks pertaining to the following courses on the course below.
2. Alaska Gateway School District will teach for the attached outcomes.
3. The attached syllabus will follow the learning outcomes of the university-approved course listed.

UAF Course Number	UAF Course Title	Number of UAF Credits	Alaska Gateway School District Course Title
WMT 105	Welding 2	3 credits	Welding 2

1. The attached syllabus will be followed.
2. Alaska Gateway School District will provide necessary support for students to be successful in this course which may include computer support, reference books and academic assistance.
3. Interior Alaska Campus will process the registrations.
4. In order to receive concurrent credit, the student will register for the Tech Prep class during the semester in which the competencies will be completed.

Approvals:

Arvid Weflen

Director of Aviation Programs

UAF Community and Technical
College

University of Alaska Fairbanks

DocuSigned by:

March 26, 2018
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Signature

Date

Bryan Uher

Interim Director

University of Alaska Fairbanks

Interior Alaska Campus

Fairbanks, Alaska

DocuSigned by:


March 26, 2018
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Signature Date

Scott MacManus

Asst. Superintendent

Alaska Gateway School District

Tok, Alaska

DocuSigned by:

April 24, 2018
A03F95D0651048D...
Signature Date

Mary Pete
Dean-College of Rural and
Community Development
P.O. Box 6500
University of Alaska Fairbanks
Fairbanks, AK 99775-6500

Michele Stalder
Dean-Community and Technical College
604 Barnette Street
University of Alaska Fairbanks
Fairbanks AK 99701

DocuSigned by:
Mary Pete March 28, 2018
647D69284D9248B...
Signature Date

DocuSigned by:
Michele Stalder March 28, 2018
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Signature Date

Susan Henrichs, Provost
P.O. Box 7580
University of Alaska Fairbanks
Fairbanks, AK 99775-7580

Susan Henrichs 5/7/18
Signature Date

WMT 105

Welding 2 Tech Prep Syllabus

COURSE INFORMATIONS

Course: Welding 2

Course #: WMT F105

Credits: 3

Prerequisites: Welding 1

Meeting Time: Monday through Friday 12:45 to 3:10 p.m. (Sept 18 thru May 24 (2017-18))

INSTRUCTOR INFORMATION

Instructor: Mr. Leland Monroe Certified Welding Educator

Certificate No. 0205002E

Location: Tok High School Vocational Education Lecture Rm

Telephone: 907-883-5161

E-Mail: lmonroe@agsd.us

leedonmonroe@hotmail.com

COURSE READINGS AND MATERIALS

Course Text Book: AWS Welding Volume 1 and 2.

Text Author: NCCER

Publisher: Prentice Hall

COURSE DESCRIPTION

Students will learn SMAW/GMAW welding techniques in horizontal, vertical, and overhead positions while welding with electrodes of various types. Students will complete 4 basic weld joints including the Tee Fillet single pass, Corner Joint, Butt Joint, Lap Joint single pass, and V-Groove joint with multi-pass. Students will be required to test in one or more of these joints through CWI inspections. Students will also be introduced to various grinders, plasma, and oxy-acetylene cutting equipment that will be used in future job related areas. Small projects will be used from time to time to reinforce the various welding and cutting concepts. Projects will require students to draw/read plans and understand the symbols used in the trade.

COURSE GOALS

Students will be able to use advanced welding and cutting concepts that will help to prepare them for potential employment opportunities in the construction, agriculture, aviation, petroleum, and mining trades. Students will gain a AWS position certification which lets the potential employer know that time has been spent, knowledge has been gained, and the interest is there for potential employee.

STUDENT LEARNING OUTCOMES

Students will be able to:

1. Demonstrate horizontal, vertical, and overhead welding techniques and procedures using the SMAW process
2. Work safely in the welding shop according to class rules, school and OSHA regulations
3. Describe correct welding procedures
4. Demonstrate GMAW welding
5. Demonstrate TIG welding
6. Determine the correct electrodes to use
7. Set welders according to metal, joint, and electrode being used
8. Demonstrate plasma and oxy-acetylene cutting procedures
9. Demonstrate proper use of the various power tools and hand tools used in the metal shop.
10. Demonstrate their knowledge in Drafting procedure and Welding Symbols

INSTRUCTIONAL METHODS

A variety of instructional methods will be used to help students understand the basic principles of welding and cutting. These methods include:

1. Instructor led lectures
2. Instructor led discussions
3. Assigned text readings and worksheets
4. Instructor demonstration
5. Students led discussions and demonstrations
6. Individual (independent) instruction
7. Instructional Videos
8. Field Trips

COURSE CALENDAR

Classes will start the third week of Sept and end the last week of May in each school year. (See Course Calendar)

Classes will run for approximately 2hr and 25 minutes each day for 5 days a week for 2 week periods. This will allow students to accumulate approximately 12 hours per week of instructional/Skill development time. Students will test at the end of the school year for 2 complete days with a Certified Welding Inspector. (Usually in mid May)

COURSE SUBJECT BREAKDOWN

Competency tests are given in each of these course areas

Welding Symbols
 Reading Welding Detail Drawing
 Project Planning
 Welding Safety Review
 SMAW Welding-Project/Certification Prep
 Horizontal, Vertical, Overhead welding using various joint fit up
 GMAW Welding
 TIG Welding
 Plasma Cutting
 Certification Test

Course Calendar for Welding 2 First/Second Semester 2017-18

Week of:

Sept 18	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Sept 25	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Oct 30	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Nov 6	MTWT	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5

	F	min)	days = 12 hrs 08 minutes
Dec 11	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Dec 18	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Feb 5	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Feb 12	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Mar 26	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Apr 2	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
May 14	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
May 21	MTWT F	12:45-3:10 (2 hrs 25 min)	2 hrs 25 min x 5 days = 12 hrs 08 minutes
Total hours	hrs		Total

Total first semester hrs: 72.48 hrs

Total second semester hrs: 72.48 hrs **Total Hours for Welding 2 course =144.96 hrs**

Course Subject Breakdown

General Shop Safety
hours

Plasma Cutting	8
hours	
Welding Symbols	6
hours	
Reading Welding Detail Drawings	6
hours	
Project Planning	6
hours	
GMAW Welding review	12
hours	
SMAW V-Groove Welding (no backing)	12
hours	
Shop Time GTAW, SMAW, Plasma Cutting	
60 hours <u>Certification Test</u>	
<u>15 hours</u>	
Total Hours for Welding 2 Course	145
hours	

Grading Breakdown

1. Shop Safety/Exercises 20%
2. Class/Shop Participation 60%
3. Test/Quiz 20%

A=90% to 100%

B=80% to 89%

C=70% to 79%

D=60% to 69%

F=59% and below