Articulation Agreement
2019-2020

University Alaska Fairbanks
Interior Alaska Campus
810 Draanjik
Fairbanks, Alaska 99709

Galena City School District
PO Box 299
Galena, Alaska 99741

Purpose:
In addition to the current Tech Prep Agreement between University of Alaska Fairbanks and Galena City School District, we have agreed to add the following course that is within UAF Welding Program:

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

<table>
<thead>
<tr>
<th>UAF Course Number</th>
<th>UAF Course Title</th>
<th>Number of UAF Credits</th>
<th>Galena City School District Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMT 103</td>
<td>Welding1</td>
<td>3 credits</td>
<td>Welding 1</td>
</tr>
</tbody>
</table>

1. The attached syllabus will be followed.
2. Galena City 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:

Anthony Simko  
Assistant Professor  
Welding and Materials Technology Department Chair  
Community and Technical College  
University of Alaska Fairbanks 

Signature  Date  

Bryan Uher  
Interim Director  
University of Alaska Fairbanks  
Interior Alaska Campus  
Fairbanks, Alaska 

Signature  Date  

Jim Merriner  
Superintendent  
Galena City School District  
Galena, Alaska 

Signature  Date
Kevin Illingworth  
Acting 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

Anupma Prakash,  
Provost and Executive Vice Chancellor  
P.O. Box 7580  
University of Alaska Fairbanks  
Fairbanks, AK 99775-7580
Term: Fall 2018 and Spring 2019
Course Title: Welding I
Dept. & Num.: WMT 103
Credits: 3
Prerequisites: none
Dates: Year Long
Days & times: Monday - Friday 9:00-10:20 and 1:55-3:15 on A Days
           Monday -Friday 9:00-10:20 on B Days
Location: Galena Interior Learning Academy
Instructor: David Wightman
Position: CTE Instructor
Phone: (907)-656-2053
Email: david.wightman@galenanet.com
Office hours: Monday-Friday 8:00am to 4:00pm

Text: Arc Welding - John Walker and Richard Polanin
      Oxyfuel Gas Welding - Bowditch and Bowditch
      Handouts supplied by instructor

Course Description: Students will learn SMAW welding techniques in the flat, vertical, horizontal and overhead positions using various electrodes. Students will complete basic weld joints in each position. Students will also be introduced to other equipment utilized in the metal fabrication industry.

Course Goals: Students will learn the fundamental welding and cutting skills necessary to prepare students for advanced welding classes and potential employment opportunities in construction, agriculture, mining, transportation, aviation, and petroleum fields in Alaska.

Skill expectations:
No previous welding class is required. The purpose of this course is to provide students with the fundamental welding skills necessary

Course Goals & Student Learning Outcomes:
  • Demonstrate flat, vertical, horizontal, and overhead arc welding techniques and procedures
  • Work safely in a shop according to school and OHSA regulations
  • Describe correct welding procedures
  • Demonstrate Flux Core and solid wire MIG welding procedures
  • Demonstrate oxy-acetylene welding/cutting techniques and procedures
  • Demonstrate flat, vertical, horizontal, and overhead position arc welds
  • Demonstrate proper electrode selection
  • Demonstrate proper welder adjustment based on metal and electrode being used
• Demonstrate proper use of the use the plasma cutter

**Instructional methods:**
A variety of instructional methods will be used to help students to understand the basic principles of welding and cutting. These include:
1. Teacher led whole class discussion
2. Assigned readings from course textbook
3. Teacher demonstrations
4. Student led discussion and exploration
5. Small group instruction

**Course Calendar**

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday through Friday</th>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday through Friday</td>
<td>Safety Demonstration and Tests</td>
<td>240 minutes – 240 classroom minutes</td>
</tr>
<tr>
<td>2</td>
<td>Monday through Friday</td>
<td>Safety Demonstration and Tests</td>
<td>160 minutes – 80 classroom minutes; 80 lab minutes</td>
</tr>
<tr>
<td>3</td>
<td>Monday through Friday</td>
<td>Arc/Oxy Demonstration and Safety Tests</td>
<td>240 minutes – 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>4</td>
<td>Monday through Friday</td>
<td>Arc/Oxy Student Set-up and Tool ID</td>
<td>160 minutes – 80 classroom minutes; 80 lab minutes</td>
</tr>
<tr>
<td>5</td>
<td>Monday through Friday</td>
<td>Arc/Oxy Student Set-up and Tool ID</td>
<td>240 minutes – 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>6</td>
<td>Monday through Friday</td>
<td>Measurement, symbols and blue prints</td>
<td>160 minutes – 80 classroom minutes; 80 lab minutes</td>
</tr>
<tr>
<td>7</td>
<td>Monday through Friday</td>
<td>Measurement, symbols and blue prints Arc = short beads Oxy = bead w/o rod and V weld</td>
<td>240 minutes – 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>8</td>
<td>Monday through Friday</td>
<td>Arc = short beads Oxy = bead w/o rod and V weld</td>
<td>160 minutes – 160 lab minutes</td>
</tr>
<tr>
<td>9</td>
<td>Monday through Friday</td>
<td>Arc = flat bead Oxy = flat bead w/ rod</td>
<td>240 minutes – 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>10</td>
<td>Monday through Friday</td>
<td>Arc = flat bead w/ start over</td>
<td>160 minutes – 160 lab minutes</td>
</tr>
<tr>
<td>Week</td>
<td>Day Range</td>
<td>Arc/Oxy Description</td>
<td>Classroom/Lab Time</td>
</tr>
<tr>
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</tr>
<tr>
<td>1</td>
<td>Monday through Friday</td>
<td>Pad/MIG Flux Core push/pull T</td>
<td>240 minutes - 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>2</td>
<td>Monday through Friday</td>
<td>Pad/MIG Flux Core push/pull T</td>
<td>160 minutes - 80 classroom minutes; 80 lab minutes</td>
</tr>
<tr>
<td>3</td>
<td>Monday through Friday</td>
<td>Weave/MIG Flux Core Up/Down T</td>
<td>240 minutes - 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>4</td>
<td>Monday through Friday</td>
<td>Weave/MIG Flux Core Up/Down T</td>
<td>160 minutes - 80 classroom minutes; 80 lab minutes</td>
</tr>
<tr>
<td>5</td>
<td>Monday through Friday</td>
<td>V. Up T MIG flux Core Pipe T</td>
<td>240 minutes - 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>6</td>
<td>Monday through Friday</td>
<td>V. Up T MIG flux Core Pipe T</td>
<td>160 minutes - 160 lab minutes</td>
</tr>
<tr>
<td>7</td>
<td>Monday through Friday</td>
<td>Overhead T Plasma Pattern Cut</td>
<td>240 minutes - 80 classroom minutes; 160 lab minutes</td>
</tr>
<tr>
<td>8</td>
<td>Monday through Friday</td>
<td>Overhead T Plasma Pattern Cut</td>
<td>160 minutes - 160 lab minutes</td>
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</tbody>
</table>

Total time first semester: 3200 minutes/53.3 hours
<table>
<thead>
<tr>
<th>Week</th>
<th>Monday through Friday</th>
<th>Task Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 9</strong></td>
<td></td>
<td>Arc = Horizontal Butt Calculating bills of Material</td>
<td>240 minutes - 80 lab minutes</td>
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<tr>
<td><strong>Week 10</strong></td>
<td></td>
<td>Arc = Horizontal Butt Calculating bills of Material</td>
<td>160 minutes - 80 classroom; 80 lab minutes</td>
</tr>
<tr>
<td><strong>Week 11</strong></td>
<td></td>
<td>MIG = Solid wire and shielding gas procedures</td>
<td>240 minutes - 80 classroom minutes; 160 lab minutes</td>
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<tr>
<td><strong>Week 12</strong></td>
<td></td>
<td>MIG = Solid wire and shielding gas procedures</td>
<td>160 minutes - 160 lab minutes</td>
</tr>
<tr>
<td><strong>Week 13</strong></td>
<td></td>
<td>MIG = Solid wire and shielding gas procedures</td>
<td>240 minutes - 80 lab minutes</td>
</tr>
<tr>
<td><strong>Week 14</strong></td>
<td></td>
<td>MIG = Solid wire and shielding gas procedures</td>
<td>160 minutes - 80 classroom; 80 lab minutes</td>
</tr>
<tr>
<td><strong>Week 15</strong></td>
<td></td>
<td>Project Fabrication Fabricate various welded projects (ie snowmobile stands, picnic table, camp grill, tank stands etc.) *students who have completed required welds</td>
<td>240 minutes - 240 lab minutes</td>
</tr>
<tr>
<td><strong>Week 16</strong></td>
<td></td>
<td>Project Fabrication Fabricate various welded projects (ie snowmobile stands, picnic table, camp grill, tank stands etc.) *students who have completed required welds</td>
<td>160 minutes - 160 lab minutes</td>
</tr>
<tr>
<td><strong>Week of 4-30-18</strong></td>
<td></td>
<td>Project Fabrication Fabricate various welded projects (ie snowmobile stands, picnic table, camp grill, tank stands etc.) *students who have completed required welds</td>
<td>240 minutes - 240 lab minutes</td>
</tr>
<tr>
<td><strong>Week 17</strong></td>
<td></td>
<td>Project Fabrication Fabricate various welded projects (ie snowmobile stands,</td>
<td>160 minutes - 160 lab minutes</td>
</tr>
<tr>
<td>Week 18</td>
<td>Monday through Friday</td>
<td>Project Fabrication</td>
<td>240 minutes - 240 lab minutes</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Fabricate various welded projects (ie snowmobile stands, picnic table, camp grill, tank stands etc.)</td>
<td>*students who have completed required welds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total time second semester</td>
<td>3680 minutes/61.3 hours</td>
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<tr>
<td></td>
<td></td>
<td>Total time for the year</td>
<td>6880 minutes/114.67 hours</td>
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</tbody>
</table>

**Course Subject Breakdown**

Competency tests are given in each of these course areas:
- Course safety testing - 30 hours
- Flat G1 Arc Welding - 40 hours
- GMAW Welding - 35 hours
- Plasma cutting - 10 hours
- Attendance, participation & professionalism: 40%

**Grading System:**
- Welds and assignments: 60%
- Attendance, participation & professionalism: 40%

**Evaluation:**
Students will be evaluated on their class participation, professionalism in their approach to learning, the quality of the welds submitted, and completion of all required assignments.

**Grading Scale:**
- A=100-90%
- B=89-80%
- C=79-70%
- D=69-60%
- F=59-0%

**Meeting Time:**
- Monday - Friday 9:00-10:20 and 1:55-3:15 on A Days
- Monday - Friday 9:00-10:20 on B Days

**Course Policies:**
Students will conduct themselves ethically, responsibly, and professionally, respecting the rights of others to learn in a least restrictive environment.

Students are expected to be in class each day.

Students are expected to be on time and prepared each day to begin class.

Students are expected to participate fully in class lectures, discussions, and student demonstrations. Each student must attempt and demonstrate mastery of all skills required for the class.

Students are expected to submit only work that is their own and to be sure to properly attribute any other material used to the appropriate source.

Support Services:

Galena Interior Learning Academy
PO Box 359 Galena, AK 99741
907-656-2053
www.galenaalaska.org

SHS CTE offers the following learning supports:

- Before school tutoring and supplementary instruction Monday-Friday 8:00-8:45am.
- Career counseling

Disability Services:

The Office of Disability Services implements the Americans with Disabilities Act (ADA) and ensures that GILA students have equal access to the campus and course materials. The instructor will work with the Office of Disabilities to provide reasonable accommodation to students with disabilities.

Student protection and services statement:

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to report it to the appropriate authorities. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook/