Great Falls College Montana State University
Welding Technology & Fabrication Program

Student Information and Application Packet
CAS (1 year) degree
Fall 2019
(Application is subject to change year to year)

Last Updated May 22, 2019 for Welding CAS Fall 2019 intake
Dear Prospective Welding Technology & Fabrication student,

I am pleased by your interest in the Welding Technology & Fabrication program at Great Falls College Montana State University. This is an exciting time for welders in our region. With an aging skilled workforce of which many will be retiring in the next few years we expect a high number of job openings for welding program graduates.

Our welding program is recognized by both the American Welding Society (AWS) and the Canadian Welding Bureau (CWB). The skills that you will have as a graduate of the Welding Technology & Fabrication program are highly valued by these industry standard organizations and also by employers. As a graduate, you will be prepared to produce welds in all positions that meet industry standards using the following processes:

Shielded Metal Arc Welding (SMAW)
Gas Metal Arc Welding (GMAW)
Flux Cored Arc Welding (FCAW)

During the time you will spend as a GFC MSU student, you will learn to interpret welding blueprints and weld symbols, understand power sources and current types, and gain other skills necessary for entry level welding jobs.

The Welding Technology & Fabrication program has a limited enrollment capacity. Twenty four new students are enrolled in each intake having access to a welding instructor and a welding coach. The small class size will be advantageous as a student, allowing you more individualized attention and more opportunity for hands-on experience. Students will be selected for the program on a first come, first served basis from the pool of completed applications received by the application priority deadline.

Information regarding the profession, the program, and application materials is enclosed in this packet. Please read the materials carefully. For additional information, answers to specific questions, or to set up an appointment, please contact Admissions at (406) 268-3700 or Joel Sims, Trades Division Director, (406) 268-3719.

Sincerely,

Joel Sims, CWI – CWE
Trades Division Director
Great Falls College Montana State University
2100 16th Ave S
Great Falls, MT 59405
(406)268-3719
Great Falls College Montana State University
Welding Technology & Fabrication
One-year Certificate of Applied Science (CAS) Program

Job Description and Occupational Outlook:

If you are looking for a one year education that will lead to a career in high demand, Welding Technology & Fabrication might be for you. Welders are typically employed in settings that have shift work, some overtime, and may require work indoors and outdoors. You will oversee welding tasks before, during, and after the process to make sure that a quality job is done. Typical job tasks include interpreting welding blueprints and weld symbols, preparing metal fabrication components and performing industry standard welds in all positions with a variety of processes (SMAW, GMAW, FCAW). If you have good concentration skills, good hand eye coordination, the ability to work unsupervised, and high standards of accuracy, this is the career for you.

According to the Montana Department of Labor, the 2018 hourly wage in Montana ranged from $16.11-$23.10. Great Falls area entry-level welders and fitters will start in the $15-17 per hour range with a full benefits package.

Welding Technology & Fabrication Curriculum Outcomes:

GRADUATES ARE PREPARED TO:

- The Welding and Fabrication program prepares students to set up, operate, and use critical thinking skills to trouble shoot a variety of welding equipment.
- The program prepares students to gain the craftsmanship skills, computational skills and problem solving techniques essential to the welding industry.
- Throughout the program, students will develop skills to make cuts using Oxy fuel cutting (OFC), Plasma arc cutting (PAC, and Carbon arc cutting (CAC-A) processes.
- Students will be able to meet safety requirements.
- Students will be able to produce welds in all positions that meet industry standards using the following process(es):
  - Gas Metal Arc Welding (GMAW)
  - Flux core Arc Welding (FCAW)
  - Shielded Metal Arc Welding (SMAW)
- Be introduced to Gas Metal Arc Welding (GTAW)
- Understand the use of measuring instruments and their purpose.
- Understand power sources and current types.
- Interpret welding blueprints and weld symbols.
- Develop basic fabrication skills.
- Utilize oral and written communication skills in the workplace, including terminology in the welding industry.
Welding Technology & Fabrication CAS Curriculum:

See the Great Falls College MSU Catalog for specific information on the Welding Technology & Fabrication Program:  http://catalog.gfcmusu.edu/academic-programs/welding-technology/

This program follows the National Center for Construction Education and Research (NCCER) curriculum.

WELDING TECHNOLOGY & FABRICATION PROGRAM REQUIREMENTS CAS

(Students who complete the first semester are eligible for the Welding & Fabrication Tier I Certificate of Technical Studies).

<table>
<thead>
<tr>
<th>First Semester Course Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td></td>
</tr>
<tr>
<td>WLDG 100 Intro to Welding Fundamentals +</td>
<td>3</td>
</tr>
<tr>
<td>WLDG 110 Welding Theory I +</td>
<td>2</td>
</tr>
<tr>
<td>WLDG 117 Blueprint Rdng – Welding Symbs +</td>
<td>2</td>
</tr>
<tr>
<td>WLDG 111 Welding Theory I Practical +</td>
<td>4</td>
</tr>
<tr>
<td>WLDG 145- Fabrication Basics +</td>
<td>2</td>
</tr>
<tr>
<td>M191B Special Topics: Math for Welders **, +</td>
<td>3</td>
</tr>
<tr>
<td><strong>First Semester total:</strong></td>
<td>16</td>
</tr>
<tr>
<td>Welding Technology &amp; Fabrication Tier I CTS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester Course Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRING</td>
</tr>
<tr>
<td>COMX 102 Interpersonal Skills in Workplace +</td>
</tr>
<tr>
<td>WLDG 120 Welding Theory II *,+</td>
</tr>
<tr>
<td>WLDG 121 Welding Theory II Practical *,+</td>
</tr>
<tr>
<td>WLDG 205 Applied Metallurgy *,+</td>
</tr>
<tr>
<td>WLDG 185 Weld Qualification Tst Prep *,+</td>
</tr>
<tr>
<td>WLDG 130 Intro to Structural Welding *,+</td>
</tr>
<tr>
<td>WLDG 209 Basic Pipe Welding *,+</td>
</tr>
<tr>
<td>WRIT 104 Workplace Communication, ***,+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester Total:</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welding Technology &amp; Fabrication CAS Total</td>
<td>30</td>
</tr>
</tbody>
</table>

* Indicates prerequisites needed.

** Placement in course is determined by placement assessment.

+ A grade of C- or above is required for graduation.

Program Expenses:

Welding students should begin planning early for financial aid or other arrangements to meet their educational needs. Approximate program costs can be found in the current catalog. http://catalog.gfcmusu.edu/academic-programs/welding-technology/
Welding Technology & Fabrication Program Admissions Process

Admission to Great Falls College MSU:

Students must be admitted to the College prior to the submission of the Welding program application and be in good academic standing with the institution. Therefore, no applications will be reviewed until applicants have been admitted to GFC MSU.

Acceptance to GFC MSU requires a completed admissions application file, which may be obtained by visiting the campus, calling the College (406) 268-3700 or 1-800-446-2698, or applying online at http://admissions.gfcmsu.edu/apply.html

Admission to Great Falls College MSU Welding Technology & Fabrication Program:

The Welding Technology & Fabrication Program admissions committee will review completed application packets after May 10, 2019. Welding cohort courses are restricted entry courses. Only students who have been admitted into the program will be able to enter these courses.

Completed Welding Technology & Fabrication program application packets must be submitted to:

Welding Admissions Committee
Student Central
Great Falls College Montana State University
2100 16th Avenue South
Great Falls, MT 59405

Note: Applications will be date and time stamped as they are received. The first 24 completed applications, who meet the admissions criteria, will be accepted into the program. Only complete applications will be considered. See Application Packet & Check-off Sheet for specific requirements for program admission.

Priority Admissions:

Priority applicants will need to have the application to the committee by May 10, 2019. Notification of acceptance to the fall semester will be May 31, 2019 for priority applicants.

Applications received after the priority deadline of May 10, 2019 will be considered only if any of the 24 admission positions remain open. Again, the earliest date and time stamps on completed Welding Technology and Fabrication applications will determine admission for any of these remaining openings. No incomplete applications will be considered until they are completed.

Welding applications will not be accepted after August 19, 2019.
Equal Opportunity Policy:

Great Falls College MSU is committed to the provision of equal opportunity for education, employment, and participation in all College programs and activities without regard to race, color, religion, national origin, creed, service in the uniformed services (as defined in state and federal law), veteran status, gender, age, political ideas, marital or family status, physical or mental disability, genetic information, gender identity, gender expression, or sexual orientation.

The College's Equal Opportunity Officer is the Chief Student Affairs & Human Resources Officer, 2100 16th Avenue South, Great Falls, MT 59405. Telephone: 406-771-4300

Student Health Insurance:

Program students entering the Welding program are strongly advised to carry their own medical insurance. Health insurance is available through the college for students who do not have other health insurance. Students will be financially responsible for their health care if they become ill or are injured.

Student Health Insurance Option *(Subject to change)*

All GFC MSU students enrolled for 6 or more credits are required to have health insurance. For students without coverage, GFC MSU offers a program developed especially for students by Blue Cross/Blue Shield of Montana. This plan provides coverage for injuries and illnesses on or off campus. Please contact Student Central for more information. Please see [http://students.gfcmsu.edu/insurance.html](http://students.gfcmsu.edu/insurance.html) for more information.

Student Central
Great Falls College MSU
Phone: 406-771-4304

Information Regarding Transferable Courses:

Coursework taken at other educational institutions may be designated as equivalent courses for Great Falls College MSU. For a current listing of approved equivalent courses, visit the Transfer Guide under Student Information at: [https://atlas.montana.edu:9001/pls/gfagent/hwzkkxfer.p_selstate](https://atlas.montana.edu:9001/pls/gfagent/hwzkkxfer.p_selstate)

If you have additional questions about transferability of courses, send a written request for evaluation of your prior transcript to the Registrar at Great Falls College MSU. Please include appropriate course descriptions and official transcripts from former colleges with your request for evaluation.

All transfer work has to be from a regionally accredited institution.

Send official transcript to GFC MSU Registrar’s Office:

Registrar’s Office
Great Falls College MSU
2100 16th Ave S
Great Falls, MT 59405
406-771-5128
GREAT FALLS COLLEGE MSU - WELDING TECHNOLOGY & FABRICATION CAS PROGRAM

Fall 2019 INTAKE
APPLICATION PACKET COVER AND CHECK-OFF SHEET

Name ____________________________________________________________

Address __________________________________________________________________________

City __________________________ State ______ Zip Code ________________________

Telephone (Home) ___________________________ (Cell/Other) ______________________

E-Mail Address _______________________________________________________________

GFC MSU Student ID Number __________________________

Please rank your cohort preference (1 & 2):

____ Fall 2019/Spring 2020 Morning Cohort (7:30 am – 1:00 pm, AUG 26 – DEC 20 and JAN 13 – MAY 8)

____ Fall 2019/Spring 2020 Afternoon Cohort (11:00 am -5:00 pm, AUG 26 – DEC 20 and JAN 13 – MAY 8)

NOTE: Welding applications will not be accepted after August 19, 2019.

CHECK-OFF LIST

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete and submit your Welding Technology &amp; Fabrication Application Packet Cover &amp; Check-off sheet.</td>
</tr>
<tr>
<td>Personal information must be complete. (page 7-8)</td>
</tr>
</tbody>
</table>

Good Academic Standing.

1. All GFC MSU students must be in Good Academic Standing which means they are not on academic probation OR academic probation continued, OR academic suspension.

2. A student with Good Academic Standing has a cumulative GPA that is greater or equal to 2.0 at GFC MSU.

3. Good Academic Standing will be verified by the Registrar and any applicants, who are not in good academic standing will not be admitted to the program.

4. Currently enrolled students, who are not in Good Academic Standing at time of Welding application submission, will only be eligible for conditional admission if there are intake spots available after acceptance of applicants currently in Good Academic Standing.

5. Applicants are encouraged to check with the Registrar’s or Admissions Office to confirm that they are in Good Academic Standing.
All applicants must have a Complete Admissions File.  
A completed admissions file includes:  
1. Completed application to GFC MSU  
2. Payment of the $30 application fee (if applicable)  
3. Copies of high school/GED/HiSET transcripts or diplomas or equivalent  
4. Proof of MMR shots  
5. Completion of placement testing or submission of official college transcript(s) verifying placement.  

Complete admissions files will be verified by the Registrar’s Office and applicants with incomplete admissions files will not be admitted to the program. Students are encouraged to check with the Admissions Office to confirm that their admissions file is complete.  

Submit a math placement test score or Official College Transcript(s) that shows completion of Math 065 or higher level math. Applicants must have either completed M065, Pre-Algebra, or have a math placement score that places them in M065, Pre-Algebra, or a higher level math course.  

Sign and submit the Technical Standards (page 8-9)  

Note: Turn all application materials in at one time so as not to risk misplacement of any items. Incomplete welding applications will not be reviewed.  

Great Falls College MSU Welding Technology & Fabrication Program Technical Standards  

The Welding Technology & Fabrication Program is a popular program. Therefore, it is important that all students who start the program are serious about completing it and are aware of program expectations. The welding program is operated much like a production welding lab in industry. This is your job, breaks will be scheduled, attendance is required and you are expected to be productive during classroom and lab sessions. Students are exposed to and will need to be comfortable in an industrial work setting.  

During the course of the program student will be required to work for prolonged periods while exposed to:  

<table>
<thead>
<tr>
<th>Extreme noise</th>
<th>Extreme heat</th>
<th>Sharp tools and materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical equipment</td>
<td>Hot metal and flying sparks</td>
<td>Dust and fumes</td>
</tr>
<tr>
<td>Machinery with moving parts</td>
<td>Slippery or uneven surfaces</td>
<td></td>
</tr>
</tbody>
</table>

While in this environment students will need to demonstrate specific technical functions, with or without reasonable accommodation, students must also demonstrate their competency in carrying out these tasks in a safe and effective manner. To successfully complete the Welding program student will be required to:  

- Follow safety procedures and safely operate necessary tools, equipment, and machinery.  
- Perform a variety of tasks at varying heights requiring physical agility.  
- Perform procedures according to proper specifications.  
- Conduct destructive tests of welding work.  
- Lift and transport equipment and materials.
• Take precise measurements of 1/16\(^{th}\) of an inch and do conversions.
• Distinguish indicators of poor vs. quality construction and detect fabrication problems.
• Identify names and uses of tools and machines, survey and select appropriate materials, tools, and equipment for welding work.
• Understand/interpret information from textbooks, handouts, diagrams, charts, and tables.
• Recognize welding terminology and symbols & effectively interpret blueprints and sketches.
• Distinguish shapes, forms, and patterns, including three-dimensional objects.
• Calculate slopes, circumferences, and decimal equivalents.
• Effectively respond to and communicate information from a variety of sources.

I understand that I will be expected to demonstrate competency in the technical standards stated above in order to successfully complete the Welding program. I also understand that I will be learning in a work environment setting exposed to hazards and will conduct myself in a safe manner.

___________________________________  ___________________________________________
Name (print)                                                                                         GFC MSU Student ID number

___________________________________  _________________
Signature                                                                                          Date