Great Falls College Montana State University
Welding Technology & Fabrication Program

Student Information and Application Packet

AAS Degree
Fall 2020

(Application is subject to change year to year)
Dear Prospective Welding Technology & Fabrication AAS student,

I am pleased by your interest to continue in the Welding Technology & Fabrication AAS program at Great Falls College Montana State University. The Associate of Applied Science degree will expand your knowledge and skill for the welding industry and open some new possibilities of possible supervision duties within the industry.

Our welding program is recognized by 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 better 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)

The AAS degree is designed to build on the skill and knowledge gained while completing the CAS program. Students will spend a greater amount of time working with and interpreting welding blueprints and weld symbols, while building fabrication skills on a variety of metals.

The Welding Technology & Fabrication program has a limited enrollment capacity. Twelve students are enrolled in each intake which provides for a small class size. As a student, this is advantageous to you as it allows more individualized attention and more opportunity for hands-on experience. Students will be selected for the program on a first-come, first-served and points based system. The points are generated for prior educational experience and work experience.

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
Job Description and Occupational Outlook:

If you are looking for a two-year education that will lead to a career, 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). Other tasks related to the welding industry, (i.e., cleaning, material handling, etc.), may also be part of your daily duties. 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 AAS Curriculum Outcomes: (currently under review)

GRADUATES ARE PREPARED TO:

• Learn to set up and weld aluminum using spool guns in all positions on plate of various thicknesses including groove, fillet and spot welds
• Weld aluminum plate using TIG process in all positions and various thicknesses including groove, fillet and spot welds
• Learn the benefits of PULSE ARC technology and how it effects the weld, base metal and the welder
• Learn to weld aluminum using spot gun Pulse in all positions on plate of various thicknesses including groove, fillet and spot welds
• Learn how to troubleshoot and fix problems with machines, spools guns, TIG torches and assemblies, base metal conditions and shielding gasses
• Demonstrate the ability to take general arrangements blueprints and break them down into shop drawings.
• Include weld symbols into shop drawings
• Demonstrate machine set-up for the successful welding of aluminum, stainless steel, and carbon steel
• Demonstrate machine tool set-up operation...press brake, Shear, various welding machines, for the successful forming and welding of metals
• Demonstrate the ability to plan, design and construct a project to industry standards
• For graphic design and documentation, AutoCAD will be used
• Demonstrate fillet and groove welding to American Welding Society standards
• Properly dimension and detail shop drawings.
• Use Computer Aided Design software to:
- Draw and edit a 2D object
- Annotate a drawing
- Plot and scale drawings

- Will be exposed to:
  - Pipe groove joints
  - Pipe layout tools
  - Metal Identification
  - Braze and weld cast iron

- Produce welds in all positions that meet industry standards using the following process(es) with 3”-6” scheduled 40 pipe:
  - GTAW
  - SMAW
  - GMAW
  - FCAW

**Welding Technology & Fabrication AAS Curriculum:**

The AAS degree is comprised of 62 total credits. Please see the Great Falls College MSU Catalog for specific information and curriculum lay out of the program: [http://catalog.gfcmsu.edu/academic-programs/welding-technology-aas/](http://catalog.gfcmsu.edu/academic-programs/welding-technology-aas/)

Students entering into the Welding technology & Fabrication AAS program are required to complete the Welding Technology & Fabrication CAS curriculum first. Please visit the website for information on the Welding Technology & Fabrication CAS program and curriculum: [http://catalog.gfcmsu.edu/academic-programs/welding-technology/](http://catalog.gfcmsu.edu/academic-programs/welding-technology/)

**Program Expenses:**

Welding students should begin planning early for financial aid or other arrangements to meet their educational needs.

<table>
<thead>
<tr>
<th>Estimated Resident Program Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
</tr>
<tr>
<td>Application Fee</td>
</tr>
<tr>
<td>Program Fees</td>
</tr>
<tr>
<td>Tools/clothing</td>
</tr>
<tr>
<td>Books/Supplies</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

**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](http://admissions.gfcmsu.edu/apply.html)
Admission to Great Falls College MSU Welding Technology & Fabrication AAS Program:

The Welding Technology & Fabrication AAS Program admissions committee will review completed application packets after May 8, 2020. 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 12 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 8, 2020. Notification of acceptance to the Fall semester will be May 29, 2020 for priority applicants.

Applications received after the priority deadline of May 8th will be considered only if any of the 12 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 7, 2020.**

Student Health Insurance:

Program students entering the Welding program are strongly advised to carry their own medical insurance. Students will be financially responsible for their health care if they become ill or 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
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: 406-771-4304

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/hwzkxxfer_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
406-771-4312
WELDING TECHNOLOGY & FABRICATION AAS PROGRAM

Fall 2020 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 REVIEW TIMES for the AAS:

In the Fall of 2020, the AAS program will be in the morning from 7:00 am to 12:00 pm, AUG 24 – DEC 18. With one exception, the DDSN 114 will be from 6:00 pm to 8:30 pm, OCT 26 – DEC 18.

In the Spring of 2021, the AAS program will be in the morning and will run from 7:00 am to 12:00 pm. Exact semester dates are TBD.

Program Admissions Process:

The Welding Admissions Committee reviews application packets and uses established admissions criteria to rank applicants for admission. The Application Evaluation form used by the committee is enclosed. Criteria for selection emphasize academic performance in prerequisite courses, previous education, and welding work experience.

Current students enrolled in the Welding Technology & Fabrication CAS program may apply during the spring semester before the fall program intake. They can apply before finishing their prerequisites and may be considered for conditional acceptance if space is available. Final determination will be made after satisfactory completion of the prerequisite courses.

NOTE: Welding applications will not be accepted after August 7, 2020.
APPLICATION EVALUATION FORM
ASSOCIATE OF APPLIED SCIENCE WELDING TECHNOLOGY AND FABRICATION PROGRAM
GREAT FALLS COLLEGE MSU

Please Complete

Applicant Name: ___________________________ GFC MSU Student ID: _______________________

Application Scoring:

Eligibility Assessment: (Place “Y” in blank to indicate requirement has been met)

* Admitted to Great Falls College MSU and admissions file complete
* In good academic standing
* Each Prerequisite course (CAS courses) completed with minimum grade of “C-” or higher

Admissions Criteria Score:

A. Performance in Prerequisite Courses
   Cumulative GPA at GFC MSU @ time of application ______________ x 2 = ______________
   Cumulative GPA at other institutions ______________ x 1 = ______________
   Certificate of Applied Science in Welding _______________________________________
   (add 5 points) = ______________
   List which college and where
   Verification required – official transcript with degree posted must be on file with Registrar

B. Other Training
   (Proof of qualifications are required to receive points – please provide copies)
   OSHA 10 Class (Provide copy) ______________ add 2 = ______________
   OSHA Construction class (Provide copy) ______________ add 3 = ______________

C. Welding Qualifications (list all and provide proof of each to receive points)

☐ SMAW  ☐ FCAW  ☐ GMAW  ☐ GTAW
☐ Limited  ☐ Limited  ☐ Limited  ☐ Limited
☐ Unlimited  ☐ Unlimited  ☐ Unlimited  ☐ Unlimited

Add 2 for each process __________

D. Year of Work Experience in Welding Field
   Verification required (See attached form)

<table>
<thead>
<tr>
<th>Years of Work Experience in Welding Field</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>1</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>2</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>3</td>
</tr>
</tbody>
</table>

Total for years’ experience Score = __________

☑ In case of a tie, date received will be used as a tie breaker.
☑ If still tied, then GFC MSU Cumulative GPA will be used.

TOTAL POINTS: ______________

Last Updated June 15, 2020 for Fall 2020 Welding AAS intake
The Welding Technology & Fabrication AAS Program is a popular program at GFC MSU. 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:

- Extreme noise
- Extreme heat
- Sharp tools and materials
- Electrical equipment
- Hot metal and flying sparks
- Dust and fumes
- Machinery with moving parts
- Slippery or uneven surfaces

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:

- Interpret and follow safety procedures and safely operate necessary tools, equipment, and machinery.
- Perform a variety of tasks requiring physical agility sometimes at varying heights and varying positions.
- Read and interpret job specifications then perform procedures accordingly.
- Perform destructive testing of welds per applicable code.
- Lift and transport equipment and materials up to 100 pounds.
- Effectively read and interpret measuring devices to make precise measurements of 1/16\textsuperscript{th} of an inch and do conversions to decimal equivalents.
- 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 in oral and written form from a variety of sources with peers, faculty, and staff.
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

CHECK-OFF LIST

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Complete and submit your Welding Technology &amp; Fabrication AAS Application Packet Cover &amp; Check-off sheet. Personal information must be complete. (page 8-10)</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 and be ready for registration.**

A completed admissions file and ready for registration 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 and ready for registration status will be verified by the Registrar’s Office and applicants not meeting criteria will not be admitted to the program. Students are encouraged to check with the Admissions Office to confirm that their admissions file is complete and they are ready for registration.

**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 10-11)**

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.
WELDING PROGRAM VERIFICATION OF WORK EXPERIENCE in Welding field
For
Great Falls College Montana State University
2100 16th Ave S
Great Falls, MT 59405

Applicants please make copies of this form if you have been employed at multiple sites.

_______________________________________________________ was employed __________________________________
(PRINT) Last Name, First, Middle Initial Business name

From ________________ to _________________ working an average of _____ hours per week.
Month/day/year Month/day/year

Total hours of Occupational Experience: ____ JOB TITLE_______________________________

COMMENTS/DESCRIPTION OF DUTIES:

__________________________________________________________________________

_____________________________ Date
Signature of Employer/Supervisor/HR Representative

_____________________________
Name of Employer (Please Print)

_____________________________
Mailing Address (Street Address, P.O. Box)

_____________________________
City, State, Zip Code

OFFICE USE ONLY
TYPE: _________________________ AMOUNT: ________________________________
REVIEWED BY: ______________________ DATE: _____________________