

# Great Falls College Montana State University Welding Technology & Fabrication Program



## Student Information and Application Packet CAS (1 year) degree Fall 2018

*(Application is subject to change year to year)*



**GREAT FALLS  
COLLEGE**

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**MONTANA STATE  
UNIVERSITY**

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 to you 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 2016 hourly wage ranged from \$12.88-29.85. Great Falls area employers tell us that their entry-level welders and fitters will start in the \$13-15 per hour range with a full benefits package.

**Welding Technology & Fabrication Curriculum Outcomes:**

**GRADUATES ARE PREPARED TO:**

- Meet safety requirements.
- Produce welds in all positions that meet industry standards using the following process(es):
  - Shielded Metal Arc Welding (SMAW)
  - Flux Cored Arc Welding (FCAW)
- Exposed to:
  - Gas Metal Arc Welding (GMAW)
  - Gas Tungsten Arc Welding (GTAW)
- Make cuts that meet industry standards in the following process(es):
  - Oxy-Fuel Cutting (OFC)
  - Plasma Arc Cutting (PAC)
  - Air Carbon Arc Cutting (CAC-C)
- Understand the use of measuring instruments and their purpose.
- Understand power sources and current types.
- Interpret welding blueprints and weld symbols.
- Utilize basic welding metallurgy.
- Utilize oral and written communication skills in the workplace, including terminology in the welding industry.

## Welding Technology & Fabrication Curriculum:

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

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

### GFC MSU Additional Graduation Requirement

Course	Title	Credits	Grade/Sem
COLS 103	Becoming a Successful Student +	1	_____

Fall	Credits	Grade/Sem
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First Semester - After Formal Acceptance

(Students who complete the first semester of courses are eligible for the Welding & Fabrication Tier 1 Certificate of Technical Studies degree)

M 191B	Special Topics: Math for Weld **.+	3	_____
WLDG 110	Welding Theory I +	3	_____
WLDG 111	Welding Theory I Practical +	6	_____
WLDG 117	Blueprint Rdnng Weldng Symbls +	2	_____
WLDG 145	Fabrication Basics +	2	_____

<b>Term Credits</b>	<b>16</b>
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Spring	Credits	Grade/Sem
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(Students who complete the second semester of courses are eligible for the Welding & Fabrication Tier 2 Certificate of Technical Studies degree.)

COMX 102	Interprsnl Skills in Workplace +	1	_____
WRIT 104	Workplace Communications +	2	_____
WLDG 120	Welding Theory II *.+	2	_____
WLDG 121	Welding Theory II Practical *.+	4	_____
WLDG 130	Intro to Structural Welding *.+	2	_____
WLDG 185	Welding Qualification Tst Prep *.+	4	_____
WLDG 205	Applied Metallurgy *.+	1	_____

<b>Term Credits</b>	<b>16</b>
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<b>Total Credits</b>	<b>32</b>
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\* Indicates prerequisites needed.

\*\* Placement in course(s) 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.gfcmsu.edu/academic-programs/welding-technology/>

## Estimated Resident Program Cost\*

### Welding Technology & Fabrication Certificate of Applied Science

Tuition and Fees	\$3,225
Application Fee	\$30
Program Fees	\$1,300
Tools/Clothing	varies
Books/Supplies	\$774
Total	\$5,359+

\* Fall 2017 MUS Student Health Insurance Premiums will be changing. Please check the [Health Insurance website](#) and/or Student Central for confirmed premium rates. Students will be charged an additional fee of \$21 per credit for online/hybrid courses.

## 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 4, 2018. 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 4, 2018. Notification of acceptance to the fall semester will be May 25, 2018 for priority applicants.

Applications received after the priority deadline of May 4<sup>th</sup> 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 17, 2018.**

## **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> 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: 406-771-4300

## 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/hwzkxfer.p\\_selstate](https://atlas.montana.edu:9001/pls/gfagent/hwzkxfer.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 16<sup>th</sup> Ave S  
Great Falls, MT 59405  
406-771-5128

# GREAT FALLS COLLEGE MSU - WELDING TECHNOLOGY & FABRICATION PROGRAM

## Fall 2018 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 2018 morning cohort (7:00 a.m. – 1:00 pm, AUG 27 – DEC 7 and JAN 9 – APR 26)

\_\_\_\_\_ Fall 2018 afternoon cohort (11:45 am -6:30 pm, AUG 27 – DEC 7 and JAN 9 – APR 26)

**Please note:** in order to facilitate processing applications, it will not be possible for students to change cohort choices after submitting this application.

To better help the welding instructors understand your educational goals please provide the following information:

1. Please circle how much welding experience you have.
  - a. None
  - b. Six months
  - c. One year
  - d. more than one year
  
2. How was your experience obtained?
  - a. High school classes
  - b. on the job
  - c. another college
  - d. \_\_\_\_\_
  
3. How would you rank your study skills (note taking, testing taking, and textbook reading)?
  - a. Poor
  - b. Fair
  - c. Good
  - d. Excellent
  
4. Why did you choose to learn about welding?
  
5. What is your career desire?



**CHECK-OFF LIST**

√	Item
	<p><b>Complete and submit your Welding Technology &amp; Fabrication Application Packet Cover &amp; Check-off sheet.</b>  <i>Personal information must be complete. (page 8)</i></p>
	<p><b>Good Academic Standing.</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. A student with Good Academic Standing has a cumulative GPA that is greater or equal to 2.0 at GFC MSU.</li> <li>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.</li> <li>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.</li> <li>5. Applicants are encouraged to check with the Registrar’s or Admissions Office to confirm that they are in Good Academic Standing.</li> </ol>
	<p><b>All applicants must have a Complete Admissions File.</b>            A completed admissions file includes:</p> <ol style="list-style-type: none"> <li>1. Completed application to GFC MSU</li> <li>2. Payment of the \$30 application fee (if applicable)</li> <li>3. Copies of high school/GED/HiSET transcripts or diplomas or equivalent. IF NOT GRADUATED yet, a copy of the 7<sup>th</sup> semester high school transcript, showing on track to graduate will need to be submitted.</li> <li>4. Proof of MMR shots</li> <li>5. Completion of placement testing or submission of official college transcript(s) verifying placement.</li> </ol> <p>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.</p>
	<p><b>Submit a math placement test score or Official College Transcript(s) that shows completion of Math 065 or higher level math.</b> 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.</p>
	<p><b>Sign and submit the <i>Technical Standards</i> (page 10-11)</b></p>

**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:

- 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:

- 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<sup>th</sup> 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