

# INDUSTRIAL METALS FABRICATION

**11-MONTH  
CERTIFICATE**

Apply your attention to detail and excellent visualization skills to today's machining and welding trades.

## Why should you choose a career in Industrial Metals Fabrication?

### **1** Heavy-hitting skills

This pre-employment program offers you the opportunity to explore two trades. You will be trained in the safe handling of a wide variety of machinery and hone your craftsmanship in machining, welding and metals fabrication.

### **3** Drill down

Get a solid grounding in theory before taking on the practical aspects of working on lathes, milling machines, drill presses, bandsaws and grinding machines. Learn and understand oxyacetylene, shielded metal, gas metal and gas tungsten arc welding and plasma cutting, as well as examining metal working and machine operation.

### **2** Craft your career

Once you graduate, you can start your career in industries such as farm machinery manufacturing, equipment manufacturing, custom manufacturing and repair, automotive manufacturing and rebuilding, mining, hydro, railways and aerospace. If you register as an apprentice within two years of completing the program, you may be granted in-school training credit for Level 1 Welder apprenticeship or Level 1 Machinist apprenticeship.

### **4** Choose your path

The full one-year certificate program includes both specializations. Or, focus on a single field of study: either the seven-month machining specialization or the four-month welding and fabrication specialization.

#### **FULL-TIME, ON-CAMPUS TIMELINE:**

**SEPTEMBER**  
Fall term begins

**JANUARY**  
Winter term begins

**JUNE**  
Work placement

**JUNE**  
Graduation

Program delivery options:



North Hill Campus

## CAREER OPPORTUNITIES

Graduates find employment in industries such as equipment manufacturing, custom manufacturing and repair, farm machinery manufacturing, hydro, mining, automotive manufacturing and rebuilding, railways, and aerospace.

## ADMISSION REQUIREMENTS

- » A complete Manitoba Grade 12 or equivalent
- » Consumer/Essential Mathematics 40S or equivalent with a minimum mark of 60%

English is the language of instruction at Assiniboine. All applicants educated outside of Canada or in a country not on the test exempt list are expected to meet the English language proficiency requirement. See [assiniboine.net/elp](http://assiniboine.net/elp) for more information.

## TECHNOLOGY REQUIREMENTS

Programs at Assiniboine have certain technology requirements. Students require access to computer devices at home and may be required to bring these on campus when instructed. Refer to [assiniboine.net/tech](http://assiniboine.net/tech) for more detailed information about the requirements for this program.

## UNIQUE LEARNING EXPERIENCES

- » Modern, well-equipped shops
- » Emphasis on practical, applied learning
- » Industry-based practicum
- » Exposure to 3D printing

## GRADUATION REQUIREMENTS

To graduate with an Industrial Metals Fabrication – Machining Specialization certificate, students must successfully complete 51 academic credits and 3 practical credits.

To graduate with an Industrial Metals Fabrication – Welding and Fabrication Specialization certificate, students must successfully complete 36.75 academic credits and 3 practical credits.

To graduate with an Industrial Metals Fabrication certificate (both specializations), students must successfully complete 86.25 academic credits and 3 practical credits. *Note: students only need to complete one work practicum to graduate with both specializations.*

The minimum passing grade for each course is indicated on the course outline.

## NEXT STEPS

Apply now! Visit [assiniboine.net/applynow](http://assiniboine.net/applynow). For more information on this program, visit [assiniboine.net/imf](http://assiniboine.net/imf).

## CONNECTIONS

Students who successfully complete the accredited program with an accumulative average of 70% or better in the trade subjects and level for which the program was accredited, gain employment and register as an apprentice within two years of graduating, will receive credit for Level 1 in-school technical training and 900 hours in the Machinist apprenticeship program.

Students who successfully complete the accredited program with an accumulative average of 70% or better in the trade subjects and level for which the program was accredited, gain employment and register as an apprentice within two years of graduating, will receive credit for Level 1 in-school technical training and 800 hours in the Welder apprenticeship program.

## PROGRAM FEES (DOMESTIC ONLY)

### Full Program

Tuition: **\$4,590** Course fees: **\$2,550**  
Students' Association fees: **\$540**  
Extracurricular costs: **\$480**  
Estimated textbooks, tools and supplies: **\$1,890**

### Machining Specialization

Tuition: **\$2,780** Course fees: **\$1,280**  
Students' Association fees: **\$420**  
Estimated textbooks, tools and supplies: **\$1,020**

### Welding and Fabrication Specialization

Tuition: **\$2,050** Course fees: **\$1,290**  
Students' Association fees: **\$380**  
Extracurricular costs: **\$480**  
Estimated textbooks, tools and supplies: **\$1,210**

*All fees are estimated and subject to change without notice. For international program pricing, if/when applicable, please visit [assiniboine.net](http://assiniboine.net).*

## COURSES 2021-22

NUMBER	COURSE TITLE	CREDITS
<b>MACHINING SPECIALIZATION</b>		
DRFT-0012	Blueprint Reading - INMF	3
COMP-0060	CAD/CAM Operations	6
COMP-0059	CNC Programming and Operation	9
METL-0001	Drilling Machines and Saws	3
METL-0002	Engine Lathe Operations	15
WRKP-0006	Machine Shop Practices	3
METL-0004	Metallurgy	1.5
METL-0003	Milling Machine Operations	9
<b>WELDING AND FABRICATION SPECIALIZATION</b>		
DRFT-0013	Blueprint Reading for Welders	2.25
WELD-0034	Hand and Power Tools	1.5
MATH-0101	Math for Welders	3
METL-0014	Metal Forming Machines	3
WRKP-0032	Orientation and Safety	4.5
WELD-0051	Oxyacetylene Principles - INMF	3
WELD-0050	Shielded Metal Arc Welding	10.5
WELD-0052	Wire Feed Processes	7.5
<b>BOTH SPECIALIZATIONS</b>		
PEDV-0345	College Foundations	0
COMM-0260	Communications	1.5
PRAC-0056	Practicum - INMF	3

*Note: Timelines, applicable industry experience, and teaching methodology will depend on program delivery choice; program information sheets subject to change without notice. Visit [assiniboine.net](http://assiniboine.net) for the most up-to-date information.*

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