



MEDICINE HAT
COLLEGE

TRAD 114

Introduction to Trades II - Carpentry & Welding

Fall 2025 - Dual Credit

DCMA

PETER KELLY

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Unofficial Course Outline – Not For
Distribution to Students

COURSE TIME(S)/ LOCATION(S)

LAB / TUTORIAL TIME(S)

TRAD 114 LB
(DBMA)
Friday
9:00AM-3:00PM
Room T129
Friday
9:00AM-3:00PM
Room T130

CALENDAR DESCRIPTION

Building on TRAD 100, this is an intermediate level course where students will focus their studies in two trades in the construction sector; Carpentry, and Welding. This course will provide an increased level of specialization, with exposure to more advanced topics in these trades. Hands-on shop time will be preceded by theory topics that will prepare the students for their upcoming shop class.

Hours: 82 (40-42)
Credits: 4.0
Pre-requisites: TRAD 100

Program Delivery may be subject to change due to health or other factors beyond MHC control

LEARNING RESOURCES

Purchase learning resources here: <https://bookstore.mhc.ab.ca/course-materials/textbook-search>

Personal Protective Equipment (PPE)

- Steel toe boots (with CSA sticker). Open toe, heel, or sole is not permitted.
- Safety glasses, or goggles.
- Puncture/cut resistant gloves.
- Coveralls OR 100% cotton long sleeve shirt and 100% cotton (denim) pants. No synthetic fibre blends.
- Welding Gloves

Tools/Supplies

- Imperial metric dual unit tape measure
- non-mechanical pencil

- Medicine Hat College Engineering graph paper note pad
- Pens/Pencils/Ruler
- Calculator

Optional (provided by MHC)

- Ear plugs.
- Welding helmet and beanie

COMPUTING AND ELECTRONICS - REQUIRED FOR ALL STUDENTS

- Cell phone or digital camera. Students must be able to take digital pictures of lab projects, tasks, and environments.
- Computer. Students must have access to a computer capable of running the Medicine Hat College Learning Management System (LMS), Blackboard.
- File and electronic data backup storage. Cloud storage for files. [preferred]. All students are provided a Google account that includes Google Drive and Gmail.

Headphones with microphone

- Headphones with microphone required.
- NOTE. Onboard microphones in laptops or desktop computers are not suitable.

Scanning - application or device

- Ability to scan to PDF is required. Android or Apple apps such as Adobe Scan are acceptable

Printing

- The ability to print hard copies is required. Printers and plotters are available on campus.
- If not on campus, then you must have access to a printer, or make use of a local service.

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COURSE OBJECTIVES / LEARNING OUTCOMES

General

1. Apply legislation, regulations and practices ensuring safe work.
2. Communicate using industry standard terms and units.
3. Use specialty hand and power tools and equipment common to the industry.
4. Identify materials, fasteners, tools, components, systems, and equipment commonly used in the industry.
5. Interpret technical drawings and diagrams.
6. Perform basic mathematical calculations common to the industry at an introductory level.

Carpentry

1. Use codes and standards that are common to the industry.
2. Use a variety solid and manufactured wood material, joinery and construction techniques.
3. Use a variety of fasteners, adhesives, and sealants.
4. Describe the ingredients, production, placing and curing of concrete.
5. Describe basic residential building construction components and systems at an introductory level.
6. Construct residential wood-frame systems such as walls, floors, and roofs.

Welding

1. Describe basic elements, components, and equipment and consumables required for wire and stick welding.
2. Describe and practice basic processes and techniques for wire and stick welding.
3. Identify and describe basic weld faults and their causes.
4. Identify joints and weld types.

DETAILED COURSE CONTENT, TOPICS AND SEQUENCING

Schedule

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Modules	Readings	Assessment
CARPENTRY MDOULE 1: <ul style="list-style-type: none"> • Power Tools in Carpentry 	Materials in Bb	Online Assignment(s), Quiz & On Campus Lab
CARPENTRY MDOULE 2: <ul style="list-style-type: none"> • Framing Basics 	Materials in Bb	Online Assignment(s), Quiz & On Campus Lab
CARPENTRY MDOULE 3: <ul style="list-style-type: none"> • Concrete Basics 	Materials in Bb	Online Assignment(s), Quiz & On Campus Lab
CARPENTRY MDOULE 4: <ul style="list-style-type: none"> • Wood Joinery & Adhesives 	Materials in Bb	Online Assignment(s), Quiz & On Campus Lab FINAL EXAM
WELDING MODULE 1: <ul style="list-style-type: none"> • 1A - Safety Legislation, Regulations, and Industry Policy in the Trades: 120101a • 1B - Wire Feed Welding Equipment and Consumables, Part A: 120103a-bA 	ILM in Bb	Online Quizzes & On Campus Lab
WELDING MODULE 2: <ul style="list-style-type: none"> • 2A - Wire Feed Welding Equipment and Consumables: Part B: ILM 120103a-bB • 2B - Wire Feed Welding Shielding Gases: 120103c 	ILM in Bb	Online Quizzes & On Campus Lab
WELDING MODULE 3: <ul style="list-style-type: none"> • 3A - Joint and Weld Types: 120102 • 3B - Weld Faults: 120102h 	ILM in Bb	Online Quizzes & On Campus Lab
WELDING MODULE 4: <ul style="list-style-type: none"> • 4A - FCAW and MCAW on Mild Steel, Objectives 1 & 2: 120103f • 4B - GMAW on Mild Steel, Objectives 1 & 2: 120103e 	ILM in Bb	Online Quizzes & On Campus Lab FINAL EXAM

INSTRUCTIONAL TECHNIQUES

A variety of learning methods will be employed during the course including:

- Lectures & multimedia resources
- Readings from textbook(s)
- Online resources such as webpages and videos
- Participation from students
- Shop/Lab activities

GRADE ASSESSMENT

Carpentry	
Quizzes/Tests/Assignments	15%
Labs	25%
Exam(s)	10%
Sub-total	50%

Welding	
Quizzes/Tests/Assignments	15%
Labs	25%
Exam(s)	10%
Sub-total	50%

Weighting may vary depending on student progress through course materials.

DATES OF MAJOR ASSESSMENTS

- Students should expect weekly theory quizzes, which must be completed successfully prior to participating in the corresponding lab.
- Students should expect to complete theory and/or shop tests at the end of each module/unit.
- Lab projects/task must be completed by the end of the corresponding lab time.
- A culminating exam should be expected at the end of each trade period. Exams may be written, practical (shop/lab), or a combination of the two.

FINAL EXAMS

There is no final exam set for this course by the Registrar's Office.

LATE ASSIGNMENTS/MISSED EXAM POLICY

All assessments must be completed by the assigned due date and time. If you fail to do so you will earn a grade of zero. Exemptions from this will be granted only for the reasons outlined below, as found in MHC Academic Calendar. Unless there are extenuating circumstances, notification must be made to the instructor prior to the due date/time.

- bereavement
- personal illness or injury
- religious observances*
- domestic affliction
- disability

* An assessment that is due on the date of a religious observance may be submitted early. Students will have received advance notice of this due date and should plan accordingly.

If you are a student with a disability and have been approved for accommodation through our Disabilities Services office, you must notify the instructor by email one week before the final exam if you want to use your accommodations. Failure to do this can result in the accommodation being denied.

ACADEMIC DISHONESTY

Plagiarism and cheating are serious offences and may be punished by failure on exam, paper or project, failure in course, and / or expulsion from the course.

COMMON GRADING SCHEME

Percent	Letter Grade	GPA
93-100	A+	4.0
86-92	A	4.0
80-85	A-	3.7
76-79	B+	3.3
72-75	B	3.0
68-71	B-	2.7
64-67	C+	2.3
60-63	C	2.0
56-59	C-	1.7
53-55	D+	1.3
50-52	D	1.0
0-49	F	0.0

ACCESSIBILITY STATEMENT

If you are a student that requires additional accommodation to support your learning and have been approved through our Accessibility Services office (Room B367), please contact your instructor prior to exams or any other forms of evaluation, if accommodation is desired.

MENTAL HEALTH STATEMENT

Medicine Hat College recognizes the importance of student mental health and wellbeing, and has many resources available for supporting students throughout their academic journey.

Services such as counselling, support groups, self-help modules dedicated to helping you manage things like anxiety, stress, depression, and relationships are accessible to students on the campus, as well as online. To connect with Mental Health and Counselling, visit the Student Advising Desk (across from Registration), by calling 403-529-3819. Information is also available online at <https://www.mhc.ab.ca/en/student-life/counselling-and-care>.

In addition, the Student at Risk Support Team (SARS) is here to respond to concerns around mental health and physical well-being, security and academic issues, offering additional intervention and connecting students with appropriate resources on campus at: <https://www.mhc.ab.ca/en/student-life/counselling-and-care/student-at-risk-support-team>.

STUDENT RESPONSIBILITIES

Attendance, Health & Safety

Due to the nature of a trades lab environment, health and safety of everyone present - students and instructors - is of utmost importance. Students must be aware of the following:

- If a student does not have the proper PPE in class, they may be asked to leave, and will receive a zero grade for the lab activity for that class.
- Attendance for the full duration of Shop/Labs is mandatory. Absence, late arrival, or early departure may result in not being permitted to participate in the rest of that lab class, or subsequent labs classes and is at the discretion of the instructor.
- Students are expected to adhere to all safe work practices and procedures. Failure to do so may result in the student being asked to leave, and will receive a zero grade for the lab activity for that class.
- Per Medicine Hat College Academic Calendar, there is zero tolerance for intoxication. Instructors have full discretion to remove from the lab or classroom any student they feel may be a hazard to themselves, the people around, the environment, or to the College tools/property; and the student will receive a zero grade for the lab activity for that class.

Communication

- All course material will be managed through Blackboard.

- Students are required to monitor their "@mymhc.ca" email accounts AND the "Announcements" section on Blackboard

Email

- Use of "@mymhc.ca" email address is required. Personal email addresses will not be used for correspondence with students.
- Use of proper subject line is required. Messages without a subject line will not be responded to.

Class Conduct

- Conduct yourself with consideration and respect for everyone you interact with. Disrespectful, unprofessional, or distracting behavior may result in being asked to leave the class.
- Use of social media, games, or other digital entertainment are not acceptable during class unless specified by the instructor.

Large Language Model (LLM)/ Generative Artificial Intelligence (Gen AI)

Unless the instructor says otherwise, do not use LLM/Gen AI tools or apps (such as ChatGPT, Midjourney, DALL-E, etc.) at any point and for any course assignments, evaluations, or assessments in this course. All work must be your own original work and follow the MHC Academic Integrity statement. Using unauthorized LLM/Gen AI tools or apps will be considered a violation of the MHC Academic Integrity statement.

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