

## DEPARTMENT OF TRANSPORTATION TRADES

### COURSE OUTLINE – FALL 2022, SEMESTER 1

AUGUST 29 – DECEMBER 16, 2022

### MCM 100 THEORY I – 8 CREDITS 160 HOURS

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

**INSTRUCTOR:** Darcy Hudak                      **PHONE:** 780.835.6747  
**OFFICE:** FM2 - 120                              **E-MAIL:** dhudak@nwpolytech.ca  
**OFFICE HOURS:** 8 AM to 4:30 PM

**CALENDAR DESCRIPTION:** Subjects include shop safety, hand tools, measuring tools, wheels and tires, brake system operation, frame and suspension operation, basic electricity and lighting systems, carburetion, two-stroke tuning, two-stroke top end rebuild, motorcycle assembly, PDI, storage procedures, final drive operation, inspection and maintenance, lubrication and cooling systems, safe use of oxyacetylene welding equipment, recognition and interpretation of motorcycle parts.

**PREREQUISITE(S)/COREQUISITE:** None

## REQUIRED TEXT/RESOURCE MATERIALS:

Alberta Apprenticeship and Industry Training Individual Learning Modules  
Shop Procedures Package:

090101aA	Communication – Part A
090101aB	Communication – Part B
090101b	Measuring Tools
090101c	Specialty Hand Tools
090101d	Fastening Devices
090101e	Safety
150101n	Hand Grinding Machines
150101o	Drilling Machines
190101f	Oxy-Fuel Equipment, Heating and Cutting

### Other Textbooks:

Modern Motorcycle Technology (text and workbook) Edward ABDO – Delmar

### Other Required Supplies:

- 3-ring binder(s) (3")
- loose leaf paper
- pencils
- eraser, etc.
- pens
- calculator (non-programmable CASIO fx-260)

Apprenticeship Prior Learning Assessment Fee: \$150 fee for assessment to write 1<sup>st</sup> Year  
Apprenticeship Exam in Fall, 2022 term.

**DELIVERY MODE(S):** Workshop projects; procedures; instructor led; hands on.

Note: NWP reserves the right to change the course delivery.

## COURSE OBJECTIVES:

The Pre-Employment Motorcycle Mechanic program has been developed to provide students with entry level skills in the motorcycle mechanic technologies and provide pre-apprenticeship opportunities for those who may be interested in pursuing apprenticeship.

### Motorcycle Mechanic Training Goal

#### I. PROFICIENT

- A. A thorough competence derived from training and practice (skilled).
1. COMPETENCE – having suitable or adequate ability.
  2. ABILITY – physical and/or mental power to perform.

Well advanced in an occupation or branch of knowledge.

#### II. OCCUPATION

- A. An activity serving as one's regular employment.

### III. PRACTICE

- A. To perform or work at repeatedly to become proficient (acquire skill).
  - 1. SKILL – specialized knowledge and ability.
- B. To do repeated exercises for proficiency.
- C. To pursue a profession actively.
  - 1. PROFESSION – occupation requiring advanced education.

➤ The goal of apprenticeship training is to develop a competent journeyman through a combination of on-the- job and technical training.

➤

#### LEARNING OUTCOMES:

**TRANSFERABILITY:** None.

#### EVALUATIONS:

Areas of Evaluation	Percentage of Total Course Mark
Weekly Tests	40%
Final Exam	45%
Assignment(s)	5%
Attendance	10%

#### Introduction to Oxyacetylene Welding (Safety)

As determined by Welding Department. Final mark included as a weekly test in MCM 100.

**GRADING CRITERIA:**

Students must complete all required courses with a grade point of 2.0 or higher; a percentage of 63% or higher; a “C” letter grade or higher, and no failing grades. A student must pass each course individually in order to receive a Certificate of Achievement in Pre-Employment Motorcycle Mechanic.

Absence for tests or assignment missed will result in a score of zero.

No supplemental tests and/or examinations available.

<b>NORTHWESTERN POLYTECHNIC</b>			
<b>GRADING CONVERSION CHART</b>			
<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>	<b>Designation</b>
<b>A<sup>+</sup></b>	<b>4.0</b>	<b>90 – 100</b>	<b>EXCELLENT</b>
<b>A</b>	<b>4.0</b>	<b>85 – 89</b>	
<b>A<sup>-</sup></b>	<b>3.7</b>	<b>80 – 84</b>	<b>FIRST CLASS STANDING</b>
<b>B<sup>+</sup></b>	<b>3.3</b>	<b>77 – 79</b>	
<b>B</b>	<b>3.0</b>	<b>73 – 76</b>	<b>GOOD</b>
<b>B<sup>-</sup></b>	<b>2.7</b>	<b>70 – 72</b>	
<b>C<sup>+</sup></b>	<b>2.3</b>	<b>67 – 69</b>	<b>SATISFACTORY</b>
<b>C</b>	<b>2.0</b>	<b>63 – 66</b>	
<b>C<sup>-</sup></b>	<b>0.0</b>	<b>60 – 62</b>	<b>FAIL</b>
<b>D<sup>+</sup></b>	<b>0.0</b>	<b>55 – 59</b>	
<b>D</b>	<b>0.0</b>	<b>50 – 54</b>	
<b>F</b>	<b>0.0</b>	<b>0 – 49</b>	
<b>WF</b>	<b>0.0</b>	<b>0</b>	<b>FAIL, withdrawal after the deadline</b>

## **COURSE SCHEDULE/TENTATIVE TIMELINE:**

### **MCM 100/150**

**16 Weeks**

**30.0 Hours Per Week**

**480 Hours**

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<b>Week 1</b>	Orientation, Safety and Tools
<b>Week 2</b>	Workshop Procedures and Liability
<b>Week 3</b>	Parts Introduction
<b>Week 4</b>	Tire Service
<b>Week 5</b>	Wheel Inspection and Maintenance
<b>Week 6</b>	Brake Inspection and Maintenance
<b>Week 7</b>	Final Drive Inspection and Maintenance
<b>Week 8</b>	Assembly, PDI and Storage
<b>Week 9</b>	Frame, Suspension and Steering Systems
<b>Week 10</b>	Basic Electricity
<b>Week 11</b>	Electric Circuits and Practical Testing
<b>Week 12</b>	Fuel System and Carburetor Inspection and Maintenance
<b>Week 13</b>	4-Stroke Theory and 2-Stroke Theory and Tune-up
<b>Week 14</b>	2-Stroke Top End Reconditioning
<b>Week 15</b>	Introduction to Oxyacetylene Welding (Safety) – TBA
<b>Week 16</b>	Review, Shop Wrap-Up and Final Exam

## STUDENT RESPONSIBILITIES:

Following the guidelines in “Student Rights and Responsibilities” in the NWP College calendar assist us all in maintaining an adult learning environment. Please refer to the Student Rights and Responsibilities policy in the Northwestern Polytechnic Calendar or at [www.nwpolytech.ca/downloads/documents/StudentRightsandResponsibilities.pdf](http://www.nwpolytech.ca/downloads/documents/StudentRightsandResponsibilities.pdf).

### PROFESSIONAL CONDUCT

Students are in a public facility and will be expected to act accordingly. This includes attitude towards others and refraining from use of offensive language. Everyone is entitled to experience a cordial environment. Remember, you are responsible for the attitude you bring to class every day!

NWP Fairview Campus property is public domain; therefore Alberta traffic rules and laws apply to all parking lots and roadways (enforced by R.C.M.P.).

### ***NWP TRAINING UNITS ARE NOT TO BE RIDDEN AT ANY TIME!***

Helmet usage is mandatory, and insurance and licensing requirements will be met by all students involved in operating powered vehicles.

### ATTENDANCE

Lack of regular attendance will have a bearing on student evaluation. Regular attendance and punctuality in all courses are mandatory. Failure to maintain the necessary level of attendance may result in the student being withdrawn from the program.

Certain unavoidable absences may be excused by the instructor(s). In such cases the student shall make every effort to inform the instructor(s) prior to an absence. If this is not possible the student shall at the earliest opportunity (next regularly scheduled class) provide a descriptive note explaining the absence. Failing to provide a note or acceptable explanation at the beginning of the next attended class will result in an unauthorized absence. Any missed information is the student’s responsibility!

Absence for tests or assignment missed will result in a score of zero.

### ***Absence reporting is solely the student’s responsibility!***

Based on a percentage of the total hours in a program involving unauthorized absences (i.e. MCM 100/150 = 480 hours).

1. 2.5% of total hours: Student will be given a verbal warning by the Instructor (12 hours) (to be recorded).
2. 3.75% of total hours: Student will be advised in writing by the Program Leader (18 hours) or designate.
3. 5.0% of total hours: Student may be withdrawn from the program! (24 hours)

## **STATEMENT ON PLAGIARISM AND CHEATING:**

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the Northwestern Polytechnic Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the Student Rights and Responsibilities policy which can be found at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

\*\*Note: all Academic and Administrative policies are available on the same page.

## **Additional Information (Optional):**