



DEPARTMENT OF MOTORCYCLE AND RECREATIONAL POWERSPORTS

COURSE OUTLINE – FALL 2014, SEMESTER 1

SEPTEMBER 2 – DECEMBER 19, 2014

MCM 150 SHOP I – 7 CREDITS 320 HOURS

INSTRUCTOR: Dan Bruce **PHONE:** 780.835.6740 Press 1
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Monday through Friday.

OFFICE HOURS: 8:00 – 5:00 p.m.

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:

- pencils
- pens
- 3-ring binder (1")
- notepad (for Shop use)
- shop towels
- welding beanie (MANDATORY)
- rubber gloves (MANDATORY)
- safety glasses (MANDATORY)
- welding gloves (MANDATORY)
- metal for shop projects
- permanent black felt pen (Sharpie)
- clipboard (MANDATORY for Skill/Task Sheets)
- Skill/Task Sheets (provided by Instructor)
- smock/coverall (local supplier, MANDATORY)
- steel toe footwear (CSA approved – highly recommended!)

Note: This list has been prepared for safe participation in a workshop environment.
It is a minimum guideline only.
Hearing protection will be available to students as required (from the tool room).

CALENDAR DESCRIPTION: Subjects covered in Shop I include: shop orientation and safety, hand tools, measuring and machine tools, wheels and tires, brake systems, frame and suspensions, basic electricity, lighting systems, carburetion, two-stroke tuning, two-stroke top end rebuild, motorcycle uncrating and assembly, storage procedures, lubrication and cooling systems.

Delivery Option – Fairview Campus Only

CREDIT/CONTACT HOURS: 7 credits; 20 hours per week; 16 weeks; 320 hours.

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

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.
- B. 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.

TRANSFERABILITY: None.

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.

A grade of less than 45% on a practical exam will result in an opportunity to retest at a mutually agreed time, within the original deadline. A 20% reduction will apply to all retests.

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

EVALUATIONS:

Areas of Evaluation	Percentage of Total Course Mark
Practical Tests	40%
Quality of Work	20%
Productivity	10%
Attitude Towards Daily Work	5%
Ability to Follow Instructions	5%
Daily Clean Up	5%
Professionalism	5%
Attendance	10%

STUDENT RESPONSIBILITIES:

Please refer to the Student Rights and Responsibilities policy in the Grande Prairie Regional College Calendar or at www.gprc.ab.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!

GPRC 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.).

GPRC 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 is 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:

ACADEMIC DISHONESTY

Dishonesty by students will not be tolerated. Any academic dishonesty will result in a score of zero on that test, assignment or lab. Subsequent activity of this nature may be dealt with in a harsher manner. (Subject to Student Conduct Guidelines.)

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/. These are serious issues and will be dealt with severely.

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

- ***Every effort has been made to ensure the accuracy and completeness of this outline. The instructors will advise students of any necessary changes to the course.***

COURSE SCHEDULE/TENTATIVE TIMELINE:

MCM 100/150

16 Weeks

30.0 Hours Per Week

480 Hours

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

SKILL/TASK LIST – SESSION 1

01.	Metal Projects	26.	2-Stroke Compression Test (2 models)
02.	Change Tire (Hand Levers)	27.	2-Stroke Compression Test
03.	Change Tire (Manual Machine)	28.	2-Stroke Crankcase Press. Test (2 models)
04.	Change Tire (Pneumatic Machine)	29.	2-Stroke Crankcase Press. Test
05.	Change Tire (Bead Lock)	30.	Adjust Oil Injection Pump
06.	Change Tire (ATV) (2 models)	31.	Adjust Ignition Timing – Flywheel Mag.
07.	Emergency Tire Repair	32.	Check Ignition Timing – CDI
08.	Balance Wheel (Static)	33.	4-Stroke Compression Test (2 Models)
09.	Balance Wheel (Bubble)	34.	4-Stroke Compression Test
10.	Balance Wheel (Electronic)	35.	4-Stroke Cylinder Leakage Test (2 Models)
11.	R&R Wheel Bearings	36.	4-Stroke Cylinder Leakage Test
12.	Rebuild Wire Spoke Wheel	37.	R&R Dual Ignition Points* (Timing and Dwell)
13.	Service Mechanical Drum Brake	38.	Adjust Valve Clearance (Threaded Single)
14.	Change Brake Fluid Single Disc	39.	Adjust Valve Clearance (Threaded Double)
15.	Change Brake Fluid Dual Disc	40.	Adjust Valve Clearance (Shim O.B.)
16.	Service Hydraulic Disc Brake	41.	Adjust Cam Chain*
17.	Inspect Hydraulic Drum Brake	42.	Adjust Primary Chain
18.	Assembly and PDI	43.	Change Engine Oil & Filter
19.	Service Battery	44.	Check Oil Pressure (Roller Bearing)
20.	Inspect Liquid Cooling System	45.	Check Oil Pressure (Plain Bearing)
21.	Service Fuel Delivery System	46.	Synchronize Dual Carbs
22.	Service Live Carb(s) (2 models)	47.	Synchronize Four Carbs *
23.	Service Live Carb(s)		
24.	Identify/Test Electric Circuits (2 models)	*Optional	
25.	Identify/Test Electric Circuits		

