

DEPARTMENT OF MOTORCYCLE AND RECREATIONAL POWERSPORTS

COURSE OUTLINE – FALL 2012, SEMESTER 1
SEPTEMBER 4 – DECEMBER 21, 2012
MCM 150 SHOP I – 19 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

1501010 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: 19 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 preapprenticeship 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	Percentage	Designation			
	Equivalent	Guidelines				
A^{+}	4.0	90 – 100	EXCELLENT			
Α	4.0	85 – 89				
A ⁻	3.7	80 – 84	FIRST CLASS STANDING			
B ⁺	3.3	77 – 79				
В	3.0	73 – 76	GOOD			
B ⁻	2.7	70 – 72				
C ⁺	2.3	67 – 69	SATISFACTORY			
С	2.0	63 – 66				
C _	0.0	60 – 62				
D ⁺	0.0	55 – 59	FAIL			
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!

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

ATTENDANCE

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withdrawn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

Certain unavoidable absences <u>may</u> be excused by the instructor(s). In such cases the student shall make <u>every</u> effort to inform the instructor(s) <u>prior</u> 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 <u>next</u> 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 results 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.

> 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.

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

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		Service Battery
		22.	Inspect Liquid Cooling System
02.	Change Tire (Hand Levers)		
03.	Change Tire (Manual Machine)	23.	Service Steering Head Bearings
04.	Change Tire (Pneumatic Machine)	24.	Adjust ATV Steering (Quad)
05.	Change Tire (Bead Lock)	25.	Change Telescopic Fork Fluid
06.	Change Tire (ATV) (2 models)	26.	Change Telescopic Fork Seals
06a.	Change Tire (ATV)		Service Swing Arm Bearings
07.	Emergency Tire Repair (Tubeless)		
08.	Balance Wheel (Static)	28.	Identify/Test Electric Circuits (2 models)
09.	Balance Wheel (Bubble)		Identify/Test Electric Circuits
10.	Balance Wheel (Electronic)		
		29.	Service Fuel Delivery System
11.	R&R Wheel Bearings	30.	Service Live Carb(s) (2 models)
12.	Rebuild Wire Spoke Wheel	30a.	Service Live Carb(s)
13.	Service Mechanical Drum Brake	31.	2-Stroke Compression Test (2 models)
14.	Change Brake Fluid Single Disc	31a.	2-Stroke Compression Test
14a.	Change Brake Fluid Dual Disc	32.	2-Stroke Crankcase Press. Test (2 models)
15.	Service Hydraulic Disc Brake	32a.	2-Stroke Crankcase Press. Test
16.	Inspect Hydraulic Drum Brake	33.	Adjust Oil Injection Pump
		34.	Adjust Ignition Timing – Flywheel Mag.
17.	Inspect and Adjust Drive Chain	35.	Check Ignition Timing – CDI
18.	Inspect and Adjust Drive Belt		
19.	Inspect Gear Final Drive	36.	2-Stroke Top End R&R – Inspection
		37.	Deglaze 2-Stroke Cylinder
20.	Assembly and PDI		

> Remember, competency improves with practice!