

DEPARTMENT OF MOTORCYCLE AND RECREATIONAL POWERSPORTS

COURSE OUTLINE – FALL 2011, SEMESTER 1 AUGUST 29 – DECEMBER 16, 2011 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

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

Other Textbooks:

Modern Motorcycle Technology (text and workbook)

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 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.

Edward ABDO – Delmar

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	Designation		
A^+	4.0	90 - 100			
Α	4.0	85 – 89	EXCELLENT		
Α-	3.7	80 - 84			
B ⁺	3.3	77 – 79	FIRST CLASS STANDING		
В	3.0	73 – 76	6005		
B	2.7	70 – 72	GOOD		
C ⁺	2.3	67 – 69			
C	2.0	63 - 66	SATISFACTORY		
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!

<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 <u>solely</u> 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: (12 hours)	Student will be given a verbal warning by the Instructor (to be recorded).
2.	3.75% of total hours: (18 hours)	Student will be advised in writing by the Program Leader or designate.

 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/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating at 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 Maintenand	се
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
- **02.** Change Tire (Hand Levers)
- **03.** Change Tire (Manual Machine)
- **04.** Change Tire (Pneumatic Machine)
- **05.** Change Tire (Bead Lock)
- **06.** Change Tire (ATV) (2 models)
- **06a.** Change Tire (ATV)
- **07.** Emergency Tire Repair (Tubeless)
- **08.** Balance Wheel (Static)
- 09. Balance Wheel (Bubble)
- **10.** Balance Wheel (Electronic)
- 11. R&R Wheel Bearings
- **12.** Rebuild Wire Spoke Wheel
- **13.** Service Mechanical Drum Brake
- **14.** Change Brake Fluid Single Disc
- **14a.** Change Brake Fluid Dual Disc
- **15.** Service Hydraulic Disc Brake
- **16.** Inspect Hydraulic Drum Brake
- **17.** Inspect and Adjust Drive Chain
- 18. Inspect and Adjust Drive Belt
- **19.** Inspect Gear Final Drive

- 21. Service Battery
- 22. Inspect Liquid Cooling System
- **23.** Service Steering Head Bearings
- 24. Adjust ATV Steering (Quad)
- **25.** Change Telescopic Fork Fluid
- **26.** Change Telescopic Fork Seals
- **27.** Service Swing Arm Bearings
- **28.** Identify/Test Electric Circuits (2 models)
- 28a. Identify/Test Electric Circuits
- 29. Service Fuel Delivery System
- **30.** Service Live Carb(s) (2 models)
- **30a.** Service Live Carb(s)
- 31. 2-Stroke Compression Test (2 models)
- **31a.** 2-Stroke Compression Test
- **32.** 2-Stroke Crankcase Press. Test (2 models)
- 32a. 2-Stroke Crankcase Press. Test
- 33. Adjust Oil Injection Pump
- **34.** Adjust Ignition Timing Flywheel Mag.
- **35.** Check Ignition Timing CDI
- **36.** 2-Stroke Top End R&R Inspection
- 37. Deglaze 2-Stroke Cylinder

20. Assembly and PDI

Remember, competency improves with practice!