



DEPARTMENT OF AUTOMOTIVE AND PARTS

COURSE OUTLINE – WINTER 2013 SEMESTER B

HA 231 WORKSHOP PRACTICES II – 11 CREDITS 183 HOURS

INSTRUCTOR: Ryan Peterson **PHONE:** 780.835.6733
TBA

OFFICE: FTI 224 **E-MAIL:** RPeterson@GPRC.ab.ca

OFFICE Monday through Friday.
HOURS: 8:00 – 8:30 a.m. and 4:00 – 5:00 p.m.

PREREQUISITE(S)/COREQUISITE: None.

REQUIRED TEXT/RESOURCE MATERIALS:

Alberta Apprenticeship and Industry Training Individual Learning Modules*:

190102 a	Frame and Suspension Fundamentals
190102 b	Frame and Suspension Service
190102 c	Bearings and Seals
190102 f A	Coupling Units and Landing Gear Fundamentals and Service - Part A
190102 f B	Coupling Units and Landing Gear Fundamentals and Service - Part B
190102 h	Preventive Maintenance

*Part of the AIT General Mechanics Module Package.

CALENDAR DESCRIPTION: This lab based course focuses on: continued workshop safety, hydraulic system repair and testing, heavy equipment wheels, frames and suspension repair and testing. Trailer landing gear systems and coupling units are disassembled, inspected, and reassembled. Correct procedures for bearing and seal maintenance and installation are practiced. Conventional and anti-lock air brake systems components are disassembled, inspected, reassembled and inspected. Electrical systems and electronic control systems are worked on using conventional and electronic diagnostic tools.
Delivery Option – Fairview Campus Only

CREDIT/CONTACT HOURS: 183 hours; 14 weeks; 15 hours per week.

DELIVERY MODE(S): Workshop projects; procedures.

OBJECTIVES:

Upon completion of this course the student will be able to:

1. Practice workshop safety at all times.
2. Select, inspect, and safely use lifting equipment including wire rope, cable and nylon slings, lifting brackets.
3. Demonstrate correct jacking and blocking techniques.
4. Identify and determine correct service procedures for materials and fasteners.
5. Demonstrate the correct, safe use of hand, shop and power tools.
6. Inspect and repair frame and suspension systems.
7. Diagnose bearing and seal faults and perform necessary service.
8. Perform wheel removal, inspection, balance and installation using appropriate safety procedures.
9. Service trailer coupling systems and landing gears.
10. Perform trailer inspection.
11. Perform basic preventive maintenance service procedures.
12. Identify, diagnose and service common power assist braking systems.
13. Service and adjust a common parking brake system.
14. Service and adjust a common electric brake system.
15. Use electrical test equipment to measure electrical valves and check circuit operation.
16. Perform battery boosting, maintenance, and testing.
17. Test and repair electrical circuits.
18. Test electronic components.
19. Test and diagnose common electronic controlled circuits.
20. Identify, test and diagnose common hydraulic components.
21. Service, test and diagnose truck/tractor and trailer air brake systems.
22. Test air antilock brake components.
23. Service, test diagnose and repair hydraulic brake systems

TRANSFERABILITY: None.

GRADING CRITERIA: Students must complete all required courses with a grade point average of no less than 2.00 and no failing (F) grades. Pass mark of 65%.

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	
F	0.0	60 – 62	FAIL
F	0.0	55 – 59	
F	0.0	50 – 54	
F	0.0	0 – 49	
WF	0.0	0	FAIL, withdrawal after the deadline

EXAMINATIONS: Shop project performance evaluations based on Rubric 1 – 5.

- 1 – cannot do
- 2 – can do with continuous help
- 3 – requires some help and extra time
- 4 – requires extra time but no help
- 5 – can do well enough to help others

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.

STATEMENT ON PLAGIARISM AND CHEATING:

Please refer to

www.gprc.ab.ca/downloads/documents/Student%20Misconduct%20Plagiarism%20and%20Cheating.pdf regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.

COURSE SCHEDULE/TENTATIVE TIMELINE: 15 hours/week for 14 weeks in Semester B.