

# DEPARTMENT OF HEAVY EQUIPMENT HEAVY EQUIPMENT SERVICE COURSE OUTLINE – WINTER 2014 JANUARY 6 – FEBRUARY 28, 2014 HES241 – HYDRAULIC BRAKES - 1.5 (40 HOURS)

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<b>OFFICE HOURS:</b>	8.00am to 4.30pm		

PREREQUISITE(S)/COREQUISITE: Successful completion of Semester 1.

#### **REQUIRED TEXT/RESOURCE MATERIALS:**

#### Alberta Apprenticeship and Industry Training Individual Learning Modules Heavy Equipment Technician (HET)

- 190103a Hydraulic Brake System Fundamentals
- 190103b Hydraulic Brake System (Drum and Disc)
- 190103c Hydraulic Brake System Diagnosis and Service
- 190103d Hydraulic Brake Booster System Fundamentals and Service
- 190103e Parking Brake System Fundamentals and Service
- 190103f Electric Brake Fundamentals and Service

**CALENDAR DESCRIPTION:** The topic covered in this course will be hydraulic brake systems including drum and disc brakes, brake boosters, parking brakes as well as electric brakes. The servicing of these systems will also be covered. Delivery Option: Fairview Campus Only

**CREDIT/CONTACT HOURS:** Credits: 1.5 / Contact Hours: 40.

**DELIVERY MODE(S):** Lecture and lab.

TRANSFERABILITY: None.

**GRADING CRITERIA:** Students must complete all required courses with a grade point average of no less than 2.7 and no failing (F) grades. A passing grade in this course is a **minimum of 70%.** 

Hydraulic Brakes	. 40 / 240 hours = 17 % of Semester 2 mark	
Exams Average =		x 45%
Class Assignments/Quizzes =		x 30%
Shop Total		x 25%

HES241 FINAL MARK = \_\_\_\_\_%

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

## STUDENT RESPONSIBILITIES:

This is an adult education environment. Enrolment at Grande Prairie Regional College assumes that the student will become a responsible citizen of the College. As such, each student will display a positive work ethic, take pride in and assist in the maintenance and preservation of Institute property, and assume responsibility for his/her education by researching academic requirements and policies, demonstrating courtesy and respect toward others; and respecting instructor expectations concerning attendance, classroom and shop rules, safety, assignments, deadlines and appointments. Students are learning skills to prepare them for the work environment.

Following the guidelines in "Student Rights and Responsibilities" in the GPRC College calendar assist us all in maintaining an adult learning environment. Please refer to the Student Rights and Responsibilities policy in the Grande Prairie Regional College Calendar or at <u>www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf</u>.

## STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the GPRC Calendar at http://www.gprc.ab.ca/programs/calendar/ Pages 44 to 46 or the College Policy on Student Misconduct: Plagiarism and Cheating at http://www.gprc.ab.ca/about/administration/policies/. \*\*

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

## COURSE SCHEDULE/TENTATIVE TIMELINE:

- Fundamentals
- Components, Function and Nomenclature
- Hydraulic System and Operation
- Disc Brakes
- Drum Brakes
- Parking Brakes Mechanical and Hydraulic
- Machining
- Service