

# DEPARTMENT OF HEAVY EQUIPMENT HEAVY EQUIPMENT SERVICE COURSE OUTLINE – WINTER 2014 JANUARY 6 – FEBRUARY 28, 2014

## HES221 – TRUCK AND TRAILER SUSPENSION AND STEERING - 1.5 (48 HOURS)

**INSTRUCTOR:** Al Hagen **PHONE:** 780.835.6737

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OFFICE HOURS: 8.00am to 4.30pm

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

## REQUIRED TEXT/RESOURCE MATERIALS:

**Caterpillar Material** 

## **Caterpillar Service Industry**

Unit 4: Connective Devices

Lesson 2 - Hoses and Seals

Lesson 3 – Bearings

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

190102a - Frame and Suspension Fundamentals

190102b - Frame and Suspension Service

190102c - Bearings and Seals

190102d - Wheels, Tires and Hubs

190102e – Trailer Systems and Components

190102f - Coupling Units Fundamentals and Service

190102g – Landing Gear Fundamentals and Service

190102h – Orientation to Trailer Inspection

190102i – Preventive Maintenance

190404d – Orientation to Vehicle Inspection

**CALENDAR DESCRIPTION:** Topics covered in this course include: the fundamentals and servicing of truck and trailer frames and suspension; wheels, tires and hubs; trailer landing gear; coupling units; trailer types and an introduction to trailer inspection as directed by the Commercial Vehicle Inspection Program; oxy-fuel heating and cutting; and preventive maintenance.

Delivery Option: Fairview Campus Only

**CREDIT/CONTACT HOURS:** Credits: 1.5 / Contact Hours: 48.

**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%.** 

Truck and Trailer Suspension and Steering	
Exams Average =	x 45%
Class Assignments/Quizzes =	x 30%
Shop Total	x 25%
	HES221 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	
Α	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 <sup>-</sup>	2.7	70 – 72		
F	0.0	67 – 69	FAIL	
F	0.0	63 – 66		
F	0.0	60 – 62		
F	0.0	55 – 59		
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 <a href="https://www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf">www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf</a>.

### STATEMENT ON PLAGIARISM AND CHEATING:

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

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

## **COURSE SCHEDULE/TENTATIVE TIMELINE:**

- Truck and Trailer Frame and Suspension Fundamentals
- Truck and Trailer Frame and Suspension Service
- Truck and Trailer Wheels, Tires and Hubs