



**DEPARTMENT OF HEAVY EQUIPMENT**  
**THINKBIG SERVICE TECHNICIAN COURSE OUTLINE – FALL 2014**  
**SEPTEMBER 2 – OCTOBER 24, 2014**  
**HES 110 INTRODUCTION TO CATERPILLAR SERVICE INDUSTRY**  
**- 2.0 (56 HOURS)**

<b>INSTRUCTOR:</b>	Richard Byam Richard McGrail Rob Young	<b>PHONE:</b>	780.835.6723 780.835.6778 780.835.6730
<b>OFFICE:</b>	FM4 101	<b>E-MAIL:</b>	rbyam@gprc.ab.ca rmcgrail@gprc.ab.ca ryoung2@gprc.ab.ca
<b>OFFICE HOURS:</b>	8 AM to 4:30 PM		

**PREREQUISITE(S)/COREQUISITE:** None

**REQUIRED TEXT/RESOURCE MATERIALS:**

**Caterpillar Material**

***Caterpillar Service Industry***

*Unit 1: Cat History and Product Line Review*

Lesson 1: Cat History and Product Line Review

Lesson 2: Dealer Factory Network and Introduction to Cat Parts System

*Unit 2: Shop Safety and Equipment*

Lesson 1: Shop Safety and Equipment

Lesson 2: Shop and Cleaning Equipment

*Unit 3: Hand and Power Tools*

Lesson 1: Hand Tools

Lesson 2: Power Tools

Lesson 3: Precision Measuring Devices

Lesson 4: Pulling Tools

## ***Caterpillar Service Industry continued . . .***

Lesson 5: Lifting Tools

### *Unit 4: Connective Devices*

Lesson 1: Fasteners

Lesson 2: Hoses and Seals

Lesson 3: Bearings

### *Unit 5: Hazardous Materials*

Lesson 1: Hazardous Materials

Lesson 2: OSHA and EPA

### *Unit 6: Computer Operations*

Lesson 1: Basic Computer Operations

Lesson 2: Service Information Systems (SIS)

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

190101a – Safety Legislation, Regulations and Industry Policy in the Trades

190101b – Climbing, Lifting, Rigging and Hoisting

190101c – Hazardous Materials and Fire Protection

190101d – Communications

190101e – Materials and Fastening Devices

190101f – Hand, Shop and Power Tools

190101g – Measuring Tools

190101h – Oxyacetylene Equipment, Heating and Cutting

**CALENDAR DESCRIPTION:** This course will introduce the student to Caterpillar's history as well as familiarizing the student with the CAT product line. Included with this will be information on safety, materials and tools as well as shop facilities and equipment. Another segment of this will familiarize the student with the Caterpillar Service Information System as well as computer operation.

**CREDIT/CONTACT HOURS:** Credits: 2.0 / Contact Hours: 56

**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%.**

**Introduction to Caterpillar Service Industry..... 56 / 240 hours = 23 %  
of Semester 1 final mark**

**Exams Average = \_\_\_\_\_ x 45%**

**Class Assignments/Quizzes = \_\_\_\_\_ x 30%**

**Shop Total \_\_\_\_\_ x 25%**

**HES 110 FINAL MARK = \_\_\_\_\_ %**

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

### **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 [www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf](http://www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf).

### **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:**

### **Introduction to Caterpillar Service Industry**

- Caterpillar History
- Caterpillar Products
- Safety, Materials and Tools
- Shop Facilities
- Shop Equipment
- Computer Operation and Service Information System (SIS)
- Maintenance and Connective Devices