

## DEPARTMENT OF TRANSPORTATION TRADES

### THINKBIG SERVICE TECHNICIAN COURSE OUTLINE – WINTER 2024

MARCH 4, 2024 – APRIL 26, 2024

### HES 110 VZ12 INTRODUCTION TO CATERPILLAR SERVICE INDUSTRY

- 2.0 (56 HOURS)

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

**INSTRUCTOR:** Richard McGrail  
Welding Instructor TBA

**PHONE:** Office 780.835.6778

**OFFICE:** FAC 119

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**OFFICE HOURS:** 8 AM to 4:30 PM

**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. The course will include an introductory section on welding in the welding lab on campus.

**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
- 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: Introduction to DPC
- 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 and Trade Specific Safety
- 190101e – Materials and Fastening Devices

- 190101f – Hand, Shop and Power Tools
- 190101g – Measuring Tools
- 190101h – Oxyacetylene Equipment, Heating and Cutting

**DELIVERY MODE:**

In person – Onsite. This course is delivered in person at the NWP Fairview campus.

- NWP reserves the right to change the course delivery.

**LEARNING OUTCOMES:**

**TRANSFERABILITY:** None

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

**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 = 24 %  
of Semester 1 final mark**

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

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

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

**HES 110 VZ12 FINAL MARK =** \_\_\_\_\_ **%**

Grades for this course will be assigned as a percentage.

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

**Introduction to Caterpillar Service Industry**

- Caterpillar History
- Caterpillar Products
- Safety, Materials and Tools

- Shop Facilities
- Shop Equipment
- Computer Operation, DPC and Service Information System (SIS)
- Maintenance and Connective Devices

### **STUDENT RESPONSIBILITIES:**

This is an adult education environment. Enrolment at Northwestern Polytechnic 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 NWP College calendar assist us all in maintaining an adult learning environment. Please refer to the Student Rights and Responsibilities policy in the Northwestern Polytechnic Calendar or at [www.nwpolytech.ca/downloads/documents/StudentRightsandResponsibilities.pdf](http://www.nwpolytech.ca/downloads/documents/StudentRightsandResponsibilities.pdf).

### **STATEMENT ON PLAGIARISM AND CHEATING:**

Refer to the Student Conduct section of the NWP Calendar at <http://www.nwpolytech.ca/programs/calendar/> Pages 44 to 46 or the College Policy on Student Misconduct: Plagiarism and Cheating at \*\*

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