

## DEPARTMENT OF INDUSTRY PARTNER TRAINING

### THINKBIG SERVICE TECHNICIAN COURSE OUTLINE – Fall 2025

#### HES121 VA11 – INTRODUCTION TO MACHINE SYSTEMS –

#### 3.0 CREDITS (5-0-5) 80 HOURS FOR 8 WEEKS

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.

<b>INSTRUCTOR:</b>	Scott Bailer	<b>PHONE:</b>	780.835.6639
<b>OFFICE:</b>	FPS130	<b>E-MAIL:</b>	sbailer@nwpolytech.ca
<b>OFFICE HOURS:</b>	8.00am to 4.30pm		

**CALENDAR DESCRIPTION:** This course provides the foundation for the Heavy Equipment Service Program. The student will be introduced to the major systems found on heavy equipment, the components that comprise these systems, their functions and service techniques.

**PREREQUISITE(S):**

**COREQUISITE: :**

#### **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 Facilities, Equipment and Materials

Lesson 1 – Shop Safety Equipment

Lesson 2 – Shop Facilities and Maintenance Equipment

Lesson 3 – Contamination Control

Unit 3: Service Information System (SIS) and Cat Electronic Technician (ET)

Lesson 1 – Service Information System (SIS)

Lesson 2 – Cat Electronic Technician (ET)

**DELIVERY MODE:**

In person delivery. Fairview Campus Only

Note: NWP reserves the right to change the course delivery.

**LEARNING OUTCOMES:**

**TRANSFERABILITY:** None

**GRADING CRITERIA:** Students must complete all required courses with no failing grades. A passing grade in this course is a **minimum of 70%**. A student can be removed from the program if a 70% grade is not reached for the course.

Grades for this course will be assigned as a percentage.

**EVALUATION:**

**Introduction to Machine Systems**

**80 hours**

*Exams Average* = \_\_\_\_\_ *x 30%*

*Class Assignments / Quizzes* = \_\_\_\_\_ *x 40%*

*Shop Total* \_\_\_\_\_ *x 30%*

**FINAL MARK = \_\_\_\_\_ %**

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

Will be posted in the classroom.

## **STUDENT RESPONSIBILITIES:**

This is an adult education environment. Enrolment at Northwestern Polytechnic assumes that the student will become a responsible citizen of NWP. 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. Non-academic misconduct, including the possession, use, or distribution of intoxicants, will be addressed through the Student Rights and Responsibilities policy.

Students are expected to attend all class and shop hours. Students who miss more than 21 hours or 3 days of classes may be removed from the course.

Absences will be monitored and recorded by the instructors.

- Upon reaching 7 hours missed time in a single semester the student will be required to meet with the instructor.
- Upon reaching 14 hours missed time in a single semester the student will be required to meet with the instructor and program Chair.
- Upon reaching 21 hours missed time in a single semester the student will be required to meet with the Instructor, Program Chair, and the Dean to evaluate the students' ability successfully continue in the Think BIG program.

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 ACADEMIC MISCONDUCT:**

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>

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