

Lesson 6 – Flow Control Valves.

Unit 4: Pilot Operated Hydraulic System

Lesson 1 – Pilot Operated Implement Hydraulic System

Machine Hydraulic Systems

Unit 1: Pilot Operated Hydraulic Systems

Lesson 1 – 950G Pilot Operated Implement Hydraulic System

Unit 2: Load Sensing, Pressure Compensated Hydraulic Systems

Lesson 1 – Basic LS/PC Hydraulic Systems

Lesson 2 – LS/PC Hydraulic Pumps and NFC Hydraulic Systems

Machine Hydraulic Systems *continued* . . .

Unit 3: Proportional, Priority, Pressure Compensated Hydraulic Systems

Lesson 1 – PPPC Hydraulic System

Unit 4: Hydrostatic Systems

Lesson 1 – Basic Hydrostatic Systems

Lesson 2 – Hydrostatic System Controls

Lesson 4 – C Series Skid Steer Loader Hydrostatic Drive System.

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

190301a – Hydraulic Principles

190301b – Hydraulic Pump Fundamentals

190301c – Hydraulic Pump Service

190301d – Hydraulic Actuator Fundamentals

190301e – Hydraulic Actuator Service

190301fA – Hydraulic Valve II – Part A

190301fB – Hydraulic Valve II – Part B

190301g – Hydraulic System Types

190301h – Hydraulic System Testing and Service

190301i – Electrohydraulic

650401a – Alberta's Industry Network.

650401b – Workplace Coaching Skills.

650401c – Interprovincial Standards Red Seal Program.

DELIVERY MODE(S):

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

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 (F) grades. A passing grade in this course is a **minimum of 70%**. Grades for this course will be assigned as a percentage. Failure to achieve a minimum grade of 70% will result in withdrawal from the Think BIG program.

EVALUATIONS:

Machine Hydraulic Systems

96 hours

Exams Average = _____ *x 45%*

Class Assignments / Quizzes = _____ *x 30%*

Shop Total = _____ *x 25%*

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 to 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.

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.