

Unit 3: Hydraulic System Components

- Lesson 1 – Fluid Reservoirs and Hoses
- Lesson 2 – Hydraulic Fluids and Fluid Conditioners
- Lesson 3 – Hydraulic Pumps and Motors
- Lesson 4 – Pressure Control Valves
- Lesson 5 – Direction Control Valves
- Lesson 6 – Flow Control Valves
- Lesson 7 – Cylinders

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

- 190103g – Hydraulic Fundamentals
- 190103h – Hydraulic System Components: Reservoir, Filters, Hoses and Coolers
- 190103i – Hydraulic System Components: Pumps, Valves, and Cylinders

DELIVERY MODE(S):

In person delivery.

- Note: 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%**.

Hydraulic Fundamentals **56 / 240 hours = 23 %
of Semester 1 mark**

Exams Average = _____ **x 45%**

Class Assignments/Quizzes = _____ **x 30%**

Shop Total _____ **x 25%**

HES 141 VA11 FINAL MARK = _____ %

Grades for this course will be assigned as a percentage.

COURSE SCHEDULE/TENTATIVE TIMELINE:

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.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the Northwestern Polytechnic Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the Student Rights and Responsibilities policy which can be found at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

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