

Industry Partner Training

COURSE OUTLINE – Winter 2025

HD290 (V01): Harley-Davidson® Classic Powertrain Theory

Credits: 1. 16 Hours for 4 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.

INSTRUCTOR: Peter Sellers
OFFICE: FTD112
OFFICE HOURS: M-F 8.30 – 4.30

PHONE: 780-835-6643
E-MAIL: psellers@nwpolytech.ca

CALENDAR DESCRIPTION:

This course is for students who wish to gain the skills and knowledge to work on Classic Harley-Davidson® V-Twin Powertrains, within the model-year range 1970-1995.

PREREQUISITE(S):

NWP Harley-Davidson® 15-week certificate, MCM Certificate or MC Apprenticeship. Because the course requires precise measurement skills, the instructor reviews applicants who do not meet the prerequisites on an individual basis.

REQUIRED MATERIALS:

Program notes, handout pack & worksheets

DELIVERY MODE(S):

	Average Hours per Week	Length of Course in Weeks	Total Hours
Lecture	4	4	16
Lab	26	4	104
Course Totals →	30		120

LEARNING OUTCOMES:

In this course, students will gain the skills and knowledge to work on classic Harley-Davidson® Motorcycles.

The course will focus on classic Harley Davidson® powertrain repair techniques.

TRANSFERABILITY:

Not available

EVALUATIONS:

Areas of Evaluation	Percentage of Total Course Mark	Timelines, Quality Standards
Final Exam	50%	
Shop Assignments	50%	
Comments:	Upon completion of the course, you will receive an Acknowledgement of Course Completion certificate. Absences for tests will result in a score of zero. 2.0 Grade Point average required for successful completion = C=63%	

GRADING CRITERIA

Grading Chart for courses with Alpha Grading:

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

Grades for this course will be assigned as a percentage. The minimum passing grade is 63%.

COURSE SCHEDULE/TENTATIVE TIMELINE:

1. Ironhead Sportster: engine and transmission rebuild.
2. Evolution Sportster: engine and transmission rebuild.
3. Shovelhead Big Twin: engine and transmission rebuild.
4. Evolution Big Twin: engine and transmission rebuild.
5. Rocker arm bushing replacement (Sunnen hone)
6. Valve guide and seat replacement and sizing.
7. Cylinder bore and hone (Sunnen hone)
8. Wrist Pin bushing replacement.
9. Connecting rod bearing replacement (Sunnen hone)
10. Crankshaft balancing and truing.
11. Pinion bearing replacement and sizing.
12. Sprocket shaft bearing replacement and set endplay.
13. Cam cover bushing replacement.
14. Oil Pump drive bushing replacement.
15. General Engine building skills.

STUDENT RESPONSIBILITIES:

- This is an adult education environment.
- Students are expected to show respect for others.
- Students are learning skills to prepare them for the work environment.

Following the guidelines in "Student Rights and Responsibilities" in the NWP

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.