Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

**DEPT.** Powersports Technology  
**COURSE NUMBER:** PRSP 1135

**NUMBER OF CREDITS:** 6 credits (0 lecture - 6 lab)

**COURSE TITLE:** ATV / Motorcycle Operations

**CATALOG DESCRIPTION:** Students in this course will perform service operations to restore optimum performance and provide quality maintenance services for ATV and Motorcycle engines, transmissions, clutches, drive systems and suspensions on each vehicle style. Students will analyze performance and handling issues to determine needed corrective actions and complete required repairs.

**AUDIENCE:** Powersports Technology Students

**FULFILLS MN TRANSFER CURRICULUM AREA(S)** (Leave blank if not applicable)

**PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:**
- Passing grade in **TRAN 1100 Introduction to Transportation**
- Basic Mechanical Aptitude
- Capable of Reading and Writing
- Communication Skills.

**LENGTH OF COURSE:** 6 credits (0 lecture – 6 lab) Spring Semester

**THIS COURSE IS USUALLY OFFERED:** Spring Semester

**Four goals emphasized in course:**

1) **ACADEMIC CONTENT:** The academic objectives of this course are:
   a) Reading
   b) Writing
   c) Basic math

2) **THINKING SKILLS:** This course will help students improve the effectiveness of their thinking skills through:
   a) Problem Solving
   b) Diagnosing
   c) Analyzing
   d) Researching
3) **COMMUNICATIONS SKILLS:** This course will help students improve their oral and written communication skills through:
   a) Participation in class discussion.
   b) Completing written assignments.
   c) Improving oral communications skills through class and lab interaction.

4) **HUMAN DIVERSITY:** This course will help students recognize, understand, and appreciate human diversity through:
   a) To understand the roles of the technician in communicating with a diverse population.
   b) To work effectively in teams comprised of diverse backgrounds.
   c) To express personal philosophies on diverse issues.

**TOPICS TO BE COVERED:**
- Safety while working in the lab.
- 4-cycle engine tear down and assembly
- Maintenance procedures on ATV / Motorcycle engines, fuel systems, transmissions, clutches, suspension, cooling, braking, and drive systems
- Service manuals, and service bulletins
- Diagnostic troubleshooting ATV / Motorcycle systems
- Parts look up
- Complete maintenance and repair work

**LIST OF EXPECTED COURSE OUTCOMES:** Apply the fundamental understanding of the 4-cycle engine theory while learning the internal and external components during disassembly and assembly. During the examining of the engine components students will be relooking at precision measuring equipment. Students will be doing maintenance and required repair procedures to ATV / Motorcycles as they apply to fuel systems, clutches, suspension, cooling, braking, and drive systems.

**STUDENT LEARNING OUTCOMES (SPECIFIC):**
*Upon completion of this course the student will be able to:*
   a) Exhibit proper safety habits.
   b) Describe what is happening during the four strokes of a 4-cycle engine and identify the internal and external engine components.
   c) Demonstrate the proper sequence of disassembly according to the service manuals procedures.
   d) Illustrate the proper use of precision measuring tools while inspecting the engine during teardown.
   e) Apply a systematic approach to diagnosing problems.
   f) Exhibit proficient and diligent work habits while in the lab.
   g) Apply proper terminology of components while communicating with customers and instructor.
LEARNING/TEACHING TECHNIQUES used in the course are:
X Collaborative Learning  X Problem Solving
☐ Student Presentations  ☐ Interactive Lectures
☐ Creative Projects  ☐ Individual Coaching
X Lecture  X Films/Videos/Slides
X Demonstrations  ☐ Other (describe below)
X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X Reading  X Tests  X Individual Projects
☐ Oral Presentations  X Worksheets  ☐ Collaborative Projects
X Textbook Problems  ☐ Papers  ☐ Portfolio
☐ Group Problems  ☐ Term Paper
☐ Other (describe below)

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

The information in this course outline is subject to revision

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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