DEPT. Powersports Technology  
COURSE NUMBER: PRSP 1115

NUMBER OF CREDITS: 4 credits (0 lecture - 4 lab)

COURSE TITLE: Snowmobile Service Operations

CATALOG DESCRIPTION: This course will teach the service procedures of two cycle engines and students will perform service techniques to maintain quality performance. Beginning with engine service and rebuilding, students will also service drive systems and suspension systems. Service procedures will include fuel systems, electrical systems, cooling and accessary systems.

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: 4 credits (0 lecture – 4 lab) Fall Semester

THIS COURSE IS USUALLY OFFERED: Fall 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:**
- 2-cycle engine teardown
- Learning how to use precision measuring tools
- Precision measuring engine components
- Diagnosing and identifying failed components
- Servicing various systems of the snowmobile
- Looking up correct parts
- Assembly of engine using the correct torqueing sequences

**LIST OF EXPECTED COURSE OUTCOMES:** Apply acquired knowledge of the 2-cycle snowmobile engine into diagnosing, disassembling, inspecting, measuring, and ordering parts accordingly to the failed components within the fuel, electrical, and cooling systems. Continued instruction on how to identify and properly service components.

**STUDENT LEARNING OUTCOMES (SPECIFIC):**
*Upon completion of this course the student will be able to:*
- a) Exhibit proper safety techniques
- b) Describe and explain what strokes take place during the running of a 2-cycle engine in the correct order.
- c) Demonstrate the proper sequence of disassembly according to the service manuals.
- d) Describe and illustrate the proper use of precision measuring tools while inspecting the engine during teardown.
- e) Produce a clear plan of parts needed to properly repair system
- f) Demonstrate ability to correctly torque a given component in the proper sequence.
- g) Illustrate the ability to know where to find necessary parts.
- h) Working diligently and proficiently.
- i) Demonstrate proper use of verbal and written communication skills while talking to 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
ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

- X Reading
- X Tests
- X Individual Projects
- □ Oral Presentations
- X Textbook Problems
- □ Papers
- □ Collaborative Projects
- □ 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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Revised 1/11/18