POWERSPORTS AND SMALL ENGINE REPAIR TECHNOLOGY (PSER)

PSER 105 Foundations of Safety and Tools
(3 Credits, Fall)
Introduction to the outdoor power equipment and powersports industry. Includes safety practices, shop equipment and tools, vehicle subsystems, service publications, professional responsibilities, and basic outdoor power equipment and powersports maintenance. PREREQ: Completion of (or placement into) ENGL 101 and MATH 118, program orientation, and Powersports and Small Engine Repair Technology major. COREQ: PSER 110 and PSER 111. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 110 Dealership Operations
(3 Credits, Fall)
Introduction to basic outdoor power equipment, powersports dealership operations, and maintenance tasks based on current industry standards and requirements. Includes learning to use manufacturer information resources, interpret and complete service bulletins, and perform vehicle identification and pre-delivery inspections. Upon completion, students will be able to provide quality customer service at an entry-level within a service facility. COREQ: PSER 105 and PSER 111. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 111 Basic Fuel Systems and Outdoor Power Equipment Maintenance
(6 Credits, Fall)
Develop introductory technician skills in the areas of basic fuel systems and outdoor power equipment (OPE) maintenance. Topics include principles of carbureted systems, fuel system component identification, repair of various types of fuel systems, and fundamentals of OPE maintenance and light repair. COREQ: PSER 105 and PSER 110. *(2 lecture hours, 12 lab hours, 6 credits)*

PSER 112 Outdoor Power Equipment Engines
(3 Credits, Spring)
Introduction to outdoor power equipment (OPE) engines including four-cycle engines, two-cycle engines, and electric powered applications. Focuses on the theory, repair, and maintenance of various outdoor power equipment engine applications. PREREQ: PSER 105, PSER 110, and PSER 111. COREQ: PSER 125 and PSER 130. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 125 Basic Electrical Systems
(3 Credits, Spring)
Utilizing industry standards, students will learn to safely work on basic electrical systems found in the outdoor power and powersports industries. Includes electrical concepts such as charging systems, ignition systems, starting systems, and lighting systems. PREREQ: PSER 105, PSER 110, and PSER 111. COREQ: PSER 112 and PSER 130. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 130 Drivetrain and Chassis Components
(6 Credits, Spring)
Fundamentals of outdoor power equipment and powersports chassis and their related drive systems. Includes the theory, repair, and maintenance of various types of chassis components and drive systems commonly found in the outdoor power equipment and powersports industry. PREREQ: PSER 105, PSER 110, and PSER 111. COREQ: PSER 112 and PSER 125. *(2 lecture hours, 12 lab hours, 6 credits)*

PSER 200 Powersports Maintenance and Light Repair
(3 Credits, Fall)
Develop introductory technician skills in the areas of powersports service, maintenance, and light repair fundamentals. Includes shop and safety, tools and equipment, measuring, fasteners, engine operation, fuel systems, tires, suspension, brakes, and powertrain systems. PREREQ: PSER 112, PSER 125, and PSER 130. COREQ: PSER 240, PSER 245, and PSER 255. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 240 Engine Management and Advanced Fuel Systems
(3 Credits, Fall)
Fundamentals of electronic fuel injection systems commonly found on outdoor power and powersports equipment. Includes the theory, operation, types, diagnosis, and repair of electronic fuel injection systems. Also includes the theory, diagnosis, and repair of advanced carburetion systems found in powersports equipment. PREREQ: PSER 112, PSER 125, and PSER 130. COREQ: PSER 200, PSER 245, and PSER 255. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 245 Advanced Electrical Systems and Diagnostics
(3 Credits, Fall)
Building on the skills learned in Basic Electrical Systems (PSER 125), students will further their knowledge by working with more complex electrical circuits. Focuses on the theory of powersports electrical systems and the diagnostics of powersports and outdoor power electrical systems. PREREQ: PSER 112, PSER 125, and PSER 130. COREQ: PSER 200, PSER 240, and PSER 255. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 250 Powersports Engines
(3 Credits, Spring)
Advanced powersports engine technologies including four-cycle engines, two-cycle engines, and multi-cylinder engines. Focuses on the theory, repair, and maintenance of different powersports engine applications. PREREQ: PSER 200, PSER 240, PSER 245, and PSER 255. COREQ: PSER 260 and PSER 293. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 255 Suspension Technology
(3 Credits, Fall)
Examination of the essential suspension components and their effect on handling and ride quality. Learn to utilize original equipment and aftermarket components to improve suspension and handling performance, identify suspension design and function, and perform maintenance based on industry standards and manufacturer service intervals. PREREQ: PSER 112, PSER 125, and PSER 130. COREQ: PSER 200, PSER 240, and PSER 245. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 260 Dynamometer and Performance Technology
(3 Credits, Spring)
Introduction to the aftermarket parts and performance side of the powersports industry. Focuses on fulfilling the customer's needs with quality aftermarket parts and accessories. Includes installing, testing, and tuning various types of aftermarket parts utilizing specialty equipment including a Dynojet dynamometer. PREREQ: PSER 200, PSER 240, PSER 245, and PSER 255. COREQ: PSER 250 and PSER 293. *(1 lecture hours, 6 lab hours, 3 credits)*

PSER 293 Powersports and Power Equipment Internship
(6 Credits, Spring)
This course is designed to provide supervised application of coursework. Internship projects will be assigned by an instructor for each individual student and may take place within an industry or lab setting. This 8-week course is on-the-job style training and provides real-life experience as the student participates in the daily routine of an entry-level technician. Students may perform tasks on many different levels and a wide variety of subjects such as maintenance and light repair, brake system repair, suspension systems repair, electrical systems diagnosis and repair, engine and drivetrain repair, and performance modifications. An Internship Registration Form must be completed and submitted before students are able to register for an internship course. PREREQ: PSER 200, PSER 240, PSER 245, PSER 255, PERM/INST, and submission of a completed Internship Registration Form. COREQ: PSER 250 and PSER 260. *(0 lecture hours, 18 lab hours, 6 credits)*

Refer to How to Read Course Descriptions for an explanation of elements found in the course descriptions above.