



# PowerSport Technician



The PowerSport Technician program provides students with learning experiences which will enable them to learn industry job functions and attain service, maintenance and diagnostic skills. The program covers core information on motorcycle internal combustion engines, primary drive operation, transmission power flow, fuel system operation, electrical and suspension systems. Utilizing service center environment methods, the course prepares the successful student to understand and practice multiple roles and job functions used in the field. Students will learn maintenance on personal watercrafts, ATV's and snowmobiles from a variety of manufacturers. Following the fundamental core training, students will then move into specific training on major manufacturers including Honda, Suzuki, Yamaha, Kawasaki and others.

<u>Course</u>	<u>Course Title</u>	<u>Clock Hours</u>	<u>Weeks</u>	<u>Quarter Credit Hours</u>
PSI-101	Engine Systems – Core Skills	75	3	4.5
PSI-102	Fuel Systems Maintenance & Repair	75	3	4.0
PSI-103	Intro to Electrical Systems	75	3	4.5
PSI-104	Chassis & Suspension Systems Service	75	3	4.0
PSI-105	Advanced Electrical Systems	75	3	4.5
PSI-106	Periodic Maintenance & Tire Service	75	3	4.5
MS-101	Honda Technology	300	12	17.5
MS-102	Kawasaki Technology	300	12	17.5
MS-103	Yamaha Technology	300	12	17.5
MS-104	Suzuki Technology	300	12	17.5
MS-105	Off Road Technology	<u>150</u>	<u>6</u>	<u>8.5</u>
		1800	72	104.50

## **PSI-101 Engine Systems – Core Skills**

This module is designed to provide students with an understanding of 4-stroke and 2-stroke engine operation, part/component identification, disassembly and assembly of an engine to working order and manufacturer specifications. Students will develop basic engine service procedure skills while properly utilizing the textbook/workbook, shop resource materials, and the Resource Center. Students will learn hand tool identification and use, fastener identification, shop manual usage, measuring tools, and will be able to measure engine parts during disassembly.

## **PSI-102 Fuel Systems Maintenance & Repair**

This module is designed to provide students with an understanding of power sport vehicle fuel systems and carburetion. Students will learn mechanical diagnostics including compression and leak-down tests and valve adjustments. Students then continue with carburetor fuel circuits in mechanical slide and CV carburetors and include carburetor disassembly, component identification, cleaning, and rebuilding to manufacturer specifications and perform carburetor synchronization and idle drop tests on running vehicles while utilizing his textbook/workbook, shop resource materials, and the Resource Center.

## **PSI-103 Intro to Electrical Systems**

This course provides experiences which will enable the successful student to learn electrical systems operation, test equipment usage, electrical system testing procedures and properly utilize the resource material and Resource Center. Accessories, lighting, starting systems, and batteries are studied along with an introduction to electrical troubleshooting and diagnostic procedures.

## **PSI-104 Chassis and Suspension Systems Service**

This course prepares students for chassis service, and final drive operations, and repair procedures including general maintenance procedures on motorcycle chassis and suspension systems. A focus on suspension technology will be presented to provide core skill information and hands-on workstations to become familiar with suspension adjustments and service, repair procedures, and properly utilize the resource material and resource library Successful students will be able to perform general maintenance procedures on steering head bearings, swing arm bearings and or bushings, brakes systems and suspension systems.



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## **PSI-105 Advanced Electrical Systems**

This course provides experiences which will enable the successful student to gain further knowledge of electrical systems, advanced test equipment usage, electrical system testing procedures and proper utilization of the resource material and Resource Center. Ignition and charging systems are studied as well as the troubleshooting and diagnostic procedures for vehicle electrical systems.

## **PSI-106 Periodic Maintenance and Tire Service**

This course prepares students for manufacture periodic service procedures and tire change procedures on motorcycle and ATV vehicles. A focus on manufacture periodic service procedures will be presented to provide core skill information and hands-on workstations to become familiar with service, repair procedures, and properly utilize the manufacture service material and resource library. The course will also prepare students to tire changing procedure for tube and tubeless style wheels and to how to properly balance a tire. Successful students will be able to perform periodic maintenance procedures and tire changes on various powersport vehicles.

## **MS-101 Honda Technology**

This manufacturer supported course focuses on the requirements to become successful as a Honda Bronze-Level technician. This course prepares students to perform general maintenance procedures on Honda products including Honda ATV's and Motorcycles. Utilizing Honda resource materials students will perform service intervals and chassis maintenance procedures on ATV's and Motorcycles. Students will also learn to service and repair Honda engines, drive systems and electrical systems. Then move into the Honda service environment for troubleshooting of drivability issues, chassis service and suspension work and then into Honda's advanced electrical program.

## **MS-102 Kawasaki Technology**

This manufacturer supported course prepares students to operate in a Kawasaki service environment. Students will perform general maintenance procedures on Kawasaki products including ATVs, utility vehicles and motorcycles as well as become familiar with the K-Dealer software. Utilizing Kawasaki resource materials students will perform service intervals and chassis maintenance procedures. Students will also learn to service and repair Kawasaki engines, drive systems and electrical systems. Then move into the Kawasaki service environment for troubleshooting of drivability issues, fuel injection systems, perform brake and chassis service and suspension work and then into advanced electrical diagnosis using Kawasaki Diagnostic Software (KDS).

## **MS-103 Yamaha Technology**

This manufacturer supported course is to provide learning experiences which will enable the successful student to learn the specialized knowledge and service skills required of a Yamaha service technician. Students will perform general maintenance procedures on Yamaha products including ATVs and motorcycles as well as become familiar with the Yamaha Technical Academy opportunities. Utilizing Yamaha resource materials students will perform service intervals and chassis maintenance procedures as well as service and repair engines, drive systems and electrical systems. Students then move into the Yamaha bronze level training program and are introduced to "Silver Level Training" for servicing a variety of Yamaha products.

## **MS-104 Suzuki Technology**

This manufacturer supported course is to provide learning experiences which will enable the successful student to learn the specialized knowledge and service skills required of a Suzuki service technician including the Suzuki ServicePro certification. Students will perform general maintenance procedures on Suzuki products. Utilizing Suzuki specific resource materials, students will perform service intervals and chassis maintenance procedures as well as service and repair engines, drive systems and electrical systems. Students then move into more of the Suzuki ServicePro training program and will learn fuel



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injection systems, perform chassis service and suspension work and then into advanced electrical diagnosis.

## **MS-105 Off Road Technology**

This manufacturer supported course provides experiences which will enable the successful student to learn Arctic Cat, and Polaris chassis and suspension maintenance and repair procedures on snowmobiles as well as multiple brands of All Terrain Vehicles (ATV's) and Recreational Utility Vehicles (RUV's). Students will also have the opportunity to complete the requirements for their Arctic Cat CatMaster ATV and Snowmobile certification and the Polaris Manufacturer Service Dealer Training (MSD) recognition.

Courses applicable to both Diploma or Associate of Applied Science Degree Programs