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**IWRC Program of Study Available

Transportation, Distribution and Logistics Cluster

Cluster Description:

The Transportation, Distribution and Logistics Cluster focuses on careers in the planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Facility and Mobile Equipment Maintenance Pathway

Pathway Description:

Careers in the Facility and Mobile Equipment Maintenance pathway include the maintenance, repair, and servicing of vehicles and transportation facilities, as well as the refueling of mobile equipment. All transportation relies on equipment which must function as designed, whenever needed. The people in this pathway keep the equipment and machinery running while looking for more efficient, safe, and cost-effective ways to do so.

****Program of Study:** TR1620 Automotive Technology

Courses: 1631 Automotive Technology MLR-1
1623 Automotive Technology MLR-2
1625 Automotive Technology MLR-3
1637 Automotive Technology MLR-4

Program of Study Description:

The Automotive Technology Program of Study focuses on careers that will build a knowledge base and technical skills in all aspects of the automotive industry. Skill set standards for Career Preparation Skills, Safety, Leadership Development and Customer and Personal Service have been integrated throughout the Program of Study. Student skills sets will be acquired for Automotive Maintenance and Light Repair in the areas of Automotive Service Consultant, Tire Repair and Replacement, Maintenance Services, Electrical System Diagnosis and Repair, Engine and Engine Performance Diagnosis and Repair, Heating and Air Conditioning Diagnosis and Repair, Brake System Diagnosis and Repair, Suspension and Steering Diagnosis and Repair, and Driveline Diagnosis and Repair. Students will have the opportunity to acquire hours towards industry certification and be exposed to skills to develop positive work ethics.

Course Descriptions:

1631 Automotive Technology MLR-1

This course introduces the student to the knowledge base and technical skills as they relate to the field of Automotive Technology. In the Automotive Technology MLR-1 class areas of study include Automotive Service Consultant, Career Opportunities and Practices, Shop and Personal Safety, Tools and Equipment, Preparing Vehicle for Service, Electrical-General Electrical System Diagnosis, Electrical-Diagnosis and Service of Batteries, and Engines-Lubrication and Cooling

Systems Diagnosis and Repair. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, SkillsUSA West Virginia. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1623 Automotive Technology MLR-2

Automotive Technology MLR-2 continues as students are exposed to skills sets in areas such as Steering and Suspension-Diagnosis and Repair of Wheels and Tires, Brakes-Diagnosis and Repair of Hydraulic Systems, Brakes-Diagnosis and Repair of Drum Brake Systems, Brakes-Diagnosis and Repair of Disk Brake Systems, Brakes-Diagnosis and Repair of Power Assist Units, Brakes-Diagnosis and Repair of Miscellaneous Automotive Items, Brakes-Diagnosis and Repair of Anti-lock Brake Systems and Steering and Suspension-Diagnosis of Steering & Suspension Systems, Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1625 Automotive Technology MLR-3

Automotive Technology MLR-3 build student skill sets in the areas of Electrical-Demonstrate Starting System Diagnosis and Repair, Electrical-Demonstrate Charging System Diagnosis and Repair; Electrical-Demonstrate Lighting System Diagnosis and Repair, Electrical-Demonstrate Accessories System Diagnosis and Repair, Engines, General Engines, Engines-Diagnosis and Repair of Cylinder Head and Valve Train, and Engine Performance-General Engine Diagnosis. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1637 Automotive Technology MLR-4

Automotive Technology MLR-4 completes the Program of Study with skills sets in the areas of Engine Performance-Computerized Engine Controls; Engine Performance-Fuel, Air Induction, and Exhaust Systems Diagnosis and Repair; Engine Performance-Emissions Control Systems Diagnosis and Repair; Automatic Transmission and Transaxle-Diagnosis Maintenance, and Adjustment; Manual Drive Train and Axles-Diagnosis, Maintenance, and Adjustment; and Heating and Air Conditioning-Diagnosis, Maintenance, and Adjustment. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the

student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

****Program of Study:** TR1670 Collision Repair Technology

- Courses:** 1671 Fundamentals of Collision Repair
1675 Non-Structural Analysis and Damage Repair
1677 Structural Analysis and Damage Repair
1679 Surface Preparation and Refinishing

Program of Study Description:

The Collision Repair Technology Program of Study focuses on careers that will build a knowledge base and technical skills in all aspects of the Collision Repair industry. Students will have the opportunity to acquire hours towards NATEF certification and be exposed to skills to develop positive work ethics.

Course Descriptions:

1671 Fundamentals of Collision Repair

This course introduces the student to the knowledge base and technical skills as they relate to the field of Collision Repair Technology. In the Fundamentals of Collision Repair Technology class areas of study include career opportunities and practices, integrated academics, knowledge of tools and equipment, panel straightening techniques, and introduction to vehicle preparation. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1675 Non-Structural Analysis and Damage Repair

Non-Structural Analysis and Damage Repair will continue to build student skill sets in non-structural analysis and repair of metal and composite parts. Students will utilize integrated academics, problem-solving techniques, and manipulative skills while completing lab activities to develop an understanding of course concepts. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1677 Structural Analysis and Damage Repair

Structural Analysis and Damage Repair will continue to build student skill sets in frame and unibody type vehicles using welding techniques, measuring equipment, and frame machines. Students utilize problem-solving techniques and participate in hands-on activities to develop an

understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1679 Surface Preparation and Refinishing

Surface Preparation and Refinishing will continue to build student skill sets in preparing a surface for refinishing; inspect, clean and operate spraying equipment; detail a vehicle; and diagnose finish defects. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

Program of Study: TR1740 Diesel Equipment Technology

Courses: 1741 Diesel Engine Components
1744 Electronic Engine Controls
1747 Diesel Support Systems
1751 Fundamentals of Diesel Equipment Technology

Program of Study Description:

The Diesel Equipment Technology Program of Study focuses on careers that will build a knowledge base and technical skills in all aspects of the Diesel Equipment Technology industry. Students will have the opportunity to acquire hours towards industry ASE/NATEF certification and be exposed to skills to develop positive work ethics.

Course Descriptions:

1741 Diesel Engine Components

This course introduces the student to the knowledge base and technical skills as they relate to the field of Diesel Equipment Technology. In the Diesel Engine Components class areas of study include basic engine components, primary functions, service, inspection, and assembly procedures. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1744 Electronic Engine Controls

This course introduces the student to the knowledge base and technical skills for concepts in diesel electronic engine controls. Areas of study include electronic control modules, electronic fuel injection, and electronic control test equipment. Emphasis will be placed on career exploration, job seeking skills, and personal and professional ethics. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1747 Diesel Support Systems

This course introduces the student to the knowledge base and technical skills as they relate to Diesel Support Systems. In the Diesel Support Systems class areas of study include areas such as lubricating and cooling systems, air intake and exhaust systems, starting and charging systems, engine retarders, fuel systems, and governor operation. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide

each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1751 Fundamentals of Diesel Equipment Technology

This course introduces the student to the knowledge base and technical skills as they relate to the field of Fundamentals of Diesel Equipment Technology. In the Fundamentals of Diesel Equipment Technology class areas of study include personal and shop safety, career opportunities in the diesel technology industry, the proper use of hand and power tools, basic oxyacetylene cutting, electric welding, and basic shop etiquette. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

Program of Study: TR1960 Power Equipment Systems

- Courses:** 1962 Fundamentals of Power Equipment I
1964 Fundamentals of Power Equipment II
1966 Power Equipment Service I
1968 Power Equipment Service II

Program of Study Description:

The Power Equipment Systems Program of Study focuses on careers that will build a knowledge base and technical skills in all aspects of the Power Equipment Systems industry. Students will have the opportunity to acquire hours toward Equipment and Engine Training Counsel (EETC), Small Engine Certifications. Students are also exposed to positive work ethics.

Course Descriptions:

1962 Fundamentals of Power Equipment I

This course introduces the student to the knowledge base and technical skills for Fundamentals of Power Equipment I as a component of all courses in the Power Equipment Systems Program of Study. Areas of study include job seeking and keeping skills, safety, basic principles of engine operation, and air and fuel systems. Emphasis will be placed on career exploration, job seeking skills, and personal and professional ethics. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1964 Fundamentals of Power Equipment II

This course introduces the student to the knowledge base and technical skills for Fundamentals of Power Equipment II as a component of concepts in the Power Equipment Systems Program of Study. Areas of study include lubrication, cooling, electrical, and exhaust systems. Emphasis will be placed on career exploration, job seeking skills, and personal and professional ethics. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1966 Power Equipment Service I

This course introduces the student to the knowledge base and technical skills for Power Equipment Service I as a component of concepts in the Power Equipment Systems Program of Study. Areas of study include: basic shop skills, safety, measurement, and complete engine system service. Emphasis will be placed on career exploration, job seeking skills, and personal and professional ethics. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

1968 Power Equipment Service II

This course introduces the student to the knowledge base and technical skills for Power Equipment Service II as a component of concepts in the Power Equipment Systems Program of Study. Areas of study include: drive systems, chainsaws, and miscellaneous outdoor power equipment applications. Emphasis will be placed on career exploration, job seeking skills, and personal and professional ethics. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.

Transportation Systems/Infrastructure Planning, Management and Regulation Pathway

Pathway Description:

Careers in the Transportation Systems/Infrastructure Planning, Management and Regulation pathway deal with all aspects of the design and operation of our public transportation systems – road, air, sea and rail. These functions are primarily the responsibility of people who are employed by federal, state and local transportation agencies. Many businesses work to assist these agencies in their efforts.

Program of Study: TR2215 Global Logistics and Supply Chain Management (Advanced Careers)

Courses: 1555 AC Global Logistics and Supply Chain Management I
1556 AC Global Logistics and Supply Chain Management II
1557 AC Global Logistics and Supply Chain Management III
1558 AC Global Logistics and Supply Chain Management IV

Program of Study Description:

Logistics management connects various functions and organizations together in a supply chain system that includes cross-functional and inter-organizational activities. It is essential to understand the important role of logistics and its integration into the entire business process in a supply chain context. Hence critical thinking and interdisciplinary approaches are needed to understand the management of logistics and supply chain and know to use/apply the knowledge and skills in real-life business challenges.

Course Descriptions:

1555 AC Global Logistics and Supply Chain Management I

A course focused on the fundamental concepts and roles of logistics, activities, systems and costs. Also addresses the relation between logistics and supply and customer demand management.

1556 AC Global Logistics and Supply Chain Management II

A course providing the knowledge and skills needed to manage various functional areas in logistics. These functional areas include: inventory management, warehouse management, transportation system management.

1557 AC Global Logistics and Supply Chain Management III

This course focuses on logistics management in a global context. Important topics include: logistics relationship management, third-part logistics, issues in global logistics management, and logistics information technology.

1558 AC Global Logistics and Supply Chain Management IV

This course is the advanced level course that provides concepts, knowledge and skill in supply chain management. Students will learn the concept and importance of supply chain management, globalization, logistics function in the supply chain, supply chain network design,

and future challenges in supply chain and logistics management. Attention will be given to the relation and integration of global logistics and supply chain management.

Transportation, Distribution and Logistics Cluster Electives

Facility and Mobile Equipment Maintenance Pathway Electives

Program of Study: TR1620 Automotive Technology

WVEIS CODE	Courses
0520	Work-Based Integration and Transition
1621	Alternative Fuels
1627	Automotive Technology AST-4
1629	Automotive Technology AST-1
1633	Automotive Technology AST-2
1635	Automotive Technology AST-3

Electives Course Descriptions:

0520 Work-Based Integration and Transition

This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee. A supervised project will be developed in one or more of the following categories: Entrepreneurship (ownership or operation of a business); Placement (employment or internship); Research and Experimentation (planning and/or conducting a scientific experiment); Exploration (exploration of related careers through activities such as shadowing employees in various work settings, conducting on-line research, attending professional development activities, etc.). Students will develop materials to supplement their Simulated Workplace portfolios.

1621 Alternative Fuels

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Automotive Technology Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for a career in the automotive industry. This course is recommended as an Elective in Automotive Technology.

1627 Automotive Technology AST-4

The Skill Sets in Automotive Technology AST-4 will introduce students to the skills, technology, and service of Automatic Transmission and Transaxle-Diagnosis, Maintenance, Repair and Adjustment; Manual Drive Train and Axles-Diagnosis, Maintenance, Repair and Adjustment; and Heating and Air Conditioning-Diagnosis, Maintenance, Repair and Adjustment. This course is recommended as an Elective in Automotive Technology.

1629 Automotive Technology AST-1

The Skill Sets in Automotive Technology AST-1 will introduce students to the skills sets related to Electrical-Electrical/Electronic System Basics; and Alternative Fuels-Hybrid Vehicles; NAFTC Program or Additional electrical Tasks from NATEF MAST Program. This course is recommended as an Elective in Automotive Technology.

1633 Automotive Technology AST-2

The Skill Sets in Automotive Technology AST-2 will concentrate on the skills sets related to Steering and Suspension; and Brakes. This course is recommended as an Elective in Automotive Technology.

1635 Automotive Technology AST-3

The Skill Sets in Automotive Technology AST-3 will introduce students to Engines-General Engines: Engine Diagnosis; Removal and Re-installation (R&R); Engines-Diagnosis and Repair of Cooling and Lubrication Systems; and Engine Performance-General Engine Diagnosis. This course is recommended as an Elective in Automotive Technology.

Program of Study: TR1670 Collision Repair

WVEIS CODE	Courses
0520	Work-Based Integration and Transition
1631	Automotive Technology MLR-1
1672	Detailing and Interior Parts
1673	Mechanical and Electrical Components
1674	Refinishing Techniques
1676	Custom Finishing Processes

Electives Course Descriptions:

0520 Work-Based Integration and Transition

This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee. A supervised project will be developed in one or more of the following categories: Entrepreneurship (ownership or operation of a business); Placement (employment or internship); Research and Experimentation (planning and/or conducting a scientific experiment); Exploration (exploration of related careers through activities such as shadowing employees in various work settings, conducting on-line research, attending professional development activities, etc.). Students will develop materials to supplement their Simulated Workplace portfolios.

1631 Automotive Technology MLR-1

This course will introduce students to the basic fundamental skills needed for Automotive Technology such as automotive service consultant, tire repair and replacement and maintenance services, electrical basics and transmission and transaxle. Students will comply with personal and environmental safety practices associated with proper ventilation, handling, storage, and disposal of brake components. Areas of study include diagnosis and repair of hydraulic systems, diagnosis and repair of drum brakes, diagnosis and repair of disc brakes, power assist systems, and antilock brake systems. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities.

1672 Detailing and Interior Parts

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Collision Repair Technology Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary in detailing and interior parts for those enrolled in Collision Repair Technology. This course is recommended as an Elective in Collision Repair Technology.

1673 Mechanical and Electrical Components

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Collision Repair Technology Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for mechanical and electrical repairs as they apply to Collision Repair Technology. This course is recommended as an Elective in Collision Repair Technology.

1674 Refinishing Techniques

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Collision Repair Technology Program of Study. Incorporated into this course are elements of advanced refinishing skills necessary for a career in the collision repair industry. This course is recommended as an Elective in Collision Repair Technology.

1676 Custom Finishing Processes

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Collision Repair Technology Program of Study. Incorporated into this course are elements of advanced custom finishing processes and skills necessary for a career in the collision repair industry. This course is recommended as an Elective in Collision Repair Technology.

Program of Study: TR1740 Diesel Equipment Technology

WVEIS CODE	Courses
0520	Work-Based Integration and Transition
1625	Automotive Technology MLR-3
1631	Automotive Technology MLR-1
1637	Automotive Technology MLR-4
1742	Diesel Equipment Electrical Systems
1743	Diesel Engine Tune Up and Trouble Shooting
1745	Diesel Preventive Maintenance and Inspection
1749	Diesel Truck Chassis Concepts

Electives Course Descriptions:

0520 Work-Based Integration and Transition

This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee. A supervised project will be developed in one or more of the following categories: Entrepreneurship (ownership or operation of a business); Placement (employment or internship); Research and Experimentation (planning and/or conducting a scientific experiment); Exploration (exploration of related careers through activities such as shadowing employees in various work settings, conducting on-line research, attending professional development activities, etc.). Students will develop materials to supplement their Simulated Workplace portfolios.

1625 Automotive Technology MLR-3

This course will introduce students to the basic fundamental skills needed to diagnosis and repair brake systems. Students will comply with personal and environmental safety practices associated with proper ventilation, handling, storage, and disposal of brake components. Areas of study include diagnosis and repair of hydraulic systems, diagnosis and repair of drum brakes, diagnosis and repair of disc brakes, power assist systems, and antilock brake systems. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities.

1631 Automotive Technology MLR-1

This course will introduce students to the basic fundamental skills needed for Automotive Technology such as automotive service consultant, tire repair and replacement and maintenance services, electrical basics and transmission and transaxle. Students will comply with personal and environmental safety practices associated with proper ventilation, handling, storage, and disposal of brake components. Areas of study include diagnosis and repair of

hydraulic systems, diagnosis and repair of drum brakes, diagnosis and repair of disc brakes, power assist systems, and antilock brake systems. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities.

1637 Automotive Technology MLR-4

This course will introduce students to the basic fundamental skills needed to diagnosis and repair suspension and steering systems. Students will comply with personal and environmental safety practices associated with proper ventilation, handling, storage, and disposal of brake components. Areas of study include diagnosis and repair of hydraulic systems, diagnosis and repair of drum brakes, diagnosis and repair of disc brakes, power assist systems, and antilock brake systems. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities.

1742 Diesel Equipment Electrical Systems

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Diesel Equipment Technology Program of Study. Incorporated into this course are heavy-truck electrical theory, engine and truck wiring circuits, storage batteries and diesel electrical system testing. This course is recommended as an Elective in Diesel Equipment Technology.

1743 Diesel Engine Tune Up and Trouble Shooting

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Diesel Equipment Technology Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for a career in diesel mechanics. This course is recommended as an Elective in Diesel Equipment Technology.

1745 Diesel Preventive Maintenance and Inspection

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Diesel Equipment Technology Program of Study. Incorporated into this course include engine system maintenance, under hood and cab maintenance, electrical/electronic systems, frame and chassis maintenance. This course is recommended as an Elective in Diesel Equipment Technology.

1749 Diesel Truck Chassis Concepts

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Diesel Equipment Technology Program of Study. Incorporated into this course are elements of transmissions, clutches, suspension, steering, and air brakes. Emphasis will be placed on operating theory, removal and installation of major components, and service and inspection procedures for a career in diesel equipment technology. This course is recommended as an Elective in Diesel Equipment Technology.

Program of Study: TR1960 Power Equipment Systems

WVEIS CODE	Courses
0520	Work-Based Integration and Transition
1970	Power Equipment Systems Applications
1972	Recreational Applications
1973	Compact Diesels
1974	Generators

Electives Course Descriptions:

0520 Work-Based Integration and Transition

This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee. A supervised project will be developed in one or more of the following categories: Entrepreneurship (ownership or operation of a business); Placement (employment or internship); Research and Experimentation (planning and/or conducting a scientific experiment); Exploration (exploration of related careers through activities such as shadowing employees in various work settings, conducting on-line research, attending professional development activities, etc.). Students will develop materials to supplement their Simulated Workplace portfolios.

1970 Power Equipment Systems Applications

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Power Equipment Systems Program of Study. Incorporated into this course are required forms for service department operation, motorcycle and ATV brake systems, transmissions, and suspension systems for a career in power equipment systems. This course is recommended as an Elective in Power Equipment Systems.

1972 Recreational Applications

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Power Equipment Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for a career in power equipment sales and service. This course is recommended as an Elective in Power Equipment Systems.

1973 Compact Diesels

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Power Equipment Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for a career in power equipment sales and service. This course is recommended as an Elective in Power Equipment Systems.

1974 Generators

The Skill Sets in this course are representative of the basic knowledge included in a Career and Technical Power Equipment Program of Study. Incorporated into this course are elements of introductory knowledge and skills necessary for a career in power equipment sales and service. This course is recommended as an Elective in Power Equipment Technology.

**Transportation Systems/Infrastructure Planning, Management and Regulation Pathway
Electives**

Program of Study: TR2215 Global Logistics and Supply Chain Management (Advanced Careers)

WVEIS CODE	Courses
0520	Work-Based Integration and Transition

Electives Course Description:

0520 Work-Based Integration and Transition

This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee. A supervised project will be developed in one or more of the following categories: Entrepreneurship (ownership or operation of a business); Placement (employment or internship); Research and Experimentation (planning and/or conducting a scientific experiment); Exploration (exploration of related careers through activities such as shadowing employees in various work settings, conducting on-line research, attending professional development activities, etc.). Students will develop materials to supplement their Simulated Workplace portfolios.

Adult Program of Study

Cluster Description:

The Transportation, Distribution and Logistics Cluster focuses on careers in the planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Transportation Operations Pathway

Pathway Description:

Careers in the Transportation Operations pathway are really on the move! These are the people that drive or pilot the vehicles that transport people and freight. Equally important to this pathway are the support people who ensure that any cargo transport is safe, secure, and on time.

Program of Study: TR2170 Truck Driving

Course: 2171 Truck Driving

Program of Study Description:

The Truck Driving Program of Study focuses on careers that will build a knowledge base and technical skills in the truck driving industry. Students will receive hands-on training in order to obtain a Class A or Class B CDL (Commercial Driver's License).

Course Descriptions:

2171 Truck Driving

This course introduces the student to the knowledge base and technical skills of the Truck Driving industry. Students are introduced to the knowledge base and technical skills required for a Commercial Driving License as required by West Virginia Department of Transportation. Areas of study include CDL license information, licensing procedures and requirements and traffic laws. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.