



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, logistic services, mobile equipment and facility maintenance

Pathway: Automotive Technology

Transportation Core

Credit: ½ - 1

SDE Course Code: 5702

MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course students may enter automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and refinish technology, or aviation maintenance.

Automotive: Brake Systems

Credit: 1 - 2

SDE Course Code: 5712

MNPS Course Code: VO8109

Automotive: Brake Systems course offers training in the diagnosis and repair of hydraulic, mechanical, and electrical systems used in standard and anti-lock brake systems. Course content includes diagnosis, repair, and/or service technology of

hydraulic and antilock brake systems to original equipment manufacture (OEM) specifications. Educational experiences simulate automotive service industry operations through training aids, laboratory facilities, and school-based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Brake System test, for entry level placement in the workforce, and for entry into post-secondary education.

Automotive: Steering and Suspension

Credit: 1 - 2

SDE Course Code: 5710

MNPS Course Code: VO8107

Automotive: Suspension and Steering is a course that prepares students for entry-level positions or advanced training in automotive suspension and steering systems. Course material covers the principles of automotive suspension/steering systems and four-wheel suspension alignment. Course content provides the student the opportunity to acquire marketable skills by training in wheel alignment and the testing, diagnosis, and repair of steering and suspension systems. Lab facilities and experiences simulate automotive service industry

operations through the use of training aids and modules and school-based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Suspension and Steering test.

Automotive: Electrical Systems

Credit: 2 - 3

SDE Course Code: 5713

MNPS Course Code: VO8106

Automotive: Electronics is a course that prepares students for entry-level positions or advanced training in automotive electrical and electronics systems. Students apply principles of electronics to automotive technology and develop diagnostic skills. The course provides students the opportunity to acquire marketable skills by training in the use of digital and analog voltmeters, ohmmeters, and amp-meters; as well as oscilloscopes, test-lights, load-testers and specialized electrical test equipment. Education experiences simulate automotive service industry operations through the use of training aids and modules and school-based learning opportunities. Course content prepares students for the Automotive Service Excellence (ASE) Electrical and Electronics.

Pathway: Collision Repair Technology

Career Management Success

Credit: ½ - 1

SDE Course Code: 5701

MNPS Course Code: VOC8160

Career Management Success is a core course for career clusters. The course provides students with tools for achieving success in their academic, work, and personal lives.

Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All

course content is presented in a real-world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete the Professional Development Program Level I and Level II of SkillsUSA or other degree programs in other career and technical youth organizations.

Transportation Core
Credit: ½ - 1
SDE Course Code: 5702
MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course students may enter automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and

refinish technology, or aviation maintenance.

Collision Repair: Non- Structural
Credit: 2-3
SDE Course Code: 5707
MNPS Course Code: VO8602

Collision Repair: Non-Structural is a course that prepares students to analyze non-structural collision damage to a vehicle, determine the extent of the damage and the direction of impact, initiate an appropriate repair plan, and correctly use equipment to fit metal to a specified dimension within tolerances. Course content includes metal finishing, body filling and glass panel replacements. The course prepares students for entry level employment and advanced training in collision repair technology, and post secondary education. Students completing the Collision Repair: Non-Structural are eligible to take the ASE written examination for Non-Structural Analysis and Damage Repair.

Collision Repair: Painting and Refinishing
Credit: 3 - 4
SDE Course Code: 5709
MNPS Course Code: VO8502

Collision Repair: Painting and Refinishing is a course that prepares students to use plastics and adhesives in the repair and refinish processes and to apply automotive paint to a vehicle. Students learn to diagnose automotive paint finish problems and to perform the appropriate manufacturer-required techniques and processes to refinish the affected area or the complete vehicle. Course content provides the student with training in mixing, matching, and applying paint and finish to vehicles. Course content includes the application of plastics and adhesives in the repair and refinish processes. The course prepares students for entry level employment and advanced training in collision repair technology, and post secondary education. Students completing the Collision Repair: Painting and Refinishing are eligible to take the ASE written examination for Paint and Refinish and for Plastics and Adhesives.

Pathway: Diesel Technology

Transportation Core
Credit: ½ - 1
SDE Course Code: 5702
MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course students may enter

automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and refinish technology, or aviation maintenance

Diesel Preventative Maintenance
Credit: 1
SDE Course Code: 5714
MNPS Course Code: VO5714

Diesel: Preventive Maintenance Inspection is a course offering training in the inspection and servicing of heavy trucks. The course introduces students to proper procedures and

practices for preventive maintenance and servicing. Students learn to perform entry-level technician inspection tasks. Students upon completion of the course will be eligible to take the ASE (Automotive Service Excellence) examination for Heavy Truck Preventive Maintenance

Diesel Suspension & Steering
Credit: 2-3
SDE Course Code: 5716
MNPS Course Code: VO5716

Diesel: Suspension and Steering is a course offering training in the diagnosis and repair of the steering and suspension systems of medium and heavy trucks. Students learn the principles of suspension/steering

systems and suspension alignment. The course provides the student with training in wheel alignment and the testing, diagnosis, and repair of steering and suspension systems. Course content prepares students for entry level employment in diesel suspension and steering, continuing education in diesel technology and post secondary education. Students completing the Diesel: Suspension and Steering course will be eligible to take the ASE written examination

for Suspension and Steering in Medium/Heavy Trucks.

Diesel Electrical/Electronics
Credit: 2
SDE Course Code: 5717
MNPS Course Code: VO5717

Diesel: Electrical/Electronics is a course offering training in the diagnosis and repair of the electrical systems of medium and heavy trucks. Students apply principles of electricity and electronics to diesel

technology and develop diagnostic skills. The course provides training in the use of electrical test equipment such as digital multimeters (DMM) and ammeters. Course content prepares students for entry level employment in diesel electrical and electronics, continuing education in diesel technology and post secondary education. Students completing the Diesel: Electronics course will be eligible to take the ASE written examination for Electrical and Electronics in Medium/Heavy Trucks.

Pathway: Aviation Maintenance

Career Management Success
Credit: ½ - 1
SDE Course Code: 5701
MNPS Course Code: VOC8160

Career Management Success is a core course for career clusters. The course provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real-world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete the Professional Development Program Level I and Level II of SkillsUSA or other degree programs in other career and technical youth organizations.

subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course students may enter automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and refinish technology, or aviation maintenance

Industry. Course content includes math and basic physics as applied to aviation, basic aerodynamics, aircraft structures, sheet metal, aircraft wood and fabric, avionics, assembly and rigging of rotary wing aircraft, aircraft inspections and all Federal Aviation Administration (FAA) Regulations that govern technicians. Federal Aviation Administration (FAA) Regulations require 380 contact hours in Maintenance toward Airframe or Powerplant certification.

Aviation Maintenance I
Credit: 2
SDE Course Code: 5703
MNPS Course Code: VO8401

Aviation Maintenance I offers the first part of the general aviation maintenance content common to Airframe and Powerplant Maintenance Technology. The course prepares students for Aviation Maintenance II and subsequent gainful employment or further study leading to Federal Aviation Administration (FAA) certification in Airframe and/or Powerplant certification. Students are introduced to career opportunities and paths within the Aviation Maintenance

Aviation Maintenance II
Credit: 2
SDE Course Code: 5704
MNPS Course Code: VO8501

Aviation Maintenance II continues the general aviation maintenance content begun in Aviation Maintenance I. The course prepares students for gainful employment or further study leading to Federal Aviation Administration (FAA) certification in Airframe and/or Powerplant certification. Course content includes sheet metal, aircraft wood and fabric, avionics, assembly and rigging of rotary wing aircraft, aircraft inspections and a review of all Federal Aviation Administration (FAA) Regulations that govern technicians.

Transportation Core
Credit: ½ - 1
SDE Course Code: 5702
MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all

Pathway: Aviation Flight

Career Management Success
Credit: ½ - 1
SDE Course Code: 5701
MNPS Course Code: VOC8160

Career Management Success is a core course for career clusters. The course provides students with tools for achieving success in their aca-

ademic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a

real-world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete the Professional Development Program Level I and Level II of SkillsUSA or other degree programs in other career and technical youth organizations.

Transportation Core

Credit: ½ - 1

SDE Course Code: 5702

MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing

this course students may enter automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and refinish technology, or aviation maintenance

Introduction to Aerospace

Credit: 1

SDE Course Code: 5719

MNPS Course Code: VO8601

Introduction to Aerospace is a course that introduces students to the knowledge and procedures required for the ground school (knowledge) portion of the Federal Aviation Administration (FAA) private pilot license examination. Students explore the history of aviation, career opportunities and paths within aviation, and the regulations governing those careers. The course also introduces principles of aeronautical decision making, airplane systems, and aerodynamics while preparing student for the course in Flight Theory. Course content prepares students for post secondary education

and advancement in the aerospace industry.

Theory of Flight

Credit: 1

SDE Course Code: 5720

MNPS Course Code: VO8701

Theory of Flight is a course that continues and completes the presentation of knowledge and procedures required for the ground school (knowledge) portion of the Federal Aviation Administration (FAA) private pilot license, begun in Introduction to Aerospace. Students will explore the flight environment and weather formation and assess how weather data and other factors impact safety and flight operations. The course also covers Federal Aviation Administration (FAA) regulations affecting private pilot operations; predicting aircraft performance, weight, and balance; types of navigation in pilotage and dead reckoning; aviation physiology and aeronautical decision-making; and cross-country flying.

Pathway: Leisure Craft/Small Engine Technology

Career Management Success

Credit: ½ - 1

SDE Course Code: 5701

MNPS Course Code: VOC8160

Career Management Success is a core course for career clusters. The course provides students with tools for achieving success in their academic, work, and personal lives. Course content emphasizes the basic skills and knowledge needed for employment success, as identified by industry and supported by relevant national standards. All course content is presented in a real-world context, providing concrete opportunities for developing personal and career goals, effective communication skills, teamwork abilities, and successful work attitudes. Upon completion of the course, students will be able to complete the Professional Development Program Level I and Level II of SkillsUSA or other degree programs in other career and technical youth organizations.

Transportation Core

Credit: ½ - 1

SDE Course Code: 5702

MNPS Course Code: VOC8165

The Transportation Core course prepares students for entry into all subsequent transportation courses. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, basic engine fundamentals, and basic technician skills. Upon completing this course students may enter automotive service technology, diesel equipment maintenance technology, leisure craft/small engine service technology, collision repair and refinish technology, or aviation maintenance

Leisure Craft/Small Systems

Credit: 1 - 2

SDE Course Code: 5705

MNPS Course Code: VOC5705

Leisure Craft/Small Engine Technology: Systems is a course that prepares students for entry-level positions or advancement in the small engine career paths. The course of study focuses on motorcycles, watercraft, all-terrain vehicles (ATV), jet skis, outboard motor boats, and garden vehicles. Content provides students the opportunity to acquire skills relating to safety, shop operations, and basic technician skills in brake systems, suspension systems, steering systems, tilt and trim systems, and transmission systems relating to small engines. Students will perform inspections, tests, and measurements for diagnosis and perform needed repairs. Education and experience simulate the small engine service industry operations through the use of training aids and modules and offer school-based and work-based learning opportunities.

Leisure Craft/Small Engine Performance

Credit: 1 - 2

SDE Course Code: 5715

MNPS Course Code: VOC5715

Leisure Craft/Small Engine Technology: Engine Performance is a course that prepares students for entry-level positions or advanced training in engine performance in small engines. Course content focuses on motorcycles, all-terrain vehicles (ATV), jet skies, outboard motors, and garden equipment vehicles. The course covers charging and electrical systems, ignition systems, fuel delivery systems, emission systems, and diagnosis of electrical mechanical systems. Students will perform inspections, tests, and measurements for diagnosis and perform needed repairs. Education and experience simulate small engine industry operations through the use of training aids and modules and offer school-based and work-based learning opportunities.