



Chippewa Valley Schools
19120 Cass Avenue
Clinton Township, MI 48038

Roseville Community Schools

PRE-VOCATIONAL AUTO TECHNOLOGY

Course A: The first term covers safety with tools and tool usage, and covers basic components and identification of systems of the automobile. Course B: The second term covers safety with tools and tool usage, and students will learn basic automobile maintenance and perform objectives, such as oil change, tire rotation, and tune-ups based on the NATEF requirements. Course C: The third term covers safety with tools and tool usage, and students will learn basic operation of the 4-stroke engine and the alternative fuel engines. Students dismantle and rebuild an engine in the course.

PRE-VOCATIONAL BUILDING TRADES

Course A: Students will be introduced to many facets of the building trades industry. This class will emphasize general safety practices as well as safe use of hand and power tools. In addition, the student will gain a working knowledge of selected hand and power tools as they relate to construction-oriented projects. Hands-on experiences are an integral part of the curriculum. Course B: This course will provide a “hands-on learning” experience in blueprint and plan reading through the construction of oriented projects. This will include use of all applicable tools and materials required in the construction of a house. During this course all aspects of site and workplace safety related to residential construction will be practiced and evaluated. General safety practices as well as safe use of hand tools will be emphasized. Course C: This course is designed to give students hands-on real application in the building trades. Career and occupational competencies are taught in plumbing, electrical, framing, drywall, roofing, siding and power tool usage. Safety practices as well as safe use of hand and power tools will be emphasized. Students will construct a large-scale project.

PRE-VOCATIONAL MECHANICAL DRAFTING

Course A: In the first term, all of the fundamental groundwork is done in the areas of measuring, lettering, sketching, line quality and use of drafting equipment and tools. This is essential knowledge that must be mastered to insure success. Class activities include exercises, Orthographic drawings, Geometric constructions and an introduction to and use of AutoCAD. Course B: The second semester classroom activities deal primarily with drawings. The material covered is Dimensioning, Auxiliary View and Section View drawings, Fasteners and Pictorial drawings. Every third drawing will be completed on computers using AutoCAD. Course C: In the third term, Course A

and Course B will be combined for personal projects, students will build architectural building, and mechanical activities. The students will improve their skills on the board and computer through AutoCAD.

PRE-VOCATIONAL MACHINE TRADES

Course A: This course covers the importance of shop safety, tool safety, and machine safety. Students will be introduced to the vertical milling machine, its operations, setups, tooling, and the use of precision measuring instruments. Course B: This course covers the importance of shop safety, tool safety, and machine safety. Students will be introduced to the engine lathe, its operations, setups, tooling, and the use of precision measuring instruments. Course C: This course covers the importance of shop safety, tool safety, and machine safety. Students will be introduced to the surface grinder, its operations, setups, tooling, and the use of precision measuring instruments. Note: Students may enroll in the entire series, A, B, C but are not required.

PRE-VOCATIONAL WOODWORKING

Course A: This course covers shop safety, tool safety, and machine safety. Students will begin building a mandatory project to become confident with the basic skills of wood-working. After completing the first project, the students may pick their next one from a recommended list. Course B: This course will review critical parts of Course A. If a student has successfully completed Course A, they will begin to explore more advanced joinery and furniture building. Course C: This course will review critical parts of Course A. If a student has successfully completed Course A, and/or B they will continue to expand their skills in more advanced woodworking methods and projects. Note: Students may enroll in the entire series, A, B, C but are not required.

ADVANCED VOCATIONAL AUTO TECHNOLOGY I and II

This course is designed to train persons interested in becoming automotive technicians. Experience will be gained by completing performance objectives and performing various service repairs on customer's cars. Course A: The first term covers shop safety, tool usage, automotive brakes, and service of tires. Course B: The second term covers basic electronics, batteries, alternators, starters, and circuit service procedures. Course C: The third term covers ignition systems, basic fuel operation, and fuel injection system service and operation. +It is recommended that students complete Course A before taking Course B & C ADVANCED VOCATIONAL AUTO TECHNOLOGY II This course is a comprehensive auto service training program designed for the student interested in a career in the automotive service trades. Advanced auto service and repair techniques are taught. Course A: The first term covers shop safety, equipment usage, front-end alignment, advanced fuel injection, and OBD II operation and service. Course B: The second term covers computer scanners, advanced engine performance, diagnostics, and maintenance procedures. Course C: The third term covers clutch and transmission service as well as theory of powertrain operation and service of rear ends and transaxles.

ADVANCED VOCATIONAL BUILDING TRADES I and II

Building Trades classes are designed to give the students on-the-job experience of many skilled trades through the actual construction of a house. The students should learn all concepts of construction from foundation to the finished house. The trades include masonry, carpentry, electrical, plumbing, drywall and roofing. The students will work in small groups with assigned tools and through this group they will learn responsibility, cooperation, and how to work with others. These courses are cyclical in nature and may overlap depending on the status of the house. **ADVANCED VOCATIONAL BUILDING TRADES II** The class will allow students to complete the interior finish of a house using electric, pneumatic and hand tools. Students will also be involved in group leadership of the students in Advanced Building Trades I rough construction projects. Objectives: To install moldings, vents, doors, cabinets, counter tops and all needed trim, stain and varnish all trim work to a pleasing finish, install laminates, install finished electrical fixtures, install plumbing fixtures, assume leadership qualities as needed, install tile and carpeting, follow directions of building inspectors as to code for obtaining an occupancy permit for finishing the house. These courses are cyclical in nature and may overlap depending on the status of the house.

ADVANCED VOCATIONAL BUILDING TRADES III

This course provides hands-on instruction in blueprint reading, building codes, use of documents on the job site, cost analysis and advanced rough and finish skills. The student will provide assistance to help other students achieve Building Trades objectives. This student will also be introduced to in-depth studies of building trade concepts, related to occupations. The successful student will have the opportunity to experience a seamless school-to-work transition. +It is recommended that students complete Course A before taking Course B & C.

ADVANCED VOCATIONAL MECHANICAL DRAFTING I and II

This course is designed to introduce the student to skills used by drafters working in a industrial setting. Key aspects learned will prepare students for an entry-level position in a drafting field. Students will utilize state-of-the-art CAD equipment and software necessary to create and edit industry standard 2-D drawings. Course A: This term will cover mechanical drawings, basic Geometry, welding and machining applications, as well as surface development. The student will improve their skills using standard board drafting applications and apply that knowledge toward Computer Aided Drafting in the form of AutoCad. Course B: The second term will cover the development of brackets and gears, generate graphic charts and diagrams, and cover the fundamentals of Map Drafting and Architectural Drafting. Students will continue to improve their knowledge of AutoCad on the computers. Course C: The third term will focus primarily on the students own areas of interest, backed with knowledge acquired through the first two terms. Personal interest, individual personal projects, and self-development will be stressed. **ADVANCED VOCATIONAL MECHANICAL DRAFTING I** Students will gain work experience and refine their skills on the drafting board and computer drawings (using AutoCAD) including 3D and solid modeling. They will design and build models of architectural and automobile projects. Course A: The first term will cover the design

process as it pertains to jig and fixtures design, die design, auto & auto parts design, which will be illustrated by drawings to be completed by the students. Course B: The second term students will design and build models of architectural and automobile projects including renderings. Course C: The third term will focus primarily on going further into the automotive design and allowing the students to venture freely and create their own vehicle (body, parts, etc.).

ADVANCED VOCATIONAL MACHINE TRADES I and II

Advanced Machine Trades I is a course in which emphasis is placed on accuracy and planning machining operations. Students will be required to work to close tolerances, while learning more complex setups and machining operations on standard toolroom machinery. Course A: This course covers shop safety, precision layout, and multiple machining operations. Students will use complex setups and close tolerance machining. Course B: This course is a continuation of Course A. Students will expand their skills in precision machining and setup with more advanced projects. Course C: This course combines skills learned in Course A and Course B. Students are required to complete more challenging and in-depth projects. **ADVANCED VOCATIONAL MACHINE TRADES II** The programming of computer controlled machines (CNC) and more complex functions are included. Course A: This course covers safety and the introduction to the CNC milling machine. Students will learn how to program the machine with codes. Course B: This course is a continuation of Course A. Students will expand their skills in more advanced programming and machining. Course C: This reinforces the use of CNC machining and programming. Students will write programs, program the machine, and successfully machine the program.

ADVANCED VOCATIONAL WOODWORKING I and II

This course has been designed to introduce students to the tools, equipment and technologies used in woodworking, furniture construction and design. With a strong emphasis in Early American Colonial, Shaker and Mission style crafts. This will also enhance the student's historical awareness and appreciation of the art of woodworking. **ADVANCED VOCATIONAL WOODWORKING II** This course has been designed for students who have demonstrated advanced skills on tools, equipment, and technologies used in woodworking. Students will complete advanced projects that can be entered in competitions.

APPLIED VOCATIONAL TECHNOLOGY EXTERNSHIP

Students will obtain actual on-the-job training for credit and a grade. The training station must be in the Applied Technology occupation area and the student must be employed for a minimum average of 15 hours per week. Students are selected in January of their junior year. Students must secure a related industrial job either through their own resources approved by the coordinator or through leads provided by the coordinator at the beginning of the school year. Co-op students must be enrolled in Applied Technology. If job placement is not completed in the first two weeks of school, the student will be rescheduled into the regular school day. Other schedule adjustments can be made as job placements become available.

ACCOUNTING & FINANCIAL SYSTEMS I and II

This course teaches students the basic accounting skills necessary for managing and maintaining financial records for small businesses, as well as an understanding of the accounting process. Students will learn how to record business transactions as debits and credits in T accounts and ledgers. Students will also learn how to journalize, create balance sheets, balance bank statements, manage payroll, and many other accounting functions for a small business. This will be one of the 2 courses that complete a program of study in the Finance Pathway. ACCOUNTING & FINANCIAL SYSTEMS II This course teaches students accounting skills necessary for managing and maintaining financial records for partnerships, nonprofit organizations, departmental businesses, and corporations. Students will learn how to do inventory planning, journalize depreciation, calculate and journalize dividends for corporations, prepare budget reports and financial reports. This course is for students who are considering careers in accounting, marketing, management, and business administration. This will be one of the 2 courses that complete a program of study in the Finance Pathway.

WEB DESIGN

This course will be part of the web design team for Roseville High School students will keep the website updated for students, staff, parents, and community. The use of digital cameras, camcorders, scanners, and the Internet will make this possible. A popular web design program will be used. This will be the class that completes a program of study in the Information Technology Pathway.

MARKETING EDUCATION

Marketing Education is the study of business functions such as management, distribution, product/service planning, promotion, purchasing, selling, math, business ownership, and much more. It is a class in which part of each day is spent working for the school store, "THE PANTHER DEN". This provides students with a "hands-on" experience in business. This will be the class that completes a program of study in the Marketing Pathway.

MARKETING EDUCATION EXTERNSHIP AND RELATED CLASS

This course will provide students with on-the-job training for credit and a grade. Students will be employed at a training station for a minimum average of 10 hours per week. Generally, students are selected during the second half of their junior year. They must secure a marketing job either through their own resources or through leads provided by the coordinator at the beginning of the school year.

BUSINESS EXTERNSHIP

Students will obtain actual on-the-job training for credit and a grade. The training station must be in the business occupations area and the student must be employed for a minimum average of 10 hours per week. Students are generally selected during the second half of their junior year. They must secure an office job either through their

own resources or through leads provided by the coordinator at the beginning of the school year. Students must have had or be enrolled in any of the Business Department classes.

HEALTH OCCUPATIONS

Health Occupations is designed for students who will be pursuing a medical career. Guest speakers will enhance the understanding of training required and duties of several medical professions. Students will learn how to take vital signs and will also learn CPR and First Aid skills. The classroom is equipped like a clinic: role-playing exercises are performed with an emphasis on physical therapy, nurse aide, medical assistant, and dental assistant skills. However, exploration into a multitude of careers are explored. Employability skills are also learned.

DENTAL ASSISTING

This course prepares students for employment as a dental assistant. Skills learned will include dental terminology, dental anatomy, instrumentation, sterilization of instruments, charting oral conditions, and mixing dental materials. Second year students will continue classroom and lab activities in conjunction with a work-site placement in a dental office.