



Chippewa Valley Schools  
19120 Cass Avenue  
Clinton Township, MI 48038

# Lakeview Pubic Schools

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## **GENERAL BUSINESS**

General Business will introduce you to the world of business. Through the information and activities in this course you will increase your ability to be a knowledgeable consumer, well-prepared employee, and effective citizen in our economy. This course will serve as a background for other business courses you will take in high school and prepare you for future employment or business ownership, and make you a better informed citizen. We will cover many topics you will encounter throughout your life as a consumer, worker or business owner, and citizen. General Business is an important part of the secondary business curricula and makes vital contributions to the education of students who are preparing for business careers after graduation.

## **PERSONAL FINANCE**

Personal Finance will introduce a number of basic skills needed to be financially secure in life. This course is broken down into six major units: Investing, Insurance, Banking, Budgeting, Major Purchases, and Taxes. You will be working on a number of fun and interesting projects throughout the course of the semester and will be engaged in real world mathematical applications.

## **COMPUTER APPLICATIONS I and II**

Computer Applications I is designed to give students a hands-on experience with a variety of computer concepts including, but not limited to, word processing, spreadsheets, graphics, and presentation software. Through the use of teacher demonstrations, collaborative instruction, critical thinking activities, and interdisciplinary and/or culminating projects, students will gain functional knowledge of computer use in society. COMPUTER APPLICATIONS II Computer Applications II is an advanced course designed to reinforce and increase the depth of understanding for a variety of software programs including, but not limited to, Word, Excel and Access. Using a hands-on approach, students will develop skills in employment, problem solving, presentations, organization and communication. The course is designed to prepare students for employment in today's business environment and prepares students for the Microsoft Office Specialist (MOS) exam.

## **OFFICE PRACTICE**

Office Practices is a fun project oriented class designed to develop the skills needed to perform in any office environment. The class is split into four main units about 3-4 weeks each. Some of the skills you will be expected to master include: filing, word processing, spreadsheets, internet research, mailings, phone use, and office technology. About 90% of the time, we will be in the computer lab working on various projects.

## **ACCOUNTING I and II**

Students will learn the complete accounting cycle. This beginning course will teach accounting procedures for the sole proprietorship and partnerships. Manual and automated competency will be exhibited in journalizing and posting transactions; reconciling a bank statement; completing a work sheet; creating a trial balance, balance sheet, and income statement; adjusting and closing entries; and implementing petty cash and payroll procedures. ACCOUNTING II Students will expand their knowledge of manual and automated accounting procedures with emphasis on partnership and corporation accounting practices. Decision-making skills in budgeting, departmental accounting systems, payroll procedures, and simulated accounting experiences will be emphasized.

## **MARKETING PRINCIPLES**

Marketing is the process of planning, promoting, selling, and distributing ideas, goods, or services to create exchanges that satisfy customers. Students will explore the foundations of marketing by relating their experiences as consumers and applying them in creative ways through case studies and projects.

## **WEBSITE DESIGN**

Web Design is an opportunity to combine creativity and technical skills. Students will learn the principles of web design by creating several web pages and sites throughout the semester using HTML, Cascading Style Sheets (CSS) and Microsoft Front Page. An introduction to page layout, graphics manipulation, color theory, tables, and forms will be covered. Students enrolling in this course need a working knowledge of the Windows operating system and the personal computer. This course is not intended to be a first course in computing.

## **TECHNOLOGY EDUCATION**

This is an introductory course in the use of the computer in various technologies. Topics to be covered include: designing and inventing things; automation; energy resources; transportation systems; and, biotechnology. Students will complete at least one major project each marking period. Typical Projects have included: Sextant Model and Analysis; Egg Bungee Drop; Aerodynamics; Bridge Design; Spaghetti Project Design; Tower Building and, Trebuchet Model.

## **AUTOMOTIVE FUNDAMENTALS**

Students interested in the mechanical workings of the automobile and would like to build their knowledge before pursuing vocational automotive course work should take this course. It is open to any student in their freshman, sophomore, or junior year. The course will offer both lecture/demonstration and hands-on-lab/bench work experiences. Student will explore career opportunities and familiarize themselves with the parts and operation of an internal combustion engine.

## **AUTOMOTIVE SYSTEMS**

Students interested in the mechanical workings of the automobile and would like to continue to build their knowledge before pursuing vocational automotive course work should take this course. This course will offer lecture/demonstration and hands-on lab/bench work experiences. After learning the parts and operation of a typical internal combustion engine, students will continue in-depth study of the various automotive systems (cooling, lubrication, fuel, electrical, charging, and starting) systems. Students will continue to use basic tools and practice shop safety.

## **AUTO TECHNOLOGY I and II**

This class can be for the vocationally oriented student who is hoping to go into the automotive field or the student who is looking to become less dependent on others and learn how to save money and service his/her own vehicle. This class gives an in-depth look at basic automotive systems, safety, tools, maintenance, basic electrical, brakes and braking systems, and steering and suspension. Instruction is presented in a hands-on approach and with classroom discussion. Students will have the opportunity, if they choose, to perform work on their own vehicles. This class will give students the experience they need for possible state licensing. AUTO TECHNOLOGY II This class is vocationally-oriented course and begins where the Auto Technology I class ended. It gives an in-depth look at electrical and electronic systems, heating and air-conditioning, automatic transmissions, manual transmissions, and drivetrains. Instruction is presented in a hands-on approach and with classroom discussion. Students will have the opportunity, if they choose, to perform work on their own vehicles. This class will give students the experience they need for possible state licensing.

## **AUTO TECHNOLOGY III**

This class is vocationally-oriented course and begins where the Auto Technology II class ended. It gives an in-depth look at advanced electrical and electronic systems, engine repair, & engine performance. Instruction is presented in a hands-on approach and with classroom discussion. This class will give students the experience they need for possible state licensing and an entry level position in the automotive field. Students can also use this as an avenue to the cooperative education program where the student works, gets high school credit, and earns money. Qualified students may be eligible for articulated credit with Macomb Community College, Northwestern Ohio, and UTI (Universal Technical Institute)

## **AUTO TECH EXTERNSHIP**

This opportunity is to apply the skills and knowledge that is learned in the classroom and applied objectives learned in Lakeview's Auto Shop to a real world working situation. Students must have had at least one full semester of Auto Technology III and still be enrolled in Auto Technology III. Students are required to find an automotive related business placement and be approved by the instructor.

## **INTRODUCTION TO DRAFTING AND DESIGN 1A and 1B**

This class is an introduction to 3-Dimensional Modeling using 3-Dimensional Software. Through hands-on computer projects, students will learn about different career pathways. Drafting fundamentals and techniques will be introduced. Employability skills will also be introduced. Upon completion of this course, students can choose to continue to develop CAD skills in CAD 1B or if available may select either Engineering Drafting or Architectural Drafting courses, and begin to specialize in the chosen field of study. INTRODUCTION TO DRAFTING AND DESIGN 1B This course pursues continued development of multiview drawing and CAD skills. There will be more opportunities to develop individualized projects that the student is interested in and really grasp the advanced concepts of the various CAD software. Upon completion of this course, students may select either Engineering Drafting or Architectural Drafting courses, and begin to specialize in the chosen field of study.

## **ENGINEERING DRAFTING I and II**

This course will advance 3D parametric modeling skills according to industry best practices. Students will learn about the design process by creating projects from concept to part. The students will advance their skill set through exposure to a range of drawing problems that include: complex orthographic and 3D pictorials; sectional views; auxiliaries; and developments. Emphasis will be placed on measurement, sketching, and drafting of views necessary to describe actual parts. Employability skills will continue to be nurtured. Students will begin to gain hands-on skills as found in current industry. ENGINEERING DRAFTING II This course will develop the student's knowledge of the engineering application of CAD drafting. The range of drawing problems will include increased complexity, and advanced assemblies. Student emphasis will be placed on design factors and dimensioning practices for automated and interchangeable manufacturing. CAD projects utilizing 3D drafting techniques will become more complex. Students will learn to develop components in the context of an assembly. Students will continue to gain hands-on skills as found in current industry.

## **ENGINEERING DRAFTING ADVANCED**

This course is project based. With instructor approval, student will choose a project to develop from concept to production. This course will advance the students' skill set by introducing analysis and dynamic simulation techniques. Students will continue to gain hands-on skills as found in current industry. Employability skills will continue to be nurtured.

## **ARCHITECTURAL DRAFTING I and II**

This course will extend the student's knowledge of the fundamentals of drafting; including sketching, manual drafting, and CAD drafting. The project-oriented focus will revolve around development of a basic set of construction drawings for a small residence. Preliminary layouts will be sketched, one set of drawings will be manually drafted, and a second set of building drawings may be completed with CAD software. ARCHITECTURAL DRAFTING II This course will continue to develop the student's knowledge of sketching, manual drafting, and CAD drafting. The project-oriented focus will revolve around the design and development of a full set of construction drawings for a custom, mid-sized residence. Preliminary layouts will be sketched, design concepts will be manually drafted, and the final drawings will be completed with CAD software. The 3D capabilities of CAD software will be introduced.

## **ARCHITECTURAL DRAFTING ADVANCED**

This course is project based. With instructor approval, student will choose a project to develop from concept to production. This course will advance the students skill set by introducing analysis and dynamic simulation techniques. Students will continue to gain hands-on skills as found in current industry. Employability skills will continue to be nurtured.

## **ELECTRONIC FUNDAMENTALS**

Students interested in understanding just how electricity and electronics is essential to our modern world should take this course. Students will differentiate between direct current (DC) and alternating current (AC). Students will investigate electronics related careers and history. They will study the importance of magnetic and chemical sources of electricity and their relevance to our current needs for alternative energy. Students will analyze basic circuits through Ohm's law and Watt's Law and apply mathematical problem solving to verify and predict electrical measurements. Students will have the opportunity to work on projects in the electronics lab.

## **BASIC ELECTRONICS**

Students interested in pursuing the applications of electrical and electronics careers through study and use of components, wiring of circuitry, measuring, analyzing and troubleshooting should take this course. Students will analyze DC circuits and learn AC theory. They will investigate applications of magnetic devices such as generators and motors, and complex electrical circuits through laboratory study and computer software. They will solve practical mathematical problems, and use electrical measuring devices such as the digital multimeter. The students will have an opportunity to work on projects such as the wiring of home electrical circuits.

## **Marketing and Sales**

Course content will include marketing functions, careers in marketing, customer service, inventory control, visual merchandising and display, market segmentation, economics,

business ownership, international trade, management structures, selling, promotional mix, distribution, advertising, packaging and labeling, market research, business financing, pricing strategies, product placement, product features and benefits, business ethics/social responsibility, creating a business plan, basic accounting principles, and advanced store operations. This course gives the student advanced training in marketing and sales through a hands-on experience operating the LSHS School Store. Articulation agreement aligned with Baker College (see instructor or your counselor for college credit information).

## **Mechanical Engineering - Design Studio I**

Multi-views, auxiliary views, section-views, isometric drawings, micrometer and caliper reading, 3D solid modeling with CATIA. Design Studio (Mechanical Engineering) is designed for someone pursuing a career in mechanical engineering, CNC programming, CAD Design and vehicle design. Students will create presentation drawings and master the skills through various projects, including the roller coaster project, Hovercraft and RC car building.

## **Mechanical Engineering**

Automotive history, body design styles, mechanics, descriptive geometry, body design layouts, presentation skills, presentation drawings, automotive marketing and finance, CNC programming and CAD/CAM. Students in all areas will have the opportunity to compete in local and/or national competitions and team building projects. Students study the three areas of the vehicle design industry; design, engineering and art studio work. Students will learn how an automobile/engine works through various projects including 3D engine model and the Build Your Dream Vehicle competition. Students will continue to use CATIA and prepare for careers in the automotive design fields. This program also has integrated the opportunity to attend ATAP 2310 CNC Mill G&M Programming & CNC Machining at Macomb Community College during class time (where students have an opportunity to earn up to 2 college credits).

## **Medical Careers I and II**

Course content will include career exploration, recording and reading vital signs/assessments, cardio and respiratory systems, CPR and First Aid, employability skills/professional standards, medical terminology and abbreviations, universal precautions and infection control, musculo-skeletal systems, and patient transport and ambulation. This course is designed for goal oriented students who plan on further education after high school and who will be pursuing a career as a physician assistant, physical therapist, occupational therapist, nurse, dentist, veterinary medicine, emergency medicine, and/or other medically-related fields. Topics specific to various medical careers will be learned. Educational and licensure requirements for medical careers will be addressed through various venues. Articulation agreement aligned with Ferris State University and Baker College (see instructor or your counselor for college credit information). Medical Careers II Course content will include career exploration, recording and reading vital signs/assessments, cardio and respiratory systems, CPR and First Aid, employability skills/professional standards, medical terminology and

abbreviations, universal precautions and infection control, musculo-skeletal systems, and patient transport and ambulation. This course is designed for goal oriented students who plan on further education after high school and who will be pursuing a career as a physician assistant, physical therapist, occupational therapist, nurse, dentist, veterinary medicine, emergency medicine, and/or other medically-related fields. Topics specific to various medical careers will be learned. Educational and licensure requirements for medical careers will be addressed through various venues. This course offers an on-site externship in a hospital setting. Student MUST commit to this portion of the program in order to participate. Articulation agreement aligned with Ferris State University and Baker College (see instructor or your counselor for college credit information).

## **Introduction to Television Broadcasting**

Course content will include equipment/technical skills, staff positions/chain of command, production duties and responsibilities, teamwork skills, vocabulary/technical talk. Students will gain an overview of a functioning television production system, the major pieces of television equipment, and the operation and function of production personnel.

## **Television Broadcasting I and II**

Course content will include script writing, story boarding, edit shot list, styles of video, pre-production, production, post production phases, camera operations, editing techniques, studio productions, special effects, and graphic designs. Students will study and develop techniques and disciplines of television production, as well as improve communication skills. Students will have the opportunity to produce videos for the school and community. The focus will be on performance, script writing and technical skills as they relate to news broadcasting. Students will investigate research, write and report news stories. Television Broadcasting II Course content will include script writing, story boarding, edit shot list, styles of video, pre-production, production, post production phases, camera operations, editing techniques, studio productions, special effects, and graphic designs. This course is a continuation of Television Broadcasting I. Students will gain an advanced overview of a functioning television production system, the major pieces of television equipment, and the operation and function of production personnel.