Flint Hills Technical College – AY2023 Online Excel in CTE Courses

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Course Code	Course Name	Course Description
Business Administrative Technology Program (This program is completely online.)		
BUS 113 O	**Business Accounting**	Students will learn to process accounts in service and merchandising industries by applying concepts and theory to worksheets, financial statements, adjusting entries, closing entries, and by using multiple journals, and processing payroll and payroll taxes for employee and employer. Students learn skills and understanding that require creative and critical thinking to problem solve. Students also learn through communication activities to better understand the accounting process and use the GAAP rules that apply to ethical decisions. Students learn by recording transactions and preparing proper financial reports through manual and automated accounting on the computer.
BUS 131 O	**Computer Applications**	This course is an introduction to computing with emphasis on improving productivity and communication through the effective use of available technology. Students will acquire computing skills to increase personal productivity in problem-solving, critical thinking and information management through the use of available software packages designed for office applications and telecommunications.
BUS 132 O	**Office Procedures**	Students will develop skills and knowledge designed to prepare them for an administrative support role in an office for the twenty-first century office. Students through hands-on activities, Internet activities, presentations, and group activities will learn to be a productive member of an office team, develop skills in technology, communication (written and oral), and critical thinking, teamwork, interpersonal, and leadership (soft skills).

BUS 134 O	**Leadership Development**	This introductory course will actively engage students in the acquisition of information about leadership, including an enhanced understanding of self and human relationships; communication skills, group dynamics, and team concepts; basic concepts of leadership theory and organizational development; and the ability to integrate concepts with applications to current and future leadership situations. Self-evaluations, team projects, case studies, scenarios, field exercises, and class discussions are the major components of this course.
BUS 135 O	**Intro to Business**	Survey of the field of business management, marketing, finance, data processing, and accounting; variety, nature, and interrelationship of problems of business operation
BUS 136 O	**Outlook**	This course is for you to pass your Microsoft Office Specialist (MOS) Outlook 2013 certification exam.
BUS 137 O	**Marketing**	This course is an integrated and analytical approach to the study of the marketing functions. It includes the means and methods of marketing policies, flow of goods, government influence, and trends in the marketing function.
BUS 139 O	**Internship I**	This course is for you to secure internship employment and demonstrate skills required for successful performance. You must display the ability to communicate effectively with others (co-workers, other students and the instructor) and to perform job tasks accurately and efficiently.
BUS 212 O	**Business Communications**	Students will learn successful writing techniques and evaluation tools for effective communication in the workplace. Students will learn both effective communication principles and the use of current technology to succeed in a high-tech, global work environment in written and oral communication and presentations. Prerequisites: BAT 124 Business English,
BUS 217 O	**Management**	This course is an introduction to organizations; how the individual relates to the basic management functions of planning, organizing, leading, and controlling.
BUS 218 O	**Business Law**	This course surveys the field of business law. Topics given special consideration are law of contracts in general, law of sales, negotiable instruments, and bailments. This course is based on the Universal Commercial Code and is designed to help the student avoid basic problems and to know when to ask for professional help
BUS 219 O	**Financial Accounting**	Financial Accounting covers five major segments of accounting. The first is a study of different groups of balance sheet accounts, including notes, accounts receivable, merchandise inventory, and plant assets. The second is an in-depth coverage of accruals and deferrals of both revenue and expenses. The third segment of the course moves into different forms of ownership, specifically, the partnership and the corporation. Following is a study of the statement of cash flows and the process of analyzing financial statements. The final part of the course studies a business in its segments, focusing on cost accounting systems and the analysis of costs

BUS 222 O	**Computerized Accounting**	Students will extend and apply their knowledge of accounting by using computer software such as QuickBooks. Students will participate in hands-on activities in QuickBooks to maintain a general ledger, track vendor, customer, and inventory activities; process payroll for company employees, prepare bank reconciliations, track time for employees and jobs, customize the appearance of reports and invoices, view graphs, export information in Excel and Word, and utilize the memorizing features of QuickBooks. Prerequisite: BAT 113 Business Accounting
BUS 229 O	**Database Management**	This course provides students with an understanding and use of relational database software in a realistic business environment. Topics include: relational database objects, enhancements of forms and reports, analysis and manipulation of data, and integration of database software with other software programs. This course may be used to prepare for MOS Access Certification. Prerequisite: BAT 101 Keyboarding
BUS 242 O	**Entrepreneurship**	This course covers the fundamentals required to understand the management of a small business and the considerations that must be made in forming a new business. Topics covered in this course include startup options, capital acquisition, facilities planning, human resource management, financial management, and business plan development.
BUS 243 O	**Excel for MOS Certification**	This course is designed for students to develop advanced skills in Microsoft Excel. Students will complete hands-on computer projects that relate to the Objective Domains of the Microsoft Office Specialist exam for Microsoft Excel.
BUS 244 O	**Word for MOS Certification**	This course is designed for students to develop advanced skills in Microsoft Word. Students will complete hands-on computer projects that relate to the Objective Domains of the Microsoft Office Specialist exam for Microsoft Excel.
BUS 252 O	**Access for MOS Certification**	This directed study is a structured learning experience offered as an extension of the regular curriculum. It will provide students with instruction in advanced skills using Microsoft PowerPoint in a business environment. It is intended as a supplement to BUS 27131 to prepare students for the Microsoft Office Specialist PowerPoint exam.
BUS 253 O	**PowerPoint for MOS Certification**	This course is designed for students to demonstrate advanced skills in Microsoft Access. Students will prepare by hands-on computer projects relating to particular objectives of Microsoft Access core/ advanced objectives to
Health Field		

EMS 108 O	**Hazmat**	This course is designed for individuals who may be first responders to hazardous materials (HAZMAT) incidents within the course of their work in emergency services. First Responders at the Awareness level understand HAZMAT terminology, recognize and identify, and contact appropriate agencies for containment.
EMS 119 O	**Medical Report Writing**	Students will learn successful writing techniiques and evaluation tools for effective communication in the workplace. Students will learn both effective communication principles and the use of current technology to succeed in a high-tech, global work environment in written communication and presentation.
HHS 101 O	**Human Growth & Development**	This course offers information concerning normal physical, psychological, and social developmental changes that occur during a person's lifespan from birth to death. The student will learn specific information identifying factors, which influence human development and changes within family structure. The student will also learn strategies to assist individuals and/or families dealing with crisis such as hospitalization.
HHS 119 O	**Nutrition**	Students will identify, describe and discuss the various nutrients essential to promoting growth and maintenance of the human body. Students will learn about the relationship of nutrients as related to food and the ability of the body to utilize it. Students will learn about nutrition at various life stages including pregnancy, infancy, adulthood and late adulthood.
HHS 115 O	**Medical Terminology**	Students will demonstrate knowledge of medical terms, word roots, abbreviations and definitions commonly used in the healthcare professions.
Multimedia Design Program (This program is completely online.)		
MMD 120 O	**Principles of Computer Graphics**	This course will focus on a variety of multimedia and computer based graphics fundamentals. These core concepts will be built upon in future Interactive Multimedia Design courses at FTHC. Students will begin by defining multimedia and exploring how computer graphics have evolved over the years. Visual communication, usability and interactive design concepts will be introduced. Static and time-based media will be explored as well as industry standard terms and concepts relating to computer based graphics.
MMD 125 O	**Digital Storytelling**	Telling a story through a digital medium presents many challenges and opportunities. Students will learn to combine technical skills with the art of storytelling. Experimenting with a variety of sound, still image, and video editing tools, students will learn to choose the right tool for the job. Students will develop storytelling skills including brainstorming, storyboarding, and developing a digital story. Opportunities to use digital stories in corporate training environments, classrooms, entertainment, game development, and other avenues will be discussed as well as the future of digital storytelling.

MMD 131 O	**3D Graphics and Animation I**	In this course, students will be introduced to concepts in computer modeling and basic animation. Students will complete a project that involves creating standard primitives, polygon modeling, creating materials, lights, and cameras, and finally, animating and rendering a scene. The concept of keyframing will be discussed in detail and the use of Autokey and Set Key modes in 3ds Max. Important techniques in file management and maintenance on the computer workstation will also be covered.
MMD 140 O	**Digital Video Production I**	Students will be introduced to the basics of videography, the use of tripods and camera heads, lighting, and microphone usage. Basic editing will also be covered. Students will gain hands experience in shooting, composition and editing. The art of storytelling through the use of visual imagery will be covered. The audio portion of a video project will also be introduced, including use of microphones, audio processing software, noise reduction and compression.
MMD 150 O	**Photoshop for Multimedia**	During this course, students will be introduced to Adobe Photoshop and discuss visual communication as a multimedia professional. We will start by getting to know the workspace, tools and panels available in Photoshop. Next, we will explore selection techniques, painting and retouching, layers, smart objects, and filters. Concepts such as RGB vs. CMYK, image resolution, and file formats will be discussed. Finally, we will look at how to effectively create images for web, video, and other multimedia products.
MMD 161 O	**3D Graphics and Animation II**	Animation II focuses on the basic principles of animation. Students will learn a variety of new techniques to control animation and make it look more realistic. Tangent types, dope sheet, curve editor and adjusting the timing of animation will be explored. Inverse Kinematics will be introduced as well as animating a Biped figure. The modeling, texturing, lighting, and camera skills learned in Animation 1 will be applied to projects during this course. Prerequisites: IMD 120 Principles of Computer Graphics, IMD 125 Digital Storytelling, IMD 131 3D Graphics and Animation I, IMD 150 Photoshop for Multimedia
MMD 170 O	**Digital video Production II**	This class will explore techniques to improve your digital video productions including workflow, shooting, and non-linear editing techniques. Preproduction tasks such as brainstorming, working with clients, and storyboarding will be practiced. Students will be introduced to new equipment including, dollies, jibs, glide-cams, DSLR cameras for video, and external monitors. Students will experiment by shooting “short films” to improve their storytelling abilities and shooting techniques. A marketing based video will be produced for a “real-world” client as a team project for the semester. Prerequisites: IMD 120 Principles of Computer Graphics, IMD 125 Digital Storytelling, IMD 140 Digital Video Production I, IMD 150 Photoshop for Multimedia

MMD 180 O	**Interactive Multimedia I**	This course will introduce students to Adobe Flash Professional. Students will learn to create vector-based artwork with the tools available in Flash. Importing artwork created in other programs such as Adobe Photoshop and Adobe Illustrator will also be explored. The principles of animation, using the timeline, frames, keyframes, and tweening will be introduced. Students will be introduced the Action Script, the programming language that allows you to design animations that are interactive. Finally, students will practice exporting an animation for a variety of end products. Prerequisites: IMD 120 Principles of Computer Graphics, IMD 125 Digital Storytelling, and IMD 150 Photoshop for Multimedia
MMD 181 O	**Compositing and Lighting**	This course will introduce the concepts of instructional design and how it relates to the multimedia developer. Students will follow the ADDIE model to assist in designing effective multimedia-based instructional materials. The final project will require students to apply what they have learned and create a real-world, multimedia-based learning object. Education and career opportunities in the instructional design world will also be discussed. PREREQUISITE: MMD 120 Principles of Computer Graphics; MMD 150 Photoshop for Multimedia
MMD 190 O	**Compositing**	Students will learn Adobe After Effects and create basic composites, as well as nested composites. They will gain hands on experience combining visual elements through techniques such as “green screen” and combining layered elements in the computer. Creating keyframes on the timeline, masking effects, movable mattes and text animation will be covered, along with selecting the correct resolution and file format to be handed off to the next step in the production pipeline. Students will also discuss the ethical issues involved with compositing. Prerequisites: IMD 120 Principles of Computer Graphics, IMD 125 Digital Storytelling, IMD 140 Digital Video Production I and IMD 150 Photoshop for Multimedia
MMD 222 O	**Compositing II**	Compositing II will give students the opportunity to expand upon their compositing and animation skills in Adobe After effects. Students will continue to develop their keying, animating, masking, keyframing, and compositing skills. More advanced projects including logo animation and show intro animations will be worked on. Controlling animation through “expressions” will also be introduced. The composites created in this course will be used to supplement projects in the Digital Video Production courses as well. Students will learn to develop a practical “workflow” when working in multiple software packages to complete a project. Prerequisite: IMD 190 Compositing I
MMD 230 O	**Interactive Multimedia II**	This course picks up where IMD 180 Interactive Multimedia leaves off and continues more in depth with Action Script – which is the programming language for Flash. Knowledge of Action Script is a must for control of nearly all advanced features in Flash. Student will focus on creating more complex and interactive projects in Flash. Prerequisite: IMD 180 Interactive Multimedia I

MMD 240 O	**Multimedia Project Design**	Students will take on the role of Multimedia Project Manager in this course. Various team member roles will be discussed as well as planning, costing, designing, producing, and delivering a final product to the client. A fictional client and multimedia project will be given to each student. Students will form a plan, design a budget, set milestones, define deliverables, write a client proposal, create a production schedule, "hire" talent and crew, produce, and deliver the final product, all within the proposed budget. Prerequisite: Completion of Technical Certificate
MMD 252 O	**Advanced Media Production**	Advanced Media Production will focus on Live Streaming, Broadcasting, and Unmanned Aircrafts. Learn the history of Livestreaming, Broadcasting and focus on the technology of livestreaming and how it is used in today's businesses. Students will also gain the knowledge to pass the FAA Unmanned Aircraft test. Understanding the rules and laws that exist to help you fly safely in the national airspace that is required to fly an Unmanned Aircraft as a hobbyist or for commercial use. PREREQUISITE: IMD 170 Digital Video Production II, IMD 230 Interactive Multimedia II
MMD 260 O	**Production Portfolio**	Students will create a portfolio to showcase their work as a multimedia artist. The form of the portfolio can take on many forms including but not limited to a show real, hard copy of graphics, DVD, website, or a combination of many delivery methods. Students will include work created during their time in the IMD programs as well as other work they have created relating to multimedia. Prerequisites: Completion of Technical Certificate
MMD 270 O	**Project Management and Client Management**	Students will take on the role of Multimedia Project manager in this course. As Project Manager, students will design a multimedia project. Students will plan the project and include cost, designing, producing, and deliver the final project to the client. In doing this, students will write a project plan, create a client proposal, develop a storyboard, and submit a final multimedia project. Prerequisite: Competion of Technical Certificate
MMD 285 O	**Digital Video Production Projects**	Students in this course will produce one or more video projects that they choose, plan, and produce on an individual basis. They will be in control of all aspects of the workflow from concept through delivery of final product(s). New equipment and advanced shooting techniques will be experimented with throughout the semester. The focus will be on the application of skills learned in Digital Video Production 1 and 2 as well as developing new skills in planning, shooting and editing video. PREREQUISITE: MMD 170 Video Production II; MMD 222 Compositing II; MMD 240 Multimedia Project Design
Computer Program Design (This program is completely online.)		

CPD 124 O	**Leading Edge Web Design Fundamentals**	In this course, students will assess, develop and utilize computer programming to construct World Wide Web pages using the HTML5 and XHTML language which are stricter versions of HTML. These forms of HTML are created and designed to address many of the problems associated with the different and competing versions of HTML and to integrate much better with XHTML and XML. Students will advance their skills in developing Internet communications using a Windows-based text editor. Topics that will be analyzed and developed include Web Browsers, Uniform Resource Locators, HTTP protocol, FTP, CSS3 and mobile development. Students will also advance their skills in the use of apps for mobile devices.
CPD 125 O	**Leading Edge Web Design Advanced**	In this course, students will assess, develop and utilize computer programming to construct World Wide Web sites using Adobe Dreamweaver CC which is an integrated Web development environment that helps create integrated and interactive web sites. Topics that will be analyzed and developed include Website Design Principles, Web Browsers, Uniform Resource Locators, HTTP protocol, ActionScript, FTP, XHTML, HTML5, FLASH, FIREWORKS, Android concepts, mobile web application standards, and CSS3. As web content has evolved, more advanced sites incorporate graphics, animation, forms, layers and JavaScript to make these elements active. Dreamweaver generates JavaScript and allows developers to make web sites more visually and textually interactive. Students will continue to advance their skills in the use of apps for mobile devices.
CPD 126 O	**Program Logic & Design**	Students will utilize introductory structured programming logic to begin building structures, functions, methods, and classes. This course will stress flowcharting and pseudocoding as the means of problem solving basic programming problems and as a means of designing basic structured programs. This course is the foundation for all the language courses and students build a beginning knowledge of programming structures, processes, and tools.
CPD 130 O	**Mobile App Development**	CPD 130 is an advanced class that will require the students to utilize their developed skills to create a dynamic mobile Application with a creative front-end, a robust back-end and a database to support the whole. It will also introduce the student to XML, Android Studio and Monetizing apps. The class will emphasize drawing on the skills gained in earlier classes and applying them into a cohesive whole.

CPD 131 O	**Advanced SQL**	Students learn how to create and maintain database objects and how to store, retrieve, and manipulate the data. Students also create SQL blocks of application code that will be shared by multiple forms, reports, and data management in many different applications. Students learn many different types of query development using aggregate functions, sorting options, subqueries, grouping, having, nulls, joins, set operations, views, indexes, and security. Students learn how to apply this to high-end databases like MYSQL, Oracle and SQL Server and to incorporate SQL into computer programs
CPD 132 O	**Beginning C#**	C# Programming is designed as an introduction programming course. Students will develop and apply programming concepts and how to plan and create well-structured programs. They will be able to write programs using the sequence, selection, and repetition structures, as well as how to create and manipulate sequential access files, classes, strings, conditional execution, data types, functions, arrays, and generic collections. C# teaches programming concepts using a framework class oriented approach, rather than a task or command-driven approach. The .NET Framework uses a wealth of libraries for developing applications for the Windows family of operating systems. With C#, students can build small, reusable components that fit with today's Web-based / Database driven programming applications. Students will manipulate programming components using Visual Studio's refined and superior Integrated Development Environment. Students will use realistic cases in creating the programs that will require them to demonstrate program design, problem solving, debugging, and use of effective programming techniques that they will likely encounter in the programming job market.
CPD 222 O	**Java Programming**	Students will develop and apply object-oriented, platform-independent design and programming to create Java applications. Students will code class objects, if…else statements, switches, for and while statements, and learn how to process data using arrays, loops, collections, variables, data types and simple I/O and Inheritance. Students will use Java to create a basic Android mobile application. PREREQUISITE: CPD 122 Program Logic & Design with Alice 3D; CPD 210 Access Database Concepts, Design, & Application; CPD 226 SQL Database Concepts, Design, & Application

CPD 226 O	**SQL Database Concepts, Design & Application**	Students learn how to create and maintain database objects in CPD 226 and how to store, retrieve, and manipulate the data. Students also create SQL blocks of application code that will be shared by multiple forms, reports, and data management in many different applications. Students learn many different types of query development using aggregate functions, sorting options, subqueries, grouping, having, nulls, joins, set operations, views, indexes, and security. Students learn how to apply this to high-end databases like MYSQL, Oracle and SQL Server and to incorporate SQL into computer programs. PREREQUISITE: CPD 122 Program Logic & Design with Alice 3D; CPD 210 Access Database Concepts, Design, & Applications
CPD 229 O	**C# Programming**	C# Programming is designed as an introduction programming course. Students will develop and apply programming concepts and how to plan and create well-structured programs. They will be able to write programs using the sequence, selection, and repetition structures, as well as how to create and manipulate sequential access files, classes, strings, conditional execution, data types, functions, arrays, generic collections, and Linq. C# teaches programming concepts using a framework class oriented approach, rather than a task or command-driven approach. The .NET Framework uses a wealth of libraries for developing applications for the Windows family of operating systems. With C#, students can build small, reusable components that fit with todays Web-based / Database driven programming applications. Students will manipulate programming components using Visual Studio's refined and superior Integrated Development Environment. Students will use realistic cases in creating the programs that will require them to demonstrate program design, problem solving, debugging, and use of effective programming techniques that they will likely encounter in the programming job market. PREREQUISITE: CPD 122 Program Logic & Design with Alice 3D; CPD 210 Access Database Concepts, Design, & Application; CPD 226 SQL Database Concepts, Design, & Application
CPD 230 O	**ASP.NET**	This is the Capstone class for the entire CPD program and will involve applying skills learned throughout the program into a single project. ASP.NET will allow for the student to apply their knowledge from a variety of classes and disciplines to create a dynamic website with a database and code to support it. They will explore the ASP.Net framework as a tool to focus their skills into a single task. Using C#, SQL, HTML, CSS3, and Program logic to design and implement a fully formed website
Network Technology Program		

NET 100 O	**Windows Command-Line Interface Fundamentals**	Students will utilize DOS commands from the Microsoft Windows command-line interface (CLI) to manipulate the operating system and its file system.
Power Plant Technology Program (This program is completely online.)		
PDV 203 O	**Management Principles in Technology**	The student will describe the overall perspective of business and industry and the associated managerial role. The student will be able to utilize practical building blocks for managerial growth. The student will be able to discuss the involvement of future roles for business and industry and outside forces that impact management of an industrial component.
PDV 204 O	**Leadership and Teamwork**	Students will learn and demonstrate the ability to lead and cooperate with effective interpersonal skills, leadership skills, and conflict management skills. Students will identify professional skills and techniques necessary to retain or improve employment opportunities.
PPT 102 O	**Power Plant Equipment Fundamentals I**	Students describe the fundamentals of common types of pumps and valves.
PPT 107 O	**Properties of Materials**	Students identify the properties of metals. Students define and apply the concepts of alloyed metals to power plant equipment. They relate the strength of materials and brittle facture to power plant material problems. Students describe thermal shock/stress, erosion and corrosion and their control.
PPT 108 O	**Power Plant Equipment Fundamentals II**	The students explain the fundamentals of refrigeration, turbines, boilers and piping/tubing components. They also describe the operation of common components found in mechanical systems including valve actuators, air compressors, heat exchangers, diesel engines, strainers and filters. Bearings and the lubrication principles that maintain them in good working condition are described by the student. Students describe the basic principles of process measurement and control actions that are crucial to plant operation and the operation of power plant water treatment systems and equipment. Fall Offering.
PPT 123 O	**Basic Mechanics**	Students will learn the correct and safe methods for using hand and power tools. They will also learn how to properly use torque wrenches. This course includes laboratory exercise. Precision measurement tools are used by the student to determine accurate dimensional readings.
PPT 124 O	**Introduction to Scaffolding**	Introduction to the various types of scaffolding commonly used in power plants. Overview of Industry and Federal standards for scaffolding criteria and use.
PPT 131 O	**Introduction to Power Plant Systems**	Students use selected power plant systems to integrate individual equipment theory and apply fundamental scientific concepts. They analyze system configuration and operation to comprehend the tasks performed by maintenance and operations personnel.

PPT 132 O	**Electrical Equipment**	Introduction to the function, construction and operation of power plant electrical systems and equipment including generators, motors, switchgear and inverters.
PPT 135 O	**Power Plant Physics**	Students identify the standards of measure necessary to compare and evaluate system pressures, temperatures, levels, flow rates and other important power plant operating characteristics. They identify classical mechanical principles that ensure maintenance technicians or operators are able to understand the dynamic changes occurring in power plant mechanical and electrical systems. They contrast fluids and define the relationships between hydraulics, pressure, buoyancy and flow.
PPT 136 O	**Fuel/Water Chemistry and Control**	Students explain the fundamentals of chemistry to include atomic structure and the periodic table, chemical bonding, molecular structure, mixtures, solutions and compounds, and properties and uses of gases. They explain the theory of corrosion chemistry, pH and ion exchangers that are key to power plant water systems. They describe the methods and systems used for water chemistry control. For reactor water chemistry, they analyze the types, sources, effects and control/removal of impurities. Students describe the factors involved with radiochemistry, radiolysis and recombination and hydrogen gas that are essential to reactor water chemistry.
PPT 137 O	**Power Plant Safety & Work Performance**	Students will learn methods of error prevention, workplace ethics and communication skills. The use of personal protective equipment is also part of their safety training. The student learns additional methods of identifying and controlling electrical, mechanical and physical hazards which are not covered in PPT 138.
PPT 138 O	**OSHA-10 Certification**	Students will receive the nationally recognized OSHA-10 certification. This includes coverage of electrical/mechanical energy hazards and SDS (formerly MSDS). The certificate fee is included in this course.
PPT 226 O	**Internship**	Students will get on-the-job experience by working with qualified personnel in a power plant. Work hours and objectives will be agreed upon by the instructor/advisor, the power plant supervisor/coordinator, and the student. Student progress will be gauged by meeting objectives and by a written report from the power plant supervisor/coordinator.
PPT 230 O	**Heat Transfer & Fluid Flow**	Students describe the principles of basic thermodynamics to include temperature, sensible heat, properties of water and steam, and other important concepts in this subject area. They explain the principles of fluid flow. The students describe laminar and turbulent flow, pump theory, cavitation, fluid flow in a closed system, water hammer, heating and draining a closed system, and filling and venting systems.

PPT 251 O	**Rigging Lift Equipment**	Students will learn the safe and correct materials to rig and lift loads. They will learn rigging requirements, and types of connectors in order to perform safe lifts. In addition, students will be exposed to the operational requirements and limits of lift equipment such as a fork lifts, boom trucks, and various types of cranes.
TCH 243 O	**Introduction to Wind Energy**	Students learn of the various forms of energy and more specifically renewable energy sources. The basic concepts and vocabulary of electricity and concepts of transforming or converting mechanical energy to electrical energy are covered. The most common energy sources including the benefits and limitation of each are investigated. Progression of harnessing the wind and looks to the future of wind energy are discussed. A typical modern wind turbine is dissected to discover how electricity is created from the wind. Practical exercises in recording and analyzing information to determine wind power potential are practiced. This course includes practical exercises to reinforce energy, wind power and its future.