

## **Automotive Pathway**

### **Automotive Services Fundamentals**

**Course Number:** IT11

**Prerequisite:** None

**Aligned Industry Credential:** S/P2- Safety and Pollution Prevention and SP2- Mechanical and Pollution Prevention

**Description:** This course introduces automotive safety, basic automotive terminology, system & component identification, knowledge and introductory skills in hand tools, shop equipment, basic servicing, and use of service information. Also careers and various job opportunities in the automotive repair industry will be discussed. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. English language arts are reinforced.

### **Automotive Service I**

**Course Number:** IT16

**Prerequisite:** IT11 Automotive Service Fundamentals

**Description:** This course develops automotive knowledge and skills in performing scheduled automotive maintenance, servicing, and basic testing of brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. English language arts are reinforced.

### **Automotive Service II**

**Course Number:** IT17

**Prerequisite:** IT16 Automotive Service I

**Aligned Industry Credential:** ASE Student Certification-Maintenance and Light Repair

**Description:** This course builds on the knowledge and skills introduced in Automotive Servicing I and develops advanced knowledge and skills in vehicle system repair and/or replacement of components in the brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. English language arts are reinforced.

### **Automotive Service III**

**Course Number:** IT18

**Prerequisite:** Automotive Service II

**Aligned Industry Credential:** ASE Auto Maintenance and Light Repair Certification test (G1)

**Description:** This course builds on the skills and knowledge introduced in Automotive Service I & II. Building advanced automotive skills and knowledge in vehicle servicing, testing, repair, and diagnosis of brakes, electrical systems, drive-train, engine, HVAC and steering & suspension systems, while emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements. English language arts and mathematics are reinforced.

## **Software Development Pathway**

### **Multimedia and Webpage Design**

**Course Number:** BD10

**Prerequisite:** None

**Description:** This course focuses on desktop publishing, graphic image design, computer animation, multimedia production, and webpage design. Communication skills and critical thinking are reinforced through software applications. English language arts and arts are reinforced.

### **AP Computer Science Principles**

**Course Number:** 0A027

**Prerequisite:** None

**Description:** AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

### **AP Computer Science A**

**Course Number:** 2A027

**Prerequisites:** BP10 Computer Programming I

**Description:** AP Computer Science A is an introductory course in computer science. The major theme in this course is problem-solving. AP Computer Science A includes fundamental data structure and algorithms, machine-level representations of data, object-oriented solutions programming, basic type systems, algorithms and design, fundamental programming concepts.

### **Computer Programming I**

**Course Number:** BP10

**Prerequisite:** BD10 Multimedia & Webpage Design or 0A027 AP Computer Science Principles

**Description:** This course is designed to introduce the concepts of programming, application development, and writing software solutions in the Visual Studio environment. Emphasis is placed on the software development process, principles of user interface design, and the writing of a complete. Visual Basic program including obtaining and validating user input, logical decision making and processing, graphics, and useful output. Mathematics is reinforced and entrepreneurial experiences encouraged.

### **Computer Programming II**

**Course Number:** BP20

**Prerequisite:** BP10 Computer Programming I

**Description:** This course is designed to teach students advanced programming concepts, including class structures, multimedia programming, advanced arrays, and file structure. Mathematics is reinforced and entrepreneurial experiences encouraged.

## **AP Computer Science A**

**Course Number:** 2A027

**Prerequisites:** BP10 Computer Programming I

AP Computer Science A is an introductory course in computer science? The major theme in this course is problem-solving. AP Computer Science A includes fundamental data structure and algorithms, machine-level representations of data, object-oriented solutions programming, basic type systems, algorithms and design, fundamental programming concepts.

## **Business Pathway**

### **Microsoft Word and PowerPoint**

**Course Number:** BM10

**Prerequisite:** None

**Aligned Industry Credential:** Microsoft Office Specialist (MOS) in Word and/or PowerPoint

**Description:** Students in the Microsoft Imagine Academy benefit from world-class Microsoft curriculum and software tools to tackle real-world challenges in the classroom environment. In the first part, students will learn to use the current version of Microsoft Word interface, commands, and features to create, enhance, customize, share and create complex documents, and publish them. In the second part, students will learn to use the current version of Microsoft PowerPoint interface, commands, and features to create, enhance, customize, and deliver presentations. English language arts are reinforced.

### **Microsoft Excel 2016**

**Course Number:** BM20

**Prerequisite:** BM10 Microsoft Word and PowerPoint

**Aligned Industry Credential:** Microsoft Office Specialist (MOS) in 77-727: Excel 2016: Core Data Analysis, Manipulation, and Presentation and 77-728: Excel 2016 Expert: Interpreting Data for Insights

**Description:** This class is designed to prepare students for success completion of the Microsoft Office Specialist Excel Core and Excel Expert exams. Fundamental understanding of the Excel environment and the ability to complete tasks independently. Students will know and demonstrate the correct application of the principle features of Excel 2016. Candidates create and edit a workbook with multiple sheets, and they use a graphic element to represent data visually. Career possibilities may include accountants, financial analysts, data analysts, commercial bankers, and others.

### **Principles of Business and Finance**

**Course Number:** BF10

**Prerequisite:** BM20 Microsoft Excel

**Description:** This course introduces students to topics related to business, finance, management, and marketing to cover business in the global economy, functions of business organization and management, marketing basics, and significance of business financial and risk management. English language arts, social studies, and mathematics are reinforced.

### **Entrepreneurship I**

**Course Number:** ME11

**Prerequisite:** BF10 Principles of Business and Finance

**Aligned Industry Credential:** Venture Entrepreneurial Expedition

**Description:** In this course, students evaluate the concepts of going into business for themselves and working for or operating a small business. Emphasis is on the exploration of feasible ideas of products/services, research procedures, business financing, marketing strategies, and access to resources for starting a small business. Students develop components of a business plan and evaluate startup requirements. English language arts and social studies are reinforced.

## **Culinary and Food Service Pathways**

### **Introduction to Culinary Arts and Hospitality**

**Course Number:** FH20

**Prerequisite:** None

**Aligned Industry Credential:** ServSafe Food Protection Manager Certification

**Description:** In this course, basic safety and sanitation practices leading to a national industry-recognized food safety credential are introduced. Commercial equipment, small wares, culinary math, and basic knife skills, and cold food production in a commercial foodservice facility are taught. An in-school foodservice business component allows students to apply knowledge and skills in a commercial setting. Art, mathematics, and science are reinforced.

### **Culinary Arts and Hospitality I**

**Course Number:** FH21

**Prerequisite:** FN41 Food & Nutrition I

**Aligned Industry Credential:** Certified Restaurant Server & ServSafe Food Protection Manager Certification

**Description:** This course focuses on basic skills in cold and hot food production, baking and pastry, and service skills. An in-school foodservice business component allows student to apply knowledge and skills in a commercial setting. Art, English language arts, mathematics, and science are reinforced. \*For safety reasons, enrollment is not to exceed 20 in this course.

### **Culinary Arts and Hospitality II**

**Course Number:** FH22

**Prerequisite:** FH21 Culinary Arts and Hospitality I

**Description:** This course provides advanced experiences in cold and hot food production, management (front and back of the house), and service skills. Topics include menu planning, business management, and guest relations. An in-school foodservice business component allows to apply knowledge and skills in a commercial setting. Art, English language arts, mathematics, and science are reinforced. \*For safety reasons, enrollment is not to exceed 20 in this course.

### **Food and Nutrition I**

**Course Number:** FN41

**Prerequisite:** FH21 Culinary Arts and Hospitality I

**Description:** This course examines the nutritional needs of the individual. Students learn fundamentals of food production, kitchen and meal management, food groups and their preparation, and time and resource management. English language arts, mathematics, science, and social studies are reinforced. \*For safety and sanitation reasons, enrollment should not exceed 20 in this course.

### **Food and Nutrition II**

**Course Number:** FN42

**Prerequisite:** FN41 Foods and Nutrition I

**Aligned Industry Credential:** ServSafe Food Protection Managers Certification

**Description:** In this course, students experience the cross-section of nutrition science and food preparation while building skills for an expanding range of career opportunities. Emphasis is placed on health and social responsibility while improving the way people eat. Students come to understand food protection, nutrients, lifespan nutrition, sports nutrition, medical nutrition therapy, American and global foodways, and entrepreneurship. English language arts, social studies, mathematics, and science are reinforced. \*For safety and sanitation reasons, enrollment should not exceed 20 in this course.

### **Food Science and Technology**

**Course Number:** FN43

**Prerequisite:** FN42 Food and Nutrition II

**Aligned Industry Credential:** Food Science Fundamentals Pre-PAC

**Description:** This course explores the food industry from the farm to the table using skills in food science, technology, engineering, and mathematics. Government regulations, emerging trends, biotechnology, and technological career opportunities from scientists to technicians will be presented. The student examines production, processing, preparation, preservation, and packaging principles along the farm to table continuum. The student begins to understand how food technology affects the food that he/she eats. English language arts, science, and social studies are reinforced.

## **Biomedical Pathway**

### **PLTW Principles of Biomedical Sciences**

**Course Number:** HP70

**Prerequisite:** None

**Description:** This course is designed for students to investigate the human body systems and various health conditions. They determine factors that lead to the death of a fictional person and investigate lifestyle choices.

### **PLTW Human Body Systems**

**Course Number:** HP71

**Prerequisite:** HP70 PLTW Principles of Biomedical Sciences

**Aligned Industry Credential:** American Heart Association Basic Life Support Heart save First Aid

**Description:** In this course students examine the human body systems, design experiments and use data acquisition software to monitor body functions and often play the role of the biomedical professional. English language arts and science are reinforced in this course.

### **PLTW Medical Interventions**

**Course Number:** HP72

**Prerequisite:** HP71 PLTW Human Body Systems

**Description:** This course allows students to investigate the interventions involved in the prevention, diagnosis and treatment of disease. It is a “How-To” manual for maintaining overall health. English language arts and science are reinforced in this course.

### **PLTW Biomedical Innovations**

**Course Number:** HP73

**Prerequisite:** HP72 PLTW Medical Interventions

**Description:** This course allows students to apply their knowledge and skills to answer questions or solve problems related to biomedical sciences. Students design innovative solutions to the health care challenges of the 21st century. Students work on independent projects and may work with a mentor in the healthcare industry. English language arts and science are reinforced in this course.

## **Market Pathway**

### **Marketing**

**Course Number:** MM51

**Prerequisite:** None

**Description:** In this course, students develop an understanding of the processes involved from the creation to the consumption of products/services. Students develop an understanding and skills in the areas of distribution, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Students develop an understanding of marketing functions applications and impact on business operations. Mathematics and social studies are reinforced.

### **Hospitality and Tourism**

**Course Number:** MH42

**Prerequisite:** MM51 Marketing

**Aligned Industry Credential:** Certified Guest Service Professionals (CGSP) and Advance Customer Service and Sales Certification, Fundamentals Marketing Concepts

**Description:** In this course, students acquire understanding of the economic impact and marketing strategies for hospitality and tourism destinations. Emphasis is on destination complexity, customer relations, economics, legal and ethical responsibilities, safety and security, and tourism promotion. English, language arts, mathematics, social studies and technology are reinforced.

## **Marketing Applications**

**Course Number:** MA52

**Prerequisite:** MM51 Marketing

**Aligned Industry Credential:** Customer Service and Sales Certification and Advanced Customer Service and Sales Certification, Fundamentals Marketing Concepts

**Description:** In this course, students will apply an understanding of marketing functions and impact of the functions on business decisions. Through problem solving and critical thinking, students will apply knowledge and skills in the areas of customer relations, economics, financial analysis, channel management, marketing-information management, marketing planning, products and services managements, and selling. Relative opportunities are available for students to see technology to acquire and use marketing information. English, language arts, and social studies are reinforced.

## **Sports and Entertainment Marketing I**

**Course Number:** MH31

**Prerequisite:** MM51 Marketing

**Description:** In this course, students are introduced to the industry of sports, entertainment, and event marketing. Students acquire transferable knowledge and skills among related industries for planning sports, entertainment, and event marketing. Topics included are branding, licensing, and naming rights, business foundations, concessions and on-site merchandising, economic foundations, human relations, and safety and security. Mathematics and social studies are reinforced.

## **International Marketing**

**Course Number:** 6609 (Local Course)

**Prerequisite:** MA53 Marketing Applications

**Description:** Students will understand international context, marketing planning and conducting transactions across borders to create exchanges that satisfy the objectives of individuals and organizations. This course considers the basic concepts of international marketing, the various activities necessary for international marketing planning, the beginning of international marketing activities to be conducted by a domestic firm, and relevant issues on strategy and marketing management relevant to expanded global operations.

## **Strategic Marketing**

**Course Number:** MU92

**Prerequisite:** 6609 International Marketing (Local Course)

**Aligned Industry Credential:** Customer Service and Sales Certification and Advanced Customer Service and Sales Certification, Fundamentals Marketing Concepts

**Description:** This fast-paced course challenges students by combining into one course the concepts taught in the Marketing and Marketing Application courses. The curriculum, activities, and resources utilized in this course are written at the freshman college level. The Strategic Marketing course focuses on the impact of marketing on society, procedures used in buying behavior, procedures to manage marketing information, procedures to develop and manage products, pricing procedures, promotion, marketing channels, supply chain management, retail operations, and global marketing. English/language arts and mathematics are reinforced.

## **Engineering Pathway**

### **PLTW Introduction to Engineering Design**

**Course Number:** TP11

**Prerequisite:** None

**Credential:** OSHA 10-Hour Industry Certification

**Description:** In this foundation Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students are exposed to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peer and members of the professional community. Art, English, language arts, mathematics and science are reinforced.

### **PLTW Principles of Engineering**

**Course Number:** TP12

**Prerequisite:** TP11 PLTW Introduction to Engineering Design

**Aligned Industry Credential:** OSHA 10-Hour Industry Certification

**Description:** In this foundation Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students survey engineering and are exposed to major concepts they will encounter in a postsecondary engineering course of study. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, documenting their work and communicating solutions to peers and members of the professional community. Art, English language arts, mathematics and science are reinforced.

### **PLTW Civil Engineering and Architecture**

**Course Number:** TP23

**Prerequisite:** TP12 PLTW Principles of Engineering

**Aligned Industry Credential:** OSHA 10-Hour Industry Certification

**Description:** This PLTW course introduces students to important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

### **PLTW Computer Integrated Manufacturing**

**Course Number:** TP22

**Prerequisite:** TP12 PLTW Principles of Engineering

**Aligned Industry Credential:** OSHA 10-Hour Industry Certification

**Description:** In this specialization Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students discover and explore manufacturing processes, product design, robotics, and automation, and then they apply what they have learned to design solutions for real-world manufacturing problems. Art, English language arts, mathematics and science are reinforced.



## **PLTW Digital Electronics**

**Course Number:** TP21

**Prerequisite:** TP23 PLTW Civil Engineering and Architecture or TP22 PLTW Computer Integrated Manufacturing

**Aligned Industry Credential:** OSHA 10-Hour Industry Certification

**Description:** In this foundation Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students explore the foundations of computing by engaging in circuit design processes to create combinational logic and sequential logic (memory) as electrical engineers do in industry. Art, English language arts, mathematics and science are reinforced.

## **Advanced Studies and College Promise**

### **CTE Advanced Studies**

**Course Number:** CS95

**Prerequisite:** Two technical credits in one Career Cluster

**Description:** This culminating course is for juniors and seniors who have earned two technical credits, one of which is a completer course, in one Career Cluster. The Advanced Studies course must augment the content of the completer course and prepare students for success in transitioning to postsecondary education and future careers. Students work under the guidance of a teacher with expertise in the content of the completer course in collaboration with community members, business representatives, and other school-based personnel. The four parts of the course include writing a research paper, producing a product, developing a portfolio, and delivering a presentation. Students demonstrate their abilities to use 21st century skills. Competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

### **CTE Career and College Promise**

**Description:** Career and College Promise provides a way for any North Carolina high school student in good academic standing who meets eligibility requirements to take community college courses while still in high school. Students can combine high school and postsecondary courses to earn a credential, certificate, or diploma in a technical field and meet requirements for CTE concentration. Credit may be transferrable to another North Carolina community college, to UNC System institutions, and to many of the state's independent colleges and universities. Students should work with their school counselor to determine what CTE pathways are available at their local community college or in what other ways they can access this program.