



Polytechnic Departments

Learn by Doing

As a number of different departments we have banded together under the innovative umbrella of polytechnic education, providing our students with the needed preparation for both college and career. By doing so, we are providing our students the absolute richest educational environment filled with hands-on opportunities, real-world skill acquisition, and challenging curriculum. We are the polytechnic department.

Polytechnic Areas of Study

[Art and Design Studio](#)

[Business](#)

[Computer Science](#)

[Culinary and Hospitality](#)

[Human Services and Education](#)

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[One Semester Courses](#)

[HiLite](#)

[Pinnacle Yearbook](#)

[CHTV](#)

[WHJE](#)

[Health Sciences](#)

Students who wish to purpose their required postsecondary ready competencies through a pathway should view the [Career Pathway Overview](#).

Foundational Skills Courses

The courses in the Foundational Skills area of study are one-semester courses that prepare students for college and careers. They do not have prerequisites and are not part of the Graduation Pathway sequence.

INTERPERSONAL RELATIONSHIPS (5364)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, and 12

Credit: 1 RW

Interpersonal Relationships will satisfy the health credit required for graduation. Interpersonal Relationships is an introductory course that is especially relevant for students interested in careers that involve interacting with people. Major course topics include communication skills; leadership and collaboration; conflict prevention, resolution, and management; building and maintaining relationships; and individual needs and characteristics and their impacts on relationships. This course provides a foundation for continuing and post-secondary education for all career areas that involve interacting with people both inside and outside of a business/organization, including team members, clients, patients, customers, and the general public.

PREPARING FOR COLLEGE AND CAREERS: NOW (5394)

Classification: CTE

Prerequisite: None

Open to: 9 and 10

Credit: 1 RW

PCC: Now (**Grades 9 & 10**) addresses the knowledge, skills, and behaviors all students need to be practicing, while in high school, in order to be prepared for success in college, career, and life. The focus of the course is the impact of today's choices on tomorrow's possibilities. Topics include: organization and planning, study skills and note-taking, learning about the self, career exploration and planning, and investigating post-secondary options.

PREPARING FOR COLLEGE AND CAREERS: LIFE BEYOND HIGH SCHOOL (5394)

Classification: CTE

Prerequisite: None

Open to: 11 and 12

Credit: 1 RW

PCC: Life Beyond High School (**Grades 11 & 12**) will cover knowledge, skills, and behaviors students will need to be prepared for post-secondary endeavors. Students will explore college applications, financial aid resources, and how to write a college essay. Students will create and/or update resumes, practice interviewing skills, and explore networking opportunities for careers and jobs out of high school. Additional learning experiences will focus on financial responsibility, interpersonal standards, resource management, personal and professional skills needed for success. This course is designed to teach students how to be self-sufficient as a young adult.

PERSONAL FINANCIAL RESPONSIBILITY (4540)

Classification: Regular

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1 RW

Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision-making; analyze personal standards, needs, wants, and goals; identify sources of income, saving and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt.

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Art and Design Studio

Art and Design Studio provides a learning environment both for the student planning a career in art and the student with a general interest in the visual arts. Students are provided a well-rounded art experience through a variety of course offerings. They may elect to take craft classes, fine arts classes, and/or art history courses.

****Regular Fine Arts Credits include all courses except for the CTE Digital Design, Fashion and Textile, and Interior Design Pathway courses.***

****Fashion and Textiles and Principles of Interior Design can now be found in the Art and Design Studio area of study.***

ART HISTORY (4024)

Classification: Regular

Prerequisites: none

Open to: 10,11,12

Credit: 1 RW

Art History is a semester-long, interdisciplinary course that integrates the visual arts, the natural sciences, religion, world history, and literature. Students will use critical thinking skills, develop visual perception, expand art vocabulary, and gain an appreciation for art forms of many different cultures and civilizations. This course will allow students who prefer a diverse learning experience the opportunity to engage in mixed media projects and presentations.

ACP H100 Art History and Visual Culture, Dual Credit (4260)

Classification: ACP, Dual Credit

Prerequisites: none

Open to: 10,11,12

Credit: 1 FW, Dual Credit

Dual Credit (ACP) Art History is a semester-long interdisciplinary course that introduces students to art and visual culture. Students will explore works of art and visual culture within cultural, thematic, and historical contexts. Students will discover purposes and themes of art, analyze objects, and learn to discuss and write about art. Students will learn a new visual vocabulary, enabling them to analyze and understand a variety of different styles, periods, cultures, and media. By the end of this course, students will have a deeper understanding of the roles that art plays in the world. The basic format of this course is a combination of lectures, group collaboration, and hands-on research projects. **This course is currently tuition-free for students in Indiana high schools. Students must have a GPA of 2.70 or above on a 4.00 point scale through the student's most recently completed semester of high school.* This course is the equivalent of Indiana University's H100: Introduction to Art History and Visual Culture course. Students will have the ability to earn college credit through Indiana University provided they meet all the requirements of this course. *Credits may be transferable to many colleges and universities in the country, and students are encouraged to check with their colleges of interest to determine transferability.*

ART HISTORY, AP Advanced Placement (4025)

Classification: Advanced Placement, Pathway Option

Prerequisites: none

Open to: 10, 11, 12

Credit: year-long course, 2 FW (*This course **cannot** be taken simultaneously with Art History or ACP*)

AP Art History is a year-long course based on the content established by the College Board. Art History is designed to provide the same benefits to secondary school students as those provided by an introductory college course in art history. Students will gain an understanding and knowledge of architecture, sculpture, painting, and other art forms within diverse historical and cultural contexts. Students will examine major forms of artistic expression from the past and the present from a variety of cultures. It is recommended, but not required, that students interested in taking AP Art History maintain a "B" average or higher in their language arts courses. *This course is one of the course choices required for the Art Concentrator Pathway.*

DRAWING 1-2 (L) (4060)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1-2 RW

Drawing 1-2 introduces students to basic drawing techniques and media. Traditional studies in line, form, texture, composition, perspective, and design will be the focus. Subject matter includes nature studies, perspective, landscape, still life, and portraiture. The following media will be introduced in Drawing 1: pen and ink, charcoal, colored pencil, marker, and graphite. The following media will be introduced in Drawing 2: pastels, opaque and transparent watercolor, acrylic paint, and mixed media. Color theory will be studied in Drawing 2. These courses are the foundation courses for advanced visual arts classes. *This course is one of the course choices required for the Art Concentrator Pathway.*

DRAWING 3-4 (L) (4060)

Classification: Regular, Pathway Option

Prerequisite: Drawing 2

Open to: 10, 11, 12

Credit: 1-2 RW

Drawing 3-4 will develop and strengthen students' drawing skills while creating a strong foundation for use with any other art medium. Themes may be developed from object studies, visual collage, or subjects of personal interest. Through a variety of media, including graphite and colored pencil, conte' crayon, charcoal, and pen and ink, students will combine previous art experiences with a keen focus not only on developing drawing technique but also intensifying observational skills. Drawing 3-4 students will look more closely at their subjects and develop personal themes and styles in their artwork. *This course is one of the course choices required for the Art Concentrator Pathway.*

DRAWING 5-6 (L) (4060)

Classification: Regular

Prerequisite: Drawing 4

Open to: 11, 12

Credit: 1-2 RW

Drawing 5-6 is for students who take enjoyment in their drawing but also need to continue developing their skills at an advanced level. Exposure to diversity is important as students work from small to large drawings with lengthy or quick studies. While experiencing a variety of paper types, students create with drawing materials including graphite, colored pencil, charcoal, pastel, and mixed media. At this stage, we further explore and develop creative and expressive qualities of the artist through guided and self-directed themes. Students in Drawing 5-6 have an opportunity to professionalize their drawing skills and develop exceptional works of art.

INTRODUCTION TO TWO- DIMENSIONAL ART (L) (4000)

Classification: Regular, Pathway Option

Prerequisite: none

Open to: 9, 10, 11, 12

Credit: 1RW

Students will experiment with a variety of media, techniques, and design concepts in order to determine future direction in the visual arts. Drawing, painting, printmaking, collage, mixed media, and relief sculpture will be explored. Students will be introduced to the elements and principles of design, art history, and art criticism. This course is recommended for beginning visual art students. Students will be required to purchase some art supplies in addition to the course fee. *This course is one of the course choices required for the Art Concentrator Pathway.*

ADVANCED TWO-DIMENSIONAL ART (L) (4004)

Classification: Regular, Pathway Option

Prerequisite: Introduction to Two- Dimensional Art

Open to: 9, 10, 11, 12

Credit: 1RW

Students will continue to explore a variety of media, techniques, and design concepts that build upon skills learned in Introduction to Two-Dimensional Art. Drawing, painting, printmaking, collage, mixed media, and relief sculpture will be explored at an advanced level. Students will apply elements and principles of design, art history, and art criticism concepts to their projects. Students may be required to purchase some art supplies in addition to the course fee. *This course is one of the course choices required for the Art Concentrator Pathway.*

PAINTING 1-2 (L) (4064)

Classification: Regular, Pathway Option

Prerequisite: Painting 1- Drawing 2

Painting 2- Painting 1

Open to: 10, 11, 12

Credit: 1-2 RW

Painting 1-2 allows students of all abilities the opportunity to explore oil, watercolor, and acrylic paint. Students gain experience with color, brushwork, techniques, and both traditional and contemporary styles of artists. Subject matter themes include landscapes, figures, portraits, object studies, and personal narratives. This course allows students to develop confidence in painting through experience and practice with various media. Painting 2 focuses primarily on oil painting and experimental techniques. Students will advance their techniques, skill and exploration of ideas in a relaxed atmosphere. *This course is one of the course choices required for the Art Concentrator Pathway.*

AP STUDIO ART Advanced Placement: 3D DESIGN Portfolio (4052)

Classification: Regular, Pathway Option

Prerequisite: 4 semesters Fine Art/or 4 semesters of Crafts

Open to: 11,12

Credit: 2 FW

AP Studio Art is a course for students who want to develop their portfolio for college applications. These students should be serious about developing their artwork in a concentrated area through the improvement of 3-D techniques and design skills. The focus will be on developing the quality, concentration, and breadth of sculptures that follow the requirements of the AP Studio Art Program. Creative thought is essential, combined with the investigation of concepts, issues, and personal themes and subject matter through individual research and involved decision making. Students are challenged to become independent thinkers. Students develop ideas through their sketchbooks, explore artist connections, and present their work through critiques and exhibitions. Students must be willing to accept the committed challenge of a rigorous studio art program. *This course is one of the course choices required for the Art Concentrator Pathway.*

AP STUDIO ART Advanced Placement: DRAWING Portfolio (4048)

Classification: Advanced Placement, Pathway Option

Prerequisite: Drawing 4, or 4 semesters of crafts classes and teacher approval.

Open To: 11,12

Credit: 2 FW

Studio Art-AP is a course for students who are serious about developing their portfolio of **drawings** in a concentrated area through the improvement of technique and design skills. The focus will be on the quality, concentration, and breadth of work produced. Creative thought is essential, combined with the investigation of concepts, issues, and personal themes and subject matter through individual research and involved decision-making. Students are challenged to become independent thinkers who will contribute inventively and critically to their culture through the making of art. Students will develop ideas through their sketchbook, explore artist connections, and present their work through critiques and exhibitions. Students must be willing to accept the committed challenge of a rigorous studio art program, and formal evaluations will be made according to national standards of performance through an examination of completed portfolio work. Along with the chance to receive college credit and/or advanced

placement for college, Studio Art-AP offers the advanced art student a rewarding opportunity to develop artistic skills while building and preparing a portfolio of art for college or work. *This course is one of the course choices required for the Art Concentrator Pathway.*

AP STUDIO ART Advanced Placement: 2D DESIGN Portfolio (4050)

Classifications: Advanced Placement, Pathway Option

Prerequisite: Drawing 4, or 4 semesters of craft classes (or teacher approval)

Open to: 11, 12

Credit: 2 FW

Studio Art-AP is a course for students who are serious about developing their portfolio of **mixed media and conceptual designs** in a concentrated area through the improvement of technique and design skills. The focus will be on the quality, concentration, and breadth of work produced. Creative thought is essential, combined with the investigation of concepts, issues, and personal themes and subject matter through individual research and involved decision-making. Students are challenged to become independent thinkers who will contribute inventively and critically to their culture through the making of art. Students will develop ideas through their sketchbook, explore artist connections, and present their work through critiques and exhibitions. Students must be willing to accept the committed challenge of a rigorous studio art program, and formal evaluations will be made according to national standards of performance through an examination of completed portfolio work. Along with the chance to receive college credit and/or advanced placement for college, Studio Art-AP offers the advanced art student a rewarding opportunity to develop artistic skills while building and preparing a portfolio of art for college or work. *This course is one of the course choices required for the Art Concentrator Pathway.*

CERAMICS 1-2 (4040) (Hand Building)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1-2 RW

Ceramics I introduces students to ceramic hand building techniques and the elements and principles of design. Coil, slab, and drape molding are essential building and construction skills that will be mastered. Glaze application, sgraffito, and stain application will be introduced. Ceramics 2 is a continued study in advanced hand-building techniques and formal design. Experimentation in texture and surface design, as well as glaze application, will be explored. *This course is one of the course choices required for the Art Concentrator Pathway.*

CERAMICS 3-4 (L) (Handbuilding and Pottery Wheel Throwing) (4040)

Classification: Regular, Pathway Option

Prerequisite: Ceramics 1-2

Open to: 10, 11, 12

Credit: 1-2RW

Ceramics 3 is an advanced hand building course and is designed for the serious ceramics student. The students will have an opportunity to work with different clays and decorative methods. There will be opportunities to work on the pottery wheel. Ceramics 4 is a continuation of the advanced hand-building and wheel-throwing skills learned previously in Ceramics 1-3. The students will have the opportunity to

explore personal themes and experimental techniques in this course. *This course is one of the course choices required for the Art Concentrator Pathway.*

FIBER ARTS 1-2 (L) (4046)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1-2 RW

Fiber Arts I exposes the student to a wide variety of fiber techniques, including textile collage, batik, embroidery, macrame, crochet/knitting, and beading. Students will explore the work of contemporary textile designers for inspiration, and develop excellence in craftsmanship. In addition to the course fee, the student must supply some materials. Fiber Arts 2 is a continuation of textile design and construction methods from Fiber Arts I. Weaving skills are introduced as well as new mixed media collage techniques, embossment and printmaking, and hand-sculpted bookmaking. Emphasis will continue to be placed on original design and craftsmanship. The student must supply some materials. *This course is one of the course choices required for the Art Concentrator Pathway.*

FIBER ARTS 3-4 (L) (4046)

Classification: Regular, Pathway Option

Prerequisites: Fiber Arts 1 and 2

Open to: 10, 11, 12

Credit: 1-2 RW

Fiber Arts 3 is an advanced level of textile design and construction methods. Students will be challenged to become independent thinkers who contribute collaboratively to the classroom culture and explore contemporary fiber artists. Students will have choices in media, materials, and artistic styles. The student must supply additional materials based on personal projects. Fiber Arts 4 is the second semester, advanced level of textile design and construction methods. Students will be challenged to become independent thinkers who contribute collaboratively to the classroom culture and explore contemporary fiber artists. Students will have choices in media, materials, and artistic styles. The student must supply additional materials based on personal projects. *This course is one of the course choices required for the Art Concentrator Pathway.*

JEWELRY 1-2 (L) (4042)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1-2RW

Jewelry 1-2 is intended to present students with a basic understanding of jewelry making and to develop a strong foundation in designing jewelry. Emphasis is placed on the elements and principles of design, as well as the steps involved in working with and constructing the pieces in metal. Students will explore various types of metal, glass, polymer clay, wire, beading, and macrame processes. In addition to the course fee, students purchase metal, saw blades, and solder. *This course is one of the course choices required for the Art Concentrator Pathway.*

JEWELRY 3-4 (L) (4042)

Classification: Regular, Pathway Option

Prerequisite: Jewelry 2 and teacher approval

Open to: 10, 11, 12

Credit: 1-2 RW

Jewelry 3-4 is intended to present students with an advanced understanding of jewelry making and to develop a strong foundation in designing jewelry. Emphasis will be placed upon stone setting, lost-wax casting, glass fusing and thematic designing. Art history, art criticism, aesthetics and production will also be included in the course of study. In addition to the course fee, students must purchase metal, saw blades, and solder. *This course is one of the course choices required for the Art Concentrator Pathway.*

PHOTOGRAPHY 1-2 (L) (4062)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 10, 11, 12

Credit: 1-2 RW

This course offers basic study in photography skills as an expressive art form. The exploration of both the cell phone camera and traditional film development will be explored. Students may bring in their own SINGLE LENS REFLEX (SLR) camera with adjustable controls and an internal metering system. Students will learn how to capture images in storytelling fashions, how to create dynamic compositions, and how to build a combination of cell phone camera imagery and darkroom process manipulation skills. Photography 2 is designed for the serious photography student to apply previously learned photography skills more creatively. Advanced cell phone camera manipulations will be included with complex, experimental procedures. Students are encouraged to think beyond the frame and explore photography as a tangible, expressive art form. *This course is one of the course choices required for the Art Concentrator Pathway.*

PHOTOGRAPHY 3-4 (L) (4062)

Classification: Regular, Pathway Option

Prerequisite: Photography 1-2 and teacher approval

Open to: 11, 12

Credit: 1- 2 RW

This course is designed for the serious photography student to apply subject matter of personal interests to previously learned photography skills and techniques. Students should be self-motivated, disciplined, and prepared to fulfill course objectives designed by the instructor and the student. Black and white photography and cell phone photography will be explored both traditionally and experimentally. This class offers students the opportunity to develop professional photography portfolios and mixed media creative projects, including the altering of finished images through methods like photo collages. Students are encouraged to think beyond the frame and explore photography as a tangible, expressive art form. *This course is one of the course choices required for the Art Concentrator Pathway.*

DIGITAL PHOTOGRAPHY 1-2 (4062)

Classification: Regular, Pathway Option

Prerequisite: None

Open to: 10, 11, 12

Credit: 1-2 RW

Digital Photography explores creative expression through the medium of digital photography. Use of the DSLR (Digital Single Lens Reflex) camera will be studied along with computer programs Photoshop and Movie Maker. Independent themes and personal narratives are explored. Students must bring in and have unlimited access to a DSL camera with adjustable controls. **Carmel High School's art department does not supply cameras.** Digital Photography 2 explores advanced digital photography techniques and software applications that build upon prior knowledge of Digital Photography. Use of the DSLR (Digital Single Lens Reflex) camera is required. Students will explore personal narratives and independent themes. Carmel High School's art department does not supply cameras. *This course is one of the course choices required for the Art Concentrator Pathway.*

DIGITAL PHOTOGRAPHY 3-4 (4062)

Classification: Regular, Pathway Option

Prerequisite: Digital Photography 1-2 with teacher approval

Open to: 11, 12

Credit: 1-2 RW

This course explores advanced digital photography techniques and software applications while offering students the independence to explore personal themes to build their portfolio of professional work. Carmel High School's art department does not supply cameras. *This course is one of the course choices required for the Art Concentrator Pathway.*

SCULPTURE (4044)

Classification: Regular

Prerequisite: none

Open to: 9, 10, 11,12

Credit: 1 RW

Sculpture provides an opportunity for students to work with a variety of media in the development of 3-dimensional forms. Starting with basic design principles, students will begin with a series of projects that incorporate design on a simple level and proceed to apply these principles to work with more complex media. Media projects may include found objects, wire, wood, plaster, and ceramics.

IB VISUAL ARTS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE (4090)

Classifications: IB, Pathway Option

Prerequisite: 4 semesters of visual arts classes

Open to: 11

Credits: 4 FW (2-year program)

The IB Visual Arts program is designed to provide students with various art interests the opportunity to develop their aesthetic, imaginative, and creative faculties in a global context. This program emphasizes critical thinking, intercultural understanding, and exposure to various viewpoints. Students center their artistic development around a Research Workbook, a personal record of their development and evolution as an artist. From this record, students find original inspiration and explore media to create a fully developed body of work. *This course is one of the course choices required for the Art Concentrator Pathway.*

IB VISUAL ARTS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE (4092)

Classifications: IB, Pathway Option

Prerequisite: 4 semesters of visual art classes

Open to: 11, 12

Credits: 2 FW (1-year program)

The IB Visual Arts program is designed to provide students with various art interests the opportunity to develop their aesthetic, imaginative, and creative faculties in a global context. This program emphasizes critical thinking, intercultural understanding, and exposure to various viewpoints. Students center their artistic development around a Research Workbook, a personal record of their development and evolution as an artist. From this record, students find original inspiration and explore media to create a fully developed body of work. *This course is one of the course choices required for the Art Concentrator Pathway.*

PRINCIPLES OF DIGITAL DESIGN 1-2 (L) (7140)

Classification: **CTE, Required Pathway Course**

Open to: 9, 10, 11, 12

Credit: 2 RW

Principles of Digital Design introduces students to computer applications of fundamental design theory, color dynamics, photography, image capturing, light, and processing. Students will create artwork with graphic art software, digital cameras, and scanners. First semester artwork will be a combination of computer-generated images, 2-D drawing skills, and graphic design. Second semester will emphasize animation, using the skills learned from the first semester. Students will participate in aesthetic discussions and critiques along with researching art history and contemporaries. They will be challenged to solve compositional layouts and sequencing events in order to achieve desired effects. Projects will range from simple one-day tutorials to multiple-week projects. Students will learn about current artists and careers in the field of computer art. ***This course is required for the CTE Digital Design Pathway.***

DIGITAL DESIGN 3-4 (4082)

Classification: Regular

Prerequisite: Digital Design 2 and **Instructor Approval**

Open to: 11,12

Credits: 2RW

Digital Design 3-4 is for the self-motivated artist, who wishes to pursue their talents in the field of computer art. Students will create an individualized letterhead and business card. Subsequent projects will be written on this letterhead, stating the length of time needed for completion, focus or goal of the assignment, parameters, technology needed to complete the assignment, and a brief description of the desired end product. Students will be assessed on the outcome of their work and the fulfillment of their contract obligations. It is an expectation for the students in this class to assist the students in Digital Design 1 when the need arises.

DIGITAL DESIGN GRAPHICS (7141)

Classification: **CTE, Required Pathway Course**

Prerequisite/Co-requisite: Principles of Digital Design and Professional, Photography and Videography

Open to: 10, 11,12

Credits: 2 RW

Digital Design Graphics helps students understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a

full range of image input technology and manipulation including conventional photography and digital imaging. Students will learn to communicate concepts and ideas through various imaging devices.

PROFESSIONAL PHOTOGRAPHY AND VIDEOGRAPHY (7136)

Classification: **CTE, Required Pathway Course**

Prerequisite/Co-requisite: Principles of Digital Design and Digital Design Graphics

Open to: 10, 11, 12

Credits: 2 RW

Professional Photography and Videography develops advanced animation skills and photographic vision. This course is the CTE Concentrator B for the Digital Design Pathway. It introduces special techniques and digital processes while refining printing, processing, editing and after effect skills. Students will learn the multi-purpose uses of photography, video, and animation as communication tools for conceptual thinking. Students will learn the basics of planning, shooting, editing and producing video and animated segments.

DIGITAL DESIGN CAPSTONE (7246)

Classification: **CTE**

Prerequisite: Principles of Digital Design, Digital Design Graphics, Professional Photography and Videography

Open to: 12

Credits: 2 FW

Digital Design Capstone provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and web design. Students may choose to focus their efforts on one area or explore multiple aspects. In-house internships and community based internships will be made available to students in this Capstone.

INTERIOR DESIGN

PRINCIPLES OF INTERIOR DESIGN (7132)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, and 12

Credit: 2 RW

Prerequisite for Interior Design Fundamentals

Principles of Interior Design introduces students to fundamental design theory and color dynamics as applied to compositional design. Investigations into design theory and color dynamics will provide experiences in applying design theory to three-dimensional concepts, human factors and the psychology and social influences of space. These experiences will develop students' skills in creative problem-solving, peer evaluation, and presentation skills. This course is one of the required courses for the Interior Design Pathway.

INTERIOR DESIGN FUNDAMENTALS (7127)

Classification: CTE, Pathway Option

Prerequisite: Principles of Interior Design

Open to: 10,11,12

Credit: 2 RW

Interior Design Fundamentals provides students with an overview of the field of interior (environmental) design, including an understanding of fundamental construction knowledge and skills needed in the field. Exercises include small scale space analysis and functional planning based on user needs, furniture arrangement and selection, materials and finishes considerations and presentation techniques. Students will also learn basics regarding building practices, building structures, residential construction techniques, building materials and plan reading. Includes building codes, sustainable design practices, and the preparation of site and construction plans, elevations, sections, three-dimensional drawings details and hand renderings as they relate to construction and presentation drawings.

ADVANCED INTERIOR DESIGN: MATERIALS, FINISHES, & DESIGN (7128)

Classification: CTE, Pathway Option

Prerequisite or Co-requisite: Interior Design Fundamentals

Open to: 11, 12

Credit: 2 RW

Materials, Finishes, and Design examines the physical properties and characteristics of furniture, materials, finishes, and architectural detailing. The course includes an intensive study of textiles, including fiber sources, identification and classification to finish and sustainable qualities. Students will apply textile knowledge to interior textile fabrications including window treatments, upholstery, carpet and wall coverings. Content addresses environmental issues and problems in specifying, estimating, and installing these materials.

INTERIOR DESIGN CAPSTONE (7248)

Classification: CTE, Pathway Option

Prerequisite or Co-requisite: Advanced Interior Design

Open to: 12

Credit: 2 FW-6FW

***Students must provide their own transportation for field experiences.

The Interior Design Capstone course is designed to provide students a chance to extend their knowledge and skills through additional coursework and a work-based learning experience. Capstone is an optional, additional experience, but not required to meet the graduation requirements

FASHION

Introduction to Fashion & Textiles (5380)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1 RW

Fulfills a Fine Arts Credit

ONE SEMESTER COURSE: Introduction to Fashion and Textiles is an introductory course for those students interested in fashion and learning how to sew creating their own individual projects.

PRINCIPLES OF FASHION AND TEXTILES (7301)

Classification: CTE, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, and 12

Credit: 2 FW, Ball State, Dual Credit

Prerequisite for Fashion and Textiles A

Principles of Fashion and Textiles prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course is a survey of the business of fashion and its careers through design, manufacture, distribution, and promotion. It is an introduction to fashion theory, its products and consumers. This course builds a foundation that prepares students for all aspects of the fashion creation process. Major topics include basic sewing techniques, pattern alterations, and the use of commercial patterns. Students will complete an ensemble to showcase at the end of the year CHS Fashion Show. Students are responsible for the expense of their own patterns, fabric, and notions. This course is one of the required courses for the Fashion & Textiles Pathway.

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

FASHION AND TEXTILES A (7302)

Classification: CTE, Pathway Option

Prerequisite: Principles of Fashion

Open to: 10,11,12

Credit: 2 FW, Ball State, Dual Credit

Prerequisite for Fashion and Textiles B

Fashion & Textiles A prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course provides a basic knowledge of apparel construction and principles of design as applied to clothing. Major topics include trend forecasting, fashion illustration, fit analysis, and garment construction. Students will complete their own designed garments to showcase at the end of the year CHS Fashion Show.. Students are responsible for the expense of their own patterns, fabric and notions.

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

FASHION AND TEXTILES B (7303)

Classification: CTE, Pathway Option

Prerequisite or Co-requisite: Fashion and Textiles A

Open to: 10, 11, 12

Credit: 2 FW, Ball State Dual Credit

Fashion & Textiles B prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course focuses on the analysis of the quality of fashion products including components of textiles (fibers, yarns, and fabrics), performance, quality, and consumer satisfaction. Students will focus on the technical design aspects of the fashion industry and its production processes, including steps from design and development to manufacturing, packaging, and distribution. Students will be designing and producing their own fashion clothing line/collection of

garments and accessories. Students are responsible for the expense of their own patterns, fabric, materials, and notions.

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

FASHION AND TEXTILES CAPSTONE (7304)

Classification: CTE, Pathway Option

Prerequisite or Corequisite: Fashion and Textiles B

Open to: 12

Credit: 2 FW-6FW

****Students must provide their own transportation for field experiences.*

Fashion & Textiles Capstone prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This careers-course will focus on portfolio development, planning and producing our annual fashion show, collegiate scholarship submissions, job shadowing and work-based learning opportunities. Students are responsible for the expense of their own materials. Capstone is an optional, additional experience, but not required to meet the graduation requirements. ***Students are responsible for all materials needed for portfolio work if they choose the “in-house” option for fall semester only.*

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Business

Courses in the Business area of study apply to every student at Carmel High School. No matter the career choice, students will be involved in the world of business. Students may choose to specialize in Marketing or Accounting, or decide that the IB Business Management program is right for them. Business offers many opportunities to explore and assist students in making decisions about where they want to end up after high school. The national Career and Technical Student Organization, DECA, is part of the Business area. Any student who has taken a business course is eligible to join this program.

PERSONAL FINANCIAL RESPONSIBILITY (4540)

Classification: Regular

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1 RW

Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision-making; analyze personal standards, needs, wants, and goals; identify sources of income, saving, and investing; understand banking, budgeting, record-keeping, and managing risk, insurance, and credit card debt.

AP BUSINESS WITH PERSONAL FINANCE

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 2 FW

***The Indiana Department of Education has not yet determined if this course will satisfy the Personal Finance graduation requirement beginning with the class of 2029.

AP Business with Personal Finance introduces students to the knowledge and skills they'll need to grow their careers, manage money, and get a head start toward the most popular college major in the U.S. Developed in partnership with college faculty and industry leaders, the yearlong course offers students the opportunity to earn college credit and an employer-endorsed credential.

DIGITAL APPLICATIONS AND RESPONSIBILITY 1-2 (4528)

Classification: Regular

Open to: 9, 10, 11, 12

Credit: 1-2 RW

Digital Applications and Responsibility students use Microsoft Office 2019 to create documents applicable to home and school. These applications are suitable for both academic and workplace tasks. *DAR* helps students develop efficient and practical computer skills beyond the basics that they may have learned at home or in middle school. Students also learn how to use the Internet effectively and appropriately. This course meets the technology requirement for graduation. Students will be given the opportunity to seek industry-recognized digital literacy certifications (MOS Certification) for Word 2019, Excel 2019, Access 2019, and PowerPoint 2019. ****Students will have the opportunity to earn dual credit through Ivy Tech Community College, provided they meet the Ivy Tech requirements and successfully pass DAR 1. **** *Students must receive a passing grade to move into DAR 2. While in DAR 2, in order to sit for certification exams, a student must earn a passing grade.*

PRINCIPLES OF BUSINESS MANAGEMENT (4562)

Classification: CTE, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 2 RW

Prerequisite for Accounting Fundamentals and Marketing & Management Fundamentals

Principles of Business Management examines business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of business enterprises. This course will also emphasize the identification and application of technology to effectively communicate and solve business problems, as well as aid in informed decision-making. Attention will be given to developing business communication, problem-solving, and decision-making skills using spreadsheets, word processing software, data management tools, and presentation software. DECA membership is encouraged. This course is one of the required courses for Accounting, Marketing, Finance & Investments, Business Administration, LCP Art, and LCP Performing Arts Pathways.

ACCOUNTING FUNDAMENTALS (4524)

Classification: CTE, Pathway Option

Prerequisite or Co-requisite: Principles of Business Management

Open to: 10, 11, 12

Credit: 2 RW: Dual Credit

Accounting introduces the language of business using Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships, employing the principles of double-entry accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions, as well as preparing, analyzing, and interpreting financial reports to inform decision-making. First semester begins with bookkeeping concepts and then bridges those skills into concepts and principles of accounting. Students are introduced to the accounting cycle and banking practices relevant to a service-oriented business. Second-semester students will study accounting and payroll systems and subsystems utilizing journals, ledgers, and financial statements for a merchandising business. ***Students will have the opportunity to earn dual credit through Vincennes University as long as they meet the Vincennes requirements.*

ADVANCED ACCOUNTING (4522)

Classification: CTE, Pathway Option

Prerequisite: Accounting Fundamentals

Open to: 11,12

Credit: 2 RW, Dual Credit

Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting covered in Introduction to Accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making. ***Students will have the opportunity to earn dual credit through Vincennes University as long as they meet the Vincennes requirements.*

FINANCE AND INVESTMENTS (5258)

Classification: CTE, Pathway Option

Prerequisite/Co-requisite: Principles of Business Mgmt & Accounting Fundamentals

Open to: 11,12

Credit: 2 RW

Finance and Investments analyzes and synthesizes high-level skills needed for a multitude of careers in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance.

ACCOUNTING CAPSTONE (7252)

Classification: CTE, Pathway Option

Prerequisite: Principles of Business Mgmt, Accounting Fundamentals

Prerequisite/Co-requisite: Advanced Accounting

Open to: 12

Credit: 2 FW-6FW

****Students must provide their own transportation for field experiences.*

Accounting Capstone will provide students the opportunity to participate in an intensive work-based learning experience and/or to complete additional coursework in using spreadsheets to solve accounting cases. The Accounting Capstone course will emphasize Managerial Accounting concepts and Income Tax Accounting for individuals and sole proprietorships. Topics include general versus cost accounting systems, cost behavior, cost-volume-profit analysis, budgeting, standard cost systems, responsibility accounting, incremental analysis, and capital investment analysis. Offers an overview of federal and state income tax law for individuals including taxable income, capital gains and losses, adjustments, standard and itemized deductions, tax credits and appropriate tax forms. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

FINANCE AND INVESTMENT CAPSTONE (7265)

Classification: CTE, Pathway Option

Prerequisite: Principles of Business Mgmt, Accounting Fundamentals

Prerequisite/Co-requisite: Finance & Investments

Open to: 12

Credit: 2 FW-6FW

*****Students must provide their own transportation for field experiences.**

The Finance and Investment Capstone course includes content on Credit and Collections, Real Estate, and Business Law. Finance Capstone will provide students the opportunity to participate in an intensive work-based learning experience

Capstone is an optional, additional experience, but not required to meet the graduation requirements.

MANAGEMENT FUNDAMENTALS: LAW AND ETHICS (7143)

Classification: CTE

Prerequisite: Principles of Business Management

Open to: 10, 11, 12

Credit: 2 RW: Dual Credit

Business Law and Ethics provide an overview of the legal system in the business setting. Topics covered include the basics of the judicial system, contract, personal, employment and property law. Application of legal principles and ethical decision-making techniques are presented through problem-solving methods and situation analyses. Students incorporate law-related current events and pertinent legal cases in their work. Real-world applications of the law are also emphasized. ****Students will have the opportunity to earn dual credit through Ivy Tech Community College as long as they meet the Ivy Tech requirements and complete both semesters.**

MARKETING FUNDAMENTALS (5914)

Classification: CTE, Pathway Option

Prerequisite/Co-requisite: Principles of Business Management

Open to: 10, 11, 12

Credit: 2 RW Dual Credit

Marketing Fundamentals provides a basic introduction to the scope and importance of marketing in the global economy. Emphasis is placed on oral and written communications, mathematical applications, problem-solving, and critical thinking skills as they relate to advertising/promotion/selling, distribution, financing, marketing- information management, pricing, and product/service management. Competitive activities are provided for students to exercise skills and knowledge gained in the program through the

co-curricular organization DECA. ***Students will have the opportunity to earn dual credit through IvyTech as long as they meet the requirements.*

DIGITAL MARKETING (7145)

Classification: CTE, Pathway Option

Prerequisite/Co-requisite: Principles of Business Mgmt & Marketing Fundamentals

Open to: 11, 12

Credit: 2 RW

Digital Marketing provides an introduction to the world of e-commerce and digital marketing media. The course covers how to integrate digital media and e-commerce into organizational and marketing strategy. Students will explore e-commerce applications and the most popular digital marketing tactics and tools. Emphasizes familiarity with executing digital media, understanding the marketing objectives that digital media can help organizations achieve, and establishing and enhancing an organization's digital marketing presence.

SMALL BUSINESS OPERATIONS CAPSTONE (7201)

Classification: CTE, Pathway Option

Prerequisite: Principles of Business Mgmt, Marketing Fundamentals

Prerequisite/Co-requisite: Digital Marketing

Open to: 12

Credit: 2 FW-6FW

****Students must provide their own transportation for field experiences.*

This course will provide students with the opportunity to participate in an intensive work-based learning experience. The Business Management Capstone is designed to provide any student with the Business Management skills necessary to run their own business or to serve in upper-level management. Students will explore Management Theory, Marketing, Accounting, and Business Law. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

BUSINESS ADMINISTRATION CAPSTONE (7256)

Classification: CTE, Pathway Option

Prerequisite: Principles of Business Mgmt, Marketing Fundamentals,

Prerequisite/Co-requisite: Accounting Fundamentals

Open to: 12

Credit: 2 FW-6FW

****Students must provide their own transportation for field experiences.*

This course will provide students with the opportunity to participate in an intensive work-based learning experience. The Business Administration Capstone course will allow students to explore advanced topics in business leadership including Human Resources and International Business. Throughout the course students will develop business communication skills through work on projects, labs, and simulations. All of these pathway courses represent key business competencies required by nearly all postsecondary Business schools.

BUSINESS MANAGEMENT STANDARD LEVEL, INTERNATIONAL BACCALAUREATE (4582)

Classification: International Baccalaureate

Prerequisite: None

Open to: 11 and 12

Credit: 2 FW

The course covers the key characteristics of business organization and environment and the business functions of human resource management, finance and accounts, marketing and operations management. Links between the topics are central to the course. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real-world examples and case studies. The course encourages the appreciation of ethical concerns at both a local and global level. It aims to develop relevant and transferable skills, including the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; think strategically; and undertake long-term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis. Students are encouraged to take the IB SL exam.

BUSINESS MANAGEMENT HIGHER LEVEL, INTERNATIONAL BACCALAUREATE 1-4 (4580)

Classification: International Baccalaureate

Prerequisite: None

Open to: 11,

Credit: 2 FW each year, two year program

Business Management Higher Level, International Baccalaureate is a two-year program that begins junior year. Students will explore how and why individuals form organizations, organizational problems and life cycles, and the role of individuals and groups within organizations. It is based on the curriculum published by the International Baccalaureate Organization. Students gain a broad understanding of the variety of organizations that exist, including profit and non-profit, and will examine and apply the principles of organizations and the techniques practiced in organizational decision-making. Students also develop an understanding of the interdependency of organizations and their effect on problem-solving. *Note: This course aligns with course offerings for Group 3 for the IB diploma.* Curriculum and assessments within this course are designed to prepare students for International Baccalaureate's evaluation of their work. While it is not required that students take the IB exam, students will be prepared for that end goal.

CARMEL CAFE AND MARKET: Management

CTSO (Career and Technical Student Organization) (5237)

Classification: CTE

Prerequisites: Principles of Marketing or IB Business Management, interview and instructor approval required.

Open to: 11, 12

Credits: 2 credit fall semester, 1 credit spring, 6 credits maximum FW

***Students are required to enroll for CTSO Lab and Advanced CTE (see below) in the fall. Spring enrollment is Management only.

Leadership Development in Action is a project-based course in which students integrate higher-order thinking, communication, leadership, and management processes to conduct DECA *leadership projects at the local, state, or national level*. Each student will create a vision statement, establish standards and goals, design and implement an action plan and timeline, reflect on accomplishments, and evaluate results. Achievement will be documented through a required student portfolio. Students are required to 1) Participate in DECA and 2) Actively participate in Carmel Café Management in an assigned role.

Advanced CTE: Business Administration (6142)**Carmel Cafe & Marketing: Leadership**

Classification: CTE

Co-requisites: CTSO Carmel Cafe & Market

Open to: 11, 12

Credits: 1 FW, fall semester only

***This course is required for all CTSO students overseeing the operations of the Carmel Cafe & Market*

Computer Science

COMPUTING FOUNDATIONS (4565)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1 RW

***Beginning with the class of 2029, this graduation requirement can also be satisfied by taking two courses in a Computer Science/Cybersecurity pathway.

Computing Foundations for a Digital Age is designed to introduce students to five major topics within computer science including computing systems, networks and the internet, data and analysis, algorithms and planning, and impacts of computing. The course introduces foundational computing concepts while exploring current events and building critical thinking, collaboration, problem solving, and other important skills that are invaluable for life in a global and technologically advancing society.

PRINCIPLES OF COMPUTER SCIENCE, IU ACP (7183)

Classification: CTE, ACP, Pathway Option

Recommended Prerequisites: Algebra I

Open to: 9, 10, 11, 12

Credits: 2 FW, Indiana University ACP dual credit

Prerequisite for PLTW Cybersecurity and AP A

****Students can take either this course or Principles of Computer Science, AP. They may NOT take both.**

Computer Science introduces the structured techniques necessary for the efficient solution of business-related computer programming logic problems and coding solutions into a high-level language. The fundamental concepts of programming are provided through explanations and effects of commands and hands-on utilization of lab equipment to produce accurate outputs. Topics include program flow-charting, pseudo coding, and hierarchy charts as a means of solving problems. The course covers creating file layouts, print charts, program narratives, user documentation, and system flowcharts for business problems; algorithm development and review, flowcharting, input/output techniques, looping, modules, selection structures, file handling, control breaks, and offers students an opportunity to apply skills in a laboratory environment. ***Students will have the opportunity to earn dual credit through Indiana University Advanced College Program after meeting Indiana University requirements. Fees apply.*

PRINCIPLES OF COMPUTER SCIENCE, AP (7183)

Classification: CTE, AP, Pathway Option

Recommended Prerequisite: Algebra I

Open to: 9, 10, 11, 12

Credit: 2 FW

Prerequisite for PLTW Cybersecurity and AP A

****Students can take either this course or Principles of Computer Science, IU ACP. They may NOT take both.**

Principles of Computer Science introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. The rigorous course promotes deep learning of computation content, develops computational thinking skills, and engages students in the creative aspects of the field. Students may elect to take the AP Computer Science Principles Exam administered in May at their own expense.

CYBERSECURITY PLTW (7351)

Classification: CTE, PLTW, Pathway Option

Prerequisites: Principles of Computer Science, IU ACP or Principles of Computer Science, AP PLTW Cybersecurity and AP Computer Science A may be taken at the same time.

Open to: 10, 11, 12

Credit: 2 FW

The design of the course exposes high school students to the ever-growing and far-reaching field of cybersecurity. Students accomplish this through problem-based learning, where students role-play as cybersecurity experts and train as cybersecurity experts do. PLTW Cybersecurity gives students broad exposure to the many aspects of digital and information security while encouraging socially responsible choices and ethical behavior. It inspires algorithmic thinking, computational thinking, and especially, “outside-the-box” thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security. The course contains the following units of study: Personal Security, System Security, Network Security, and Applied Cybersecurity.

COMPUTER SCIENCE A, AP (7352)

Classification: CTE, AP, Pathway Option

Prerequisites: Computer Science, ACP or Computer Science Principles, AP and Algebra II

PLTW Cybersecurity and AP Computer Science A may be taken at the same time.

Open to: 10, 11, 12

Credits: 2 FW

Computer Science A assumes that the student has had prior programming experience. Students solve programming problems by planning, entering, and debugging solutions using the Java language. Topics covered include syntax, loops, methods, control structures, repetition tools, and simple data structures including arrays. The course follows the syllabus of the Advanced Placement (AP) Computer Science, a curriculum as prescribed by the College Board guidelines. Students may elect to take the AP Computer Science A Exam administered in May at their own expense. **This course counts towards required Science credits.*

COMPUTER SCIENCE: SPECIAL TOPICS (5252)

Classification: CTE

Prerequisites: AP Computer Science A

Open to: 11-12

Credits: 2 to 4 FW

****Opportunity to earn dual credit from Purdue University Fort Wayne. Fees apply.**

Special Topics is an extended experience designed to address the advancement and specialization of computer science careers. Students will have the option to design larger programs to solve complex problems. The emphasis is on deepening students' abilities to deal with abstraction, problem decomposition, and the interaction between program components. Students will develop their professional practice through analysis of more general problems, debugging and testing of their programs, and written presentation of their solutions. Topics include multidimensional arrays, event-driven programs, GUIs, class inheritance and interfaces, and libraries. PFW requires students to score a 4 or 5 on the AP Computer Science A exam in order to enroll in their CS161 course. Students are not required to participate in the dual credit program. Second semester, students have the opportunity to earn the Python Institute Certified Associate Python Programmer (PCAP) certification.

COMPUTER SCIENCE CAPSTONE (7353)

Classification: CTE

Prerequisites/Co-requisite: PLTW Cybersecurity and AP Computer Science A

Open to: 12

Credits: 2 FW-6FW

*****Students must provide their own transportation for field experiences.**

Computer Science Capstone provides a working understanding of the fundamentals of procedural and object-oriented program development using structured, modular concepts and modern object-oriented programming languages. Students will have the opportunity to job shadow and/or intern with a computer science-based career. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

CYBERSECURITY FUNDAMENTALS: AP NETWORKING (7179)

Classification: CTE/Pathway Option

Prerequisite: Principles of Computer Science, ACP or AP

Open to: 10, 11, 12

Credit: 2 FW

****AP Networking**

This course introduces fundamental networking protocols and their hierarchical relationship in the context of conceptual Information Communication Technology (ICT) frameworks. Students will learn how networked hosts and applications communicate across networks. Emphasis is placed on security throughout the entire SDLC (Systems Development Life Cycle). Students who pass the AP Networking exam earn an exam voucher for the CompTIA Network+ certification.

ADVANCED CYBERSECURITY: AP CYBERSECURITY (7178)

Classification: CTE/Pathway Option

Prerequisite: Cybersecurity Fundamentals

Open to: 11, 12

Credit: 2 FW

**AP Cybersecurity

Students will acquire the fundamentals of information and data security and understand the vulnerability most organizations have in their security systems with an emphasis on firewalls, security plans and Virtual Private Networks (VPNs). Discussions will include data security methods, authentication, network attacks, malicious code and viruses, wireless security, email and web security and disaster recovery. This course will also focus on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assessment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts, such as security planning and contingencies, security policies, security management models and practices and ethics. Students who pass the AP Cybersecurity exam earn an exam voucher for the CompTIA Security+ certification.

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Culinary and Hospitality

Culinary Arts and Hospitality offers students the opportunity to engage in hands-on practical experiences that can be applied to all levels of education beyond high school. Whether students want to study at a 4-year college, or vocational school, or go directionally into the workforce, the culinary courses offered will provide students with the skills necessary to be successful. For the student that doesn't want a culinary career but wants to learn to prepare nutritious foods for themselves and/or their family, then there is the opportunity to take food courses designed just for that purpose.

INTRODUCTION TO CULINARY ARTS: ORIENTATION (5438)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 1 RW

Formerly known as *Nutrition and Wellness*, the first semester of this course introduces students to basic culinary knowledge and skills. Students will learn the fundamentals of food preparation, safety, sanitation, and nutrition. Students will be able to explore careers in the Hospitality, Tourism, and Culinary Arts industry while learning skills transferable to their everyday well-being. Lab experiences emphasize industry practices and develop basic skills required for more advanced courses. It is a prerequisite for Advanced Foods: Baking and Regional Foods

ADVANCED NUTRITION AND WELLNESS: BAKING (5340)

Classification: CTE

Prerequisite: Introduction to Culinary: Orientation or Senior Foods

Orientation to Foods

Open to: 9, 10, 11, and 12

Credit: 1 RW

Baking offers the advanced foods student an opportunity to concentrate on baking skills and the careers associated with this culinary area. Students will study ingredients and their functions, participate in labs that emphasize experimentation and recipe modifications. Learn to evaluate products made in class by improving sensory evaluation skills.

ADV. NUTRITION AND WELLNESS: REGIONAL AMERICAN AND INTERNATIONAL FOODS (5340)

Classification: CTE

Prerequisite: Introduction to Culinary: Orientation or Senior Foods

Open to: 9, 10, 11, and 12

Credit: 1 RW

This advanced foods class exposes students to international cuisine and fosters an appreciation for cultural differences. Learn about diverse cultures by examining food customs, ceremonial foods, and geographical influences. Traditional recipes and unique methods of food preparation are emphasized through lab experiences, special projects, and guest speakers. European, Asian, and Middle Eastern cuisine is explored, as well as regional foods of the United States. Lab experiences will reinforce learning and enable students to prepare and taste a variety of ethnic recipes.

NUTRITION AND WELLNESS: SENIOR (5342)

Classification: CTE

Prerequisite: None (Cannot have earned a credit in Orientation to Foods)

Open to: 12

Credit: 1 RW

Emphasis on College and Career Readiness: This course is an introduction to food, nutrition, safety and sanitation, consumer buying skills, food storage, and food preparation skills. Lab experiences are designed to prepare students to be wise consumers, to be able to prepare healthy meals and to make healthy food choices. This course will enable students to realize the benefits of sound nutrition and apply these principles to their daily lives.

PRINCIPLES OF CULINARY ARTS (7173)

Classification: CTE, Pathway Option

Prerequisite: None

Open to: 9, 10, 11 and 12

Credit: 2 RW Dual Credit

Prerequisite for Culinary A and B

This course is for students considering a career pathway in the field of culinary arts and Hospitality and Tourism. Class experiences emphasize industry practices and basic industry skills. The course allows students to apply basic industry food safety and sanitation practices. Students will explore the food industry and examine their own goals. Topics include the kitchen brigade, basic food service equipment, knife skills and small ware, simple catering events, and preparing and serving safe food with training for certifications in food safety. Students will have the opportunity to become ServSafe and CPR certified. The course also allows for the expansion of basic cooking techniques such as dry heat and moist heat cooking, and frying. This course also provides a background and history of the hospitality industry and

introduces students to the broad spectrum of hospitality/food service organizations and career opportunities. Second-semester students will learn advanced food preparation techniques and menu planning skills. This lab-based course allows students to practice their skills with community catering activities. Students will be exposed to industry professionals' problems through problem-based learning experiences and field trips. Career and training opportunities are also explored. FCCLA membership is encouraged. This course is one of the required courses for the Culinary Arts & Hospitality Pathway.

*****Eligible students may earn six (6) Ivy Tech State College dual credits for HOSP 101 and HOSP 102***

CULINARY A (7171)

Classification: CTE, Pathway Option

Prerequisite/Co-requisite: Principles of Culinary and Hospitality

Open to: 10,11,12

Credit: 2RW Dual Credit

Students will learn the characteristics, functions and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will be made aware of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation. This course will engage students in hands-on learning of nutritional concepts such as preparing nutrient-dense meals or examining the nutritional needs of student-athletes. *****Eligible students may earn three (3) Ivy Tech State College dual credits for HOSP 104***

CULINARY B (7172)

Classification: CTE, Pathway Option

Prerequisites/Co-requisite: Principles of Culinary and Hospitality; Culinary A

Open to: 11 & 12

Credit: 2 RW Dual Credit

Culinary Arts B teaches students how to prepare the four major stocks, the five mother sauces (in addition to smaller sauces) and various soups. Additional emphasis is placed on the further development of classical cooking methods. This course will also present the fundamentals of baking science including terminology, ingredients, weights and measures, and proper use and care of equipment. Students will produce yeast goods, pies, cakes, cookies, and quick breads. *****Eligible students may earn six (6) Ivy Tech State College dual credits for HOSP 103 and HOSP 105***

CULINARY CAPSTONE (7233)

Classification: CTE, Pathway Option

Prerequisites/Co-requisite: Culinary B

Open to: 12

Credit: 2FW-6FW

*****Students must provide their own transportation for field experiences.**

Students will receive hands-on experience through supervised internship opportunities in the community. In addition, this course covers the necessary skills for proper recruiting, staffing, training, and management of employees at various levels. The course will help prepare the student for the transition from employee to supervisor. Additionally, it will help the student evaluate styles of leadership, and develop skills in human relations and personnel management. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

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Human Services and Education

Education Professions, Early Childhood Education, Human Services, and Criminal Justice all fall into this area of study. Working with people of all ages is the focus of these programs.

PRINCIPLES OF EARLY CHILDHOOD EDUCATION (7160)

Classification: CTE, Pathway Option

Prerequisite: None

Open to: 10, 11, 12

Credit: 2 FW

Prerequisite for Early Childhood Education A & B.

This course is for students who are interested in pursuing careers that work with young children such as education, psychology, pediatrics, nursing or counseling. Students study the physical, social, emotional, and intellectual development of children ages newborn to eight years old. Additional topics covered include parenting, pregnancy, brain development, guidance and discipline, child abuse, children's literature, health and wellness and careers in early childhood. This course is one of the required courses for the Early Childhood Education Pathway.

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

EARLY CHILDHOOD EDUCATION A (7158)

Classification: CTE, Pathway Option

Prerequisite: Principles of Early Childhood Education

Open to: 11 & 12

Credit: 2 FW

****Students must provide their own transportation for field experiences.*

****Field experience may require a background check and/or drug screening.*

This course covers working with children from birth to 8 years (3rd grade) and provides the foundations for early childhood education and other child-related careers. The course provides exposure to various types of programs such as K-3 elementary education, developmental preschool (ages 3-5), daycare and community-based early childhood centers. Intensive experiences in one or more early childhood settings will guide the student's practicum.

Students will plan, develop and implement lessons, assist classroom teachers in daily responsibilities, create learning games and prop boxes, explore children's literature and storytelling, and complete an observation project on the developmental milestones of a child. The school reserves the right to assign participants to a study hall if they are unwilling or unable to satisfactorily fulfill the obligations associated with their role. Students' placements are to be arranged by the CHS teacher once the course begins.

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

****This course meets concurrently with Early Childhood Education B for two periods.**

EARLY CHILDHOOD EDUCATION B (7159)

Classification: CTE, Pathway Option

Prerequisite: Principles of Early Childhood;

Open to: 11, 12

Credit: 2 FW

*****Students must provide their own transportation for field experiences.**

*****Field experience may require a background check and/or drug screening.**

ECE: B is a sequential course that builds on the foundational knowledge and skills of Early Childhood Education I, which is a required prerequisite. In ECE: B students further refine, develop, and document the knowledge, skills, attitudes, and behaviors gained in the foundational course. Major topics of ECE: B include: an overview of the Child Development Associate (CDA) credential, safe and healthy learning environment, physical and intellectual competence, social and emotional development, relationships with families, program management, and professionalism. The course standards parallel the expectations and documentation required for Child Development Associate (CDA) credentialing. These include rigorous levels of self-critique and reflection; performance assessments by instructors, parents, and other professionals; comprehensive assessment of knowledge through a standardized exam; and other professional documentation. Extensive experiences in one or more early childhood education settings are required: a minimum total of 480 hours must be accrued in ECE A and ECE: B. These experiences may be either school-based or "on-the-job" in community-based early childhood education centers, or in a combination of the two. ***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

****This course meets concurrently with Early Childhood Education B for two periods.**

EARLY CHILDHOOD EDUCATION CAPSTONE (7259)

Classification: CTE, Pathway Option

Prerequisites: Early Childhood Education A&B

Open to: 12

Credit: 2FW - 6FW

*****Students must provide their own transportation for field experiences.**

This course provides students with an overview of skills and strategies necessary to successfully pursue a certificate. Additionally, it provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula and services available to young children. This course also examines basic principles of child development, Developmentally Appropriate Practices (DAP), the importance of family, licensing, and elements of quality care of young children with an emphasis on the learning environment related to health, safety, and nutrition. Students may be required to complete observations and field experiences with children as related to this course. ****This course meets two periods on either gold or blue days. Capstone is an optional, additional experience, but not required to meet the graduation requirements.**

***Students will have the opportunity to earn dual credit through Ball State University if they meet the requirements. Fees apply.*

PRINCIPLES OF TEACHING (7161)

Classification: CTE, Pathway Option

Prerequisites: None

Open to: 10, 11, 12

Credit: 2FW Indiana University, ACP Dual Credit

Prerequisite for Education Professions A & B

This course is a prerequisite for several Carmel High School Graduation Pathways. Principles of teaching is a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations. Current trends and issues in education will be examined. Students will have volunteer and job shadowing experiences. Students who are interested in any education-related career such as a teacher/professor, counselor, social worker, or administrator should take this course. This course is one of the required courses for the Education Professions, LCP Art, and LCP Performing Arts Pathway.

EDUCATION PROFESSIONS A (7157)

Classification: CTE, Pathway Option

Prerequisites/Co-requisite: Principles of Teaching

Concurrent with Education Professions B

Open to: 11,12

Credit: 2FW Indiana University, ACP Dual Credit

*****Students must provide their own transportation for field experiences.**

*****Field experience may require a background check and/or drug screening.**

Students will examine the physical, social, emotional, cognitive, and moral development of children through adolescence with the focus on elementary and middle school ages. Students will participate in a yearlong internship. Explore teaching as a career through planning, writing, and implementing developmentally appropriate lesson plans; completing classroom observations; applying ethical and professional principles when working with children and adolescents, and investigating licensing requirements related to careers in education. Documentation of achievement is demonstrated in a portfolio based on professional teaching standards. Students are placed in an elementary or middle school by the high school supervising teacher. Students should be motivated toward exploring a career in education or related careers. Students must have a good attendance and behavior record, time management skills, a positive attitude with a strong work ethic, the ability to be self-directed and take initiative, and effective communication. *****Students will have the opportunity to earn dual credit through Indiana University Advanced College Program after meeting Indiana University requirements. Fees apply.***

This course must be taken with Education Professions B. Courses meet concurrently. The school reserves the right to assign participants to a study hall if they are unwilling or unable to satisfactorily fulfill the obligations associated with their role. Students' placements are to be arranged by the CHS teacher once the course begins.

EDUCATION PROFESSIONS B (7162)

Classification: CTE, Pathway Option

Prerequisite: Concurrent with Education Professions A

Open to: 11, 12

Credit: 2FW - Indiana University ACP Dual Credit

*****Students must provide their own transportation for field experiences.**

***Field experience may require a background check and/or drug screening.

Education Professions B is an in-depth, advanced study of careers, curriculum and instruction in elementary and/or middle school education through yearlong internships. This course will provide an introduction to the role technology plays in the modern classroom. Documentation of achievement is demonstrated through a final teaching philosophy statement, classroom learning and management plan, and presentation based on professional teaching standards. ***Students will have the opportunity to earn dual credit through Indiana University Advanced College Program after meeting Indiana University requirements. Fees apply.*

This course must be taken with Education Professions A. Courses meet concurrently. The school reserves the right to assign participants to a study hall if they are unwilling or unable to satisfactorily fulfill the obligations associated with their role. Students' placements are to be arranged by the CHS teacher once the course begins.

EDUCATION PROFESSIONS CAPSTONE (7267)

Classification: CTE, Pathway Option

Prerequisites: Education Professions A&B

Open to: 12

Credit: 2FW-6FW

***Students must provide their own transportation for field experiences.

This course provides students with an opportunity to explore topics of exceptional child and literacy development through children's literature. Students will gain a deeper understanding of inclusive teaching techniques along with policies, theories, and laws related to special education. Students will participate in a yearlong internship. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

PRINCIPLES OF CRIMINAL JUSTICE (7193)

Classification: CTE, Pathway Option

Prerequisites: None

Open to: 9-12

Credit: 2RW

Prerequisite for Criminal Justice A & B

Principles of Criminal Justice covers the purposes, functions, and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections. This course further explores the interrelationships and responsibilities of these three primary elements of the criminal justice system. This course is designed for students interested in learning about possible careers within public safety such as police officer, FBI agent, crime laboratory analyst, intelligence analyst, victim advocate, or forensic psychologist. This course is one of the required courses for the Criminal Justice Pathway.

***Students may have the opportunity to earn dual credit through IvyTech..*

CRIMINAL JUSTICE A (7191)

Classification: CTE, Pathway Option

Prerequisites: Principles of Criminal Justice

Open to: 10-12

Credit: 2RW

This course critically examines the history and nature of the major theoretical perspectives in criminology, and the theories found within those perspectives. Demonstrates the application of specific theories to explain violent and non-violent criminal behavior on both the micro and macro levels of analysis. Additionally, this course will introduce fundamental law enforcement operations and organization. Explore forensic science and its value in the courtroom: laboratory procedures and capabilities; crime scene searching and sketching; photography; firearms and tool mark identification; fingerprints; shoe and tire impressions; headlamp examination; arson; analysis and preservation of trace evidence. *Students are required to complete physical fitness-related activities during various units of study. ***Students may have the opportunity to earn dual credit through Ivy Tech.*

CRIMINAL JUSTICE B (7188)

Classification: CTE, Pathway Option

Prerequisites/Co-requisite: Principles of Criminal Justice

Open to: 11-12

Credit: 2RW

This course emphasizes the study of American criminal justice problems and systems in historical and cultural perspectives, as well as discussing social and public policy factors affecting crime. Multidisciplinary and multicultural perspectives are stressed. Additionally, this course takes a further examination of the American correctional system; the study of the administration of local, state, and federal correctional agencies. The examination also includes the history and development of correctional policies and practices, criminal sentencing, jails, prisons, alternative sentencing, prisoner rights, rehabilitation, and community corrections including probation and parole. Current philosophies of corrections and the debates surrounding the roles and effectiveness of criminal sentences, institutional procedures, technological developments, and special populations are discussed. ***Students may have the opportunity to earn dual credit through Ivy Tech.*

CRIMINAL JUSTICE CAPSTONE (7231)

Classification: CTE, Pathway Option

Prerequisites: Criminal Justice A; Prerequisite/Co-requisite: Criminal Justice B

Open to: 12

Credit: 2 FW-6FW

****Students must provide their own transportation for field experiences*

The Criminal Justice Capstone course allows students to complete additional instruction to earn credits toward a postsecondary certificate and includes a work-based learning component such as job shadowing, internship, etc. once the core content is completed. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

PRINCIPLES OF HUMAN SERVICES (7176)

Classification: CTE, Pathway Option

Prerequisites: None

Open to: 9-12

Credit: 2 RW

Prerequisite for Human Services A & B

Principles of Human Services explores the history of human services and the role of the human service worker. A human services worker provides a variety of services aimed at improving lives and

communities. The term is as broad as the needs and problems of the community base. This course is for students interested in careers that include areas such as counseling, psychology, faith-based services and initiatives, public policy, nutritionists, criminology, and youth and family assistance. Students will have the opportunity to job shadow with community partners. This course is one of the required courses for the Human Services Pathway.

FUNDAMENTALS OF HUMAN SERVICES (7276)

Classification: CTE

Prerequisite: Principles of Human Services

Prereq/Corequisite: Community Health Worker

Open to: 10, 11, 12

Credit: 2 RW

Fundamentals of Human Services examines key elements of effective delivery of human services. Topics of discussion include personal values, helping relationships, the impact of diversity, theories of helping, communication, problem-solving processes, crisis situations, abuse, and professional ethics. This course also provides training for identifying characteristics of a crisis and basic crisis intervention skills. Students will evaluate their own personal strengths, and limitations and discuss the importance of professional development for the human services social worker.

COMMUNITY HEALTH WORKER (7278)

Classification: CTE

Prerequisite: Principles of Human Services

Prereq/Corequisite: Fundamentals of Human Services

Open to: 10, 11, 12

Credit: 2 RW

***Students must provide their own transportation for field experiences

***Field experience may require a background check and/or drug screening.

Community Health Worker explores care coordination, case management, coaching, cultural competencies, Human Services Code of Ethics, professional development, and employment opportunities for community health workers and case managers. Examines background knowledge of the field of intellectual and developmental disabilities and issues pertaining to community social services. Presents practical and useful information regarding service availability and community resources for individuals and families living with disabilities. A field experience volunteering in the community is required for this course.

SOCIAL AND COMMUNITY SERVICES CAPSTONE (7279)

Classification: CTE, Pathway Option

Prerequisites: Fundamentals of Human Services and Community Health Worker

Open to: 12

Credit: 2 FW-6FW

***Students must provide their own transportation for field experiences

This course provides opportunities to increase the effectiveness in helping people. Intensive laboratory/field experiences in one or more human social service agencies are a required component of this course. Capstone is an optional, additional experience, but not required to meet the graduation requirements.

WORK-BASED LEARNING CAPSTONE (5974)

Classification: CTE

Prerequisites: Complete one advanced CTE course

Open to: 12

Credit: 1 FW-6FW

*****Students must provide their own transportation for field experiences**

This course is designed for students who have completed at least one advanced CTE course but have not completed all requirements to participate in a course-specific Capstone. Work Based Learning means sustained interactions with industry or community professionals in a real workplace setting. Students will receive instruction related to employability skills. Students will spend the majority of their time off campus and need their own transportation.

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Engineering & Technology

PROJECT LEAD THE WAY, ENGINEERING COURSES

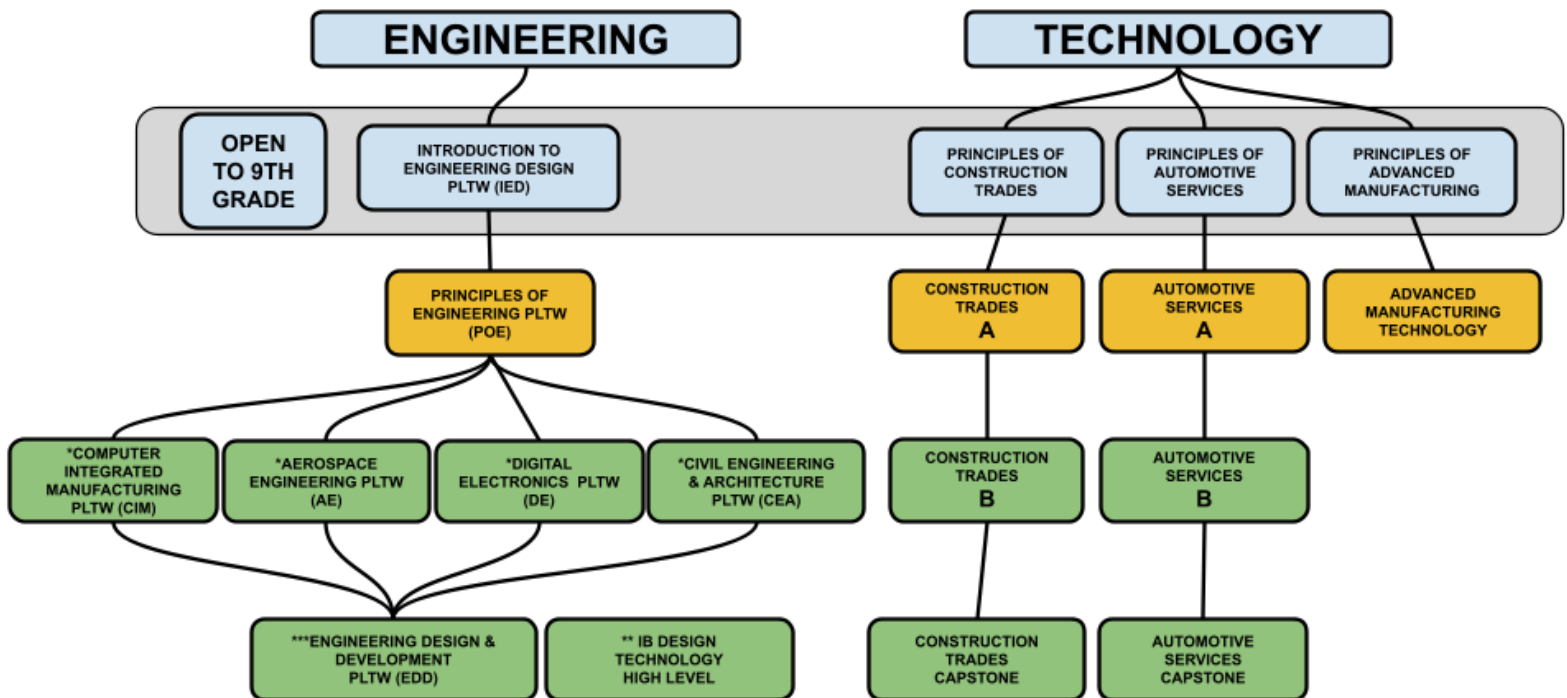
Project Lead the Way (PLTW) is a nationally recognized engineering curriculum that builds partnerships among high school, college, university, business and industry to provide students with real-world knowledge necessary to pursue a 2 or 4-year degree related to engineering or technology. The hands-on, problem-based approach adds rigor to the traditional technical programs with cross-curricular connections to our core academics at CHS. Many colleges and universities across the country accept PLTW classes for college credit. At Carmel High School, **all PLTW classes are fully weighted** and help satisfy a Technical Honors diploma. In addition, **Aerospace Engineering will earn a science credit for all diplomas.**

TECHNOLOGY COURSES (CONSTRUCTION, AUTOMOTIVE, MANUFACTURING)

Our technology courses utilize project-based learning in an engaging and interactive format. Courses with a hands-on focus allow learners the opportunity to work with actual tools and equipment that match those used in industry. Whether the student plans to immediately seek employment in the trades after high school or begin a two or four-year degree in related coursework, technology courses offer knowledge and skills students will benefit from throughout life.

ENGINEERING AND TECHNOLOGY

COURSES AND SEQUENCE



* Prerequisite of POE or Physics 1 or AP Physics

** IB Design Technology - Prerequisites of any PLTW Course. If IED only, see Dept Chair for approval

*** Engineering Design & Development - Prerequisites of IED, POE, and either CIM, DE, CEA, or AE

ENGINEERING

INTRODUCTION TO ENGINEERING DESIGN 1-2 (4802)

Classification: PLTW, Pathway Option

Prerequisite: Algebra 1 with a C or better

Open to: 9, 10, 11, 12

Credit: 2, Full Weight, Dual Credit option through IvyTech (6 credits)

Introduction to Engineering Design (IED) is an introductory course which develops a student's problem-solving skills with an emphasis placed on the development of three-dimensional solid models. Student work will progress from sketching simple geometric shapes to advanced solid modeling using state of the art computer software. They will learn the engineering design process and how it is used in industry to design products. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. Both techniques and equipment are state-of-the-art technology being used by engineers throughout the United States. Rapid prototyping, CNC and other designing and manufacturing aids will be discussed and demonstrated. This course is recommended for students interested in an engineering career path. *This is a required course in the Engineering Pathway.*

PRINCIPLES OF ENGINEERING 1-2 (5644)

Classification: PLTW, Pathway Option

Prerequisite: Intro to Eng Design 2 & Geom 2. **May take POE and DE concurrently with DC approval**

Open to: 10, 11, 12

Credit: 2, Full Weight, **Dual Credit w/ IvyTech but must have taken IED for Dual Credit to enroll**

In Principles of Engineering (POE,) Students will explore several areas of engineering throughout the course including thermodynamics, mechanisms, fluid power, electrical control systems, the strength of materials, statics, characteristics and properties of materials, quality control, review of the design process, material testing, and kinematics. By exploring various technology systems and processes, students will learn how engineers and technicians use math, science, and technology within a design process to benefit the human race. CAD and other material testing simulation software are used frequently throughout the course. Hands-on, problem-based activities supplement the lessons provided within the curriculum. *This is a required course in the Engineering Pathway.*

***NEW 25-26* COMPUTER INTEGRATED MANUFACTURING 1-2** (5534)

Classification: PLTW, Pathway Option

Prerequisite: Principles of Eng. 2 or Physics 1.

Open to: 10, 11, 12

Credit: 2, Full Weight

Computer Integrated Manufacturing is a course that teaches you how to take your design ideas and make them a reality through the application of the principles of manufacturing, rapid prototyping, robotics, and automation. This applied mechanical engineering-based course builds upon foundational 3D CAD solid modeling skills and expands them through finite element analysis (FEA), advanced assembly simulations, and computer aided machining (CAM). Students will learn about designing for manufacturing by prototyping their designs using industry-based equipment, including, woods laboratory equipment, metals laboratory equipment, welding, rapid prototyping, and computer numeral control (CNC) machines. Students will also be introduced to the fundamentals of robotics and learn how robots have transformed manufacturing. *This can be used to meet the graduation requirements for the Engineering Pathway.*

DIGITAL ELECTRONICS 1-2 (5538)

Classification: PLTW, Pathway Option

Prerequisite: Principles of Eng. 2 or Physics 1. **May take POE and DE concurrently with DC approval**

Open to: 10, 11, 12

Credit: 2, Full Weight, Dual Credit option through IvyTech (3 IvyTech credits)

Digital Electronics (DE) allows a student to receive a broad-based, technically oriented education that emphasizes the application of today's technology to solve problems, design solutions, and improve processes. The course introduces basic gate and flip-flop logic devices and their application in digital circuits. Digital Electronics will explore logical application of electronic circuits and devices. Students will use computer simulation software to design and test digital circuitry prior to the actual construction of circuits and devices. This course is recommended for students interested in an engineering career path. *This can be used to meet the graduation requirements for the Engineering Pathway.*

AEROSPACE ENGINEERING 1-2 (5518)

Classification: PLTW, Pathway Option

Prerequisite: Principles of Engineering 2 or Physics 1

Open to: 11, 12

Credit: 2, Full Weight, **Fulfills a Science requirement for all diplomas**

Aerospace Engineering (AE) transforms the dream of flight into vehicles that ignite our imagination. Students explore the fundamentals of flight in air and space through software simulations and hands-on experiences. Students will investigate aerodynamic design, flight characteristics, and the impact of aerospace technology on the environment. Students will learn how these concepts apply to a career in aerospace engineering and to other engineering fields. As part of the PLTW curriculum, many colleges and universities across the country offer college credit or advanced placement for this course. *This can be used to meet the graduation requirements for the Engineering Pathway.*

CIVIL ENGINEERING AND ARCHITECTURE 1-2 (5650)

Classification: PLTW, Pathway Option

Prerequisite: Physics 1, Principles of Engineering 2, or Introduction to Design Processes 2

Open to: 11, 12

Credit: 2, Full Weight, **Dual Credit w/ IvyTech but must have taken IED for Dual Credit to enroll**

Civil Engineering and Architecture (CEA) introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Students will design, simulate, and evaluate the construction of buildings and communities by hand and by computer software. Activities also include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design. As part of the PLTW curriculum, many colleges and universities across the country offer college credit or advanced placement for this course. *This can be used to meet the graduation requirements for the Engineering Pathway.*

ENGINEERING DESIGN AND DEVELOPMENT 1-2 (5698)

Classification: PLTW, Pathway Option

Prerequisite: IED and POE and either CIM, CEA, AE, or DE.

Open to: 12 only

Credit: 2, Full Weight

Engineering Design and Development (EDD) is a Capstone to the Engineering Program. This is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. *Capstone is an optional additional experience, but not required to meet the graduation component for the Engineering Pathway.*

INTERNATIONAL BACCALAUREATE - DESIGN TECHNOLOGY HIGH LEVEL (4822)

Classification: International Baccalaureate

Prerequisite: Any PLTW Course with a C+ or better. If IED is the only prerequisite, Department Chair Approval Required

Open to: 12 only

Credit: 2, Full Weight, High Level. College Credit Options available and many universities

IB Design Technology Higher Level aims to teach students not only design and technology, but also how to adapt to new experiences and approach problems with the appropriate skills and techniques to identify important elements and develop optimum solutions. This course is based on the curriculum published by the International Baccalaureate Organization. Students study six core topics: designers and the design cycle, the responsibility of the designer, materials, manufacturing processes and techniques, production systems, and clean technology and green design. Students must complete additional study in three topics: raw material to final product, microstructures and macrostructures, and appropriate technologies. Optional course topics include: food technology, computer-aided design, manufacturing and production, invention, innovation and design, health by design, and electronic products. Curriculum and assessments within this course are designed to prepare students for International Baccalaureate's evaluation of their work. While it is not required that students take the IB Design Technology exam at the end of the year, students will be prepared for that end goal.

ADVANCED MANUFACTURING

PRINCIPLES OF ADVANCED MANUFACTURING 1-2 (7108)

Classification: CTE

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 2 RW

This introductory lab-based course in materials and processes explores the technological processes used to obtain resources and change them into industrial materials and finished consumer products. Students will learn the processing of woods, metals, polymers, acrylics, and laminates. Safety is a central focus from day one, where students will be exposed and taught how to correctly use a variety of technology and tools to manipulate materials. Mass production projects will allow the students an opportunity to learn what a real manufacturing environment might look like. Various skills will be learned and performed through the use of hand tools, industrial machines, robots and computer-controlled equipment. Students will produce and take home a variety of individual and group-produced products and projects.

ADVANCED MANUFACTURING TECHNOLOGY 1-2 (7103)

Classification: CTE

Prerequisite: Principles of Advanced Manufacturing 2

Open to: 10, 11, 12

Credit: 2 RW

Advanced Manufacturing Technology is a laboratory-centered course focusing on two broad areas: Rapid Prototyping and Industrial Manufacturing Processes. Areas of study include safety, mass production, rapid prototyping, computer-aided manufacturing and mechanical principles. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students take this course with the goal of being skilled machine operators, repair technicians, manufacturing engineers, mechanical engineers, or working in management at any company that produces goods and services using advanced manufacturing techniques.

Students should be motivated toward exploring a related career to manufacturing, and students must have:

- Great attendance with no discipline issues.
- Time management skills.
- A positive attitude and strong work ethic.
- The ability to be self-directed, take initiative and get involved.

CONSTRUCTION TRADES

PRINCIPLES OF CONSTRUCTION TRADES 1-2 (7130)

Classification: CTE, Pathway Option

Prerequisite: None

Open to: 9, 10, 11, 12

Credit: 2 RW

This introductory course in construction is designed to help students understand how technology is used to produce our constructed environment. In this lab-based hands-on course, students will learn basic home building and repair. Other topics of study include plan reading and material estimating, as well as proper construction principles, and processes. The areas to be explored include carpentry, concrete and masonry, plumbing, electrical, insulation, and wall finishing. Each class is assigned a building lot inside the lab/classroom where they will be responsible for building a home from the foundation all the way to the roof system. Each class will design and build their home featuring different architectural design elements. *This is a required course in the Construction Trades Pathway.*

CONSTRUCTION TRADES A (7123)

Classification: CTE, Pathway Option

Prerequisite: Principles of Construction Trades 1-2 with an average grade of C or better

Open to: 10, 11, 12

Credit: 2 RW

This advanced construction course in small-space design and tiny home construction will immerse students in a variety of construction careers. From the design table to the last nail, students will build a tiny home that will be sold to a home buyer. Project management requires all students interested in this course to have good time management skills and the ability to be self-directed. Students will be involved with planning, designing, material purchasing, construction, and marketing of the tiny home construction project. Students will be expected to learn several trades throughout the course. All students will gain experience with building codes, blueprint reading, professional documentation, as well as safety standards and practices. A positive attitude and willingness to get involved is required of all students in this course in order to complete the project in the time frame of a school year. *This is a required course in the Construction Trades Pathway.*

Students should be motivated toward exploring a related career to manufacturing, and students must have:

- Great attendance with no discipline issues.
- Time management skills.

- A positive attitude and strong work ethic.
- The ability to be self-directed, take initiative and get involved.

CONSTRUCTION TRADES B (7122)

Classification: CTE, Pathway Option

Prerequisite: Construction Trades A with an average grade of C or better

Open to: 11, 12

Credit: 2 RW

This advanced construction course prepares students with framing skills along with interior and exterior finishing techniques. Topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation. *This is a required course in the Construction Trades Pathway.*

CONSTRUCTION TRADES CAPSTONE 1-2 (7242)

Classification: CTE, Pathway Option

Prerequisite: Construction Trades B with a grade of a C average or better. May also take "B" and Capstone concurrently

Open to: 12

Credit: 2 FW -6 FW

*****Students must provide their own transportation for field experiences.**

Students who have completed the first three courses of the Construction Trades pathway prior to their senior year can enroll in the Construction Trades Capstone course to gain valuable work-based learning experiences during the school day. Students in this course will complete an internship with a local business to apply what they have learned throughout the previous three courses.

Please note this is an off-campus learning experience, and the student will be required to provide their own transportation. *Capstone is an optional additional experience, but not required to meet the graduation component.*

AUTOMOTIVE SERVICES

PRINCIPLES OF AUTOMOTIVE SERVICES 1-2 (7213)

Classification: CTE, Pathway Option

Prerequisite: None
Open to: 9, 10, 11, 12
Credit: 2 RW

This introductory course exposes the student to the fundamental properties within society's transportation industry. Students will gain knowledge as well as experience in the service and preventative maintenance of today's land, air, and sea vehicles. Students will become familiar with EPA laws, ASE certification, vehicle warranty, and manufacturer's scheduled maintenance pertaining to the service and repair of today's vehicles. Students will also better understand how to compare and shop for service and repair, as well as purchase new and used vehicles. Teams of students will learn to problem solve, demonstrate troubleshooting, and gain service knowledge while performing various tasks on school-owned vehicles and test engines. Students with an interest in careers in automobile technology, mechanical engineering, and the service industry will benefit greatly from this course. *This is a required course in the Automotive Services Pathway.*

AUTOMOTIVE SERVICES A (7205)

Classification: CTE, Pathway Option
Prerequisite: Principles of Automotive Services 1-2 with an average grade of C or better
Open to: 10, 11, 12
Credit: 2 RW

This advanced course in automotive service is a one-year course that encompasses many of the advanced areas of an automobile and allows students to independently strive forward in subject areas of their own choosing. These subjects include but are not limited to steering & suspension, and braking systems. manual transmissions, welding, differentials, automatic transmissions, air conditioning, and engine repair. The open lab set-up provided allows students to truly pursue what most interests them, while at the same time, forcing them to utilize other academic skills to accomplish their goals. Mathematical skills will be reinforced through precision measuring activities as well as cost estimation and calculation activities. Practical physics will be reinforced in this course including the study such as viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors. *This is a required course in the Automotive Services Pathway.*

Students should be motivated toward exploring a related career in transportation, and students must have:

- Great attendance with no discipline issues.
- Time management skills.
- A positive attitude and strong work ethic.
- The ability to be self-directed, take initiative and get involved.

AUTOMOTIVE SERVICES B (7212)

Classification: CTE, Pathway Option
Prerequisite: Automotive Services A with an average grade of C or better
Open to: 11, 12
Credit: 2 RW

This course takes an in-depth look at engine performance, including concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. This course also takes an in-depth look at engine performance, including advanced concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. Hybrid/Alternative fuel technology will also be introduced. *This is a required course in the Automotive Services Pathway.*

AUTOMOTIVE SERVICES CAPSTONE 1-2 (7375)

Classification: CTE

Prerequisite: Auto Services B with a C average or better. May also take "B" and Capstone concurrently.

Open to: 12

Credit: 2 FW-6 FW

Students who have completed the first three courses of the Automotive Services pathway prior to their senior year can enroll in the Automotive Services Capstone course to gain valuable work-based learning experiences during the school day. Students in this course will complete an internship with a local business to apply what they have learned throughout the previous three courses.

Please note this is an off-campus learning experience, and the student will be required to provide their own transportation. *Capstone is an optional additional experience, but not required to meet the graduation component.*

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Greyhound Media Network

The Greyhound Media Network (GMN) encompasses four programs of study: CHTV (television), HiLite (online newsmagazine), Pinnacle (yearbook) and WHJE (radio). These programs are designed for students interested in a wide range of careers including broadcast, writing, journalism, digital media, digital design, and more. Students learn beyond just how to utilize a myriad of technologies to share information; they learn skills that increase employability such as organization, collaboration, time

management, speaking and writing. The GMN fourth-year students often become managers, editors, editors-in-chief, and directors in their programs. Leadership skills are honed through regular practice. Our pathways lead students to the acquisition of successful skills to carry throughout life no matter their field of interest. Additionally, the students play a vital role in the current events of our CHS community and ultimately our history.

Note: Several courses within our department count toward the required **Communications-Focused Course Requirement:**

- Visual Journalism I & 2
- HiLite and Pinnacle A
- HiLite and Pinnacle B (Full weight credit)
- HiLite and Pinnacle Capstone courses (Full weight credit)
- CHTV and WHJE B (Full weight credit)
- CHTV and WHJE Capstone (Full weight credit)

One Semester Courses

STUDENT MEDIA : VISUAL JOURNALISM I (1086)

Classification: Regular

Prerequisites: None

Open to 9, 10, 11 and 12

Credit: 1 RW

Fulfills Communications Focused Course Graduation Requirement

In this course, students will delve into multimedia journalism and graphic design models through a visual lens, exploring the powerful role that images and design play in media. They will engage in photography, create graphic packages and layouts, and investigate color theory and design techniques, all while learning how visuals and infographics influence various forms of media coverage and digital communication.

Students will gain hands-on experience with industry-standard software, including Photoshop, InDesign, and Illustrator. They will also practice the visual modes of news coverage across platforms, from print to digital, while examining the legal and ethical considerations that inform media decisions.

While students are encouraged to bring their own digital cameras, school-provided cameras will be available for use with a parent-signed equipment liability waiver.

This course serves as a prerequisite for both the Pinnacle yearbook staff and the HiLite news staff if not taking the pathway.

STUDENT MEDIA : VISUAL JOURNALISM II (1086)

Classification: Regular

Prerequisite: Visual Journalism I

Open to 9, 10, 11 and 12

Credit: 1 RW

Building on the foundation established in Visual Journalism 1, this course offers students the opportunity to deepen their practice and understanding of the visual elements of journalism and design, including photography, design, typography, and color theory.

Students will continue to refine their photojournalism and design skills, culminating in the creation of a personal web-based portfolio showcasing their work and analyses of professional projects. Proficiency in industry-standard software such as Photoshop, InDesign, and Illustrator will be emphasized throughout the course.

Students will explore the visual modes of news coverage across various platforms, from digital media through all forms of digital communication, while also examining the laws and ethics that inform media coverage decisions. Students will have an opportunity to follow their own path in choosing projects to exhibit their skills.

While students are encouraged to bring their own digital cameras, school-provided cameras will be available for use with a parent-signed equipment liability waiver.

Locally Created Pathway (LCP) : Civic Arts -- Media Across Platforms

- The following courses represent four pathways: CHTV, HiLite, Pinnacle, and WHJE.
- All pathways begin with the Principles of Broadcasting: Converged Media course.
- All students who take our courses are not required to be on a pathway.
- Some of the courses carry full weight credit. These will be marked below in the “credit” category.

PRINCIPLES OF BROADCASTING: CONVERGED MEDIA (7139)

Classification: CTE/Polytech Pathway Option

Prerequisite: None

Open to: 9,10,11,12

Credit: 2 RW

This course serves as the prerequisite for all of the Greyhound Media Network Pathways (CHTV, HiLite, Pinnacle, WHJE. See below for further information on these courses.). Designed to introduce students to the fundamentals of communicating across multiple media platforms for multiple purposes, it also aims to enhance essential communication skills.

Students will develop proficiency in speaking, listening, writing, and collaboration—skills crucial for any career path. The course combines traditional classroom learning with hands-on experiences, allowing students to engage with technologies from radio, television, and print/online hybrid journalism.

Topics covered will include historical and contemporary journalistic practices, law and ethics, vocal development, and writing for news, informational and entertainment purposes. Students will gain practical experience with studio equipment, digital production, and will receive an introduction to Adobe’s Creative Cloud, including hands-on experience with Audition, Illustrator, Photoshop, InDesign, and Premiere Pro.

Throughout the course, students will rotate through various topics and activities including on-air performance, production, news reporting, and career development. After completing this course, students

will be prepared to continue with the Media Across Platforms Pathway in HiLite (news) or Pinnacle (yearbook) **OR** with the Broadcast Pathway in CHTV (television) or WHJE (radio).

HiLite

DIGITAL MEDIA: HiLite A (1084)

Classification: CTE/Polytech Pathway Option

Prerequisite: Principles of Broadcast: Converged Media (7139)

OR Principles of Management (4562) coupled with Student Media: Visual Journalism I (1086)

OR Principles of Teaching (7181) coupled with Student Media: Visual Journalism I (1086);

Application required

Open to: 10, 11, 12

Credit: 2 RW

Fulfills Communications Focused Course Graduation Requirement

Digital Media is a study of media literacy and journalistic production skills. This course examines the impact of informational, narrative, and persuasive media on everyday life. This course will focus on changes in media and includes practice in many forms of journalism, audio/visual storytelling, multimedia storytelling, as well as different platforms such as online and social media. Students will analyze local, national, and global media through the lens of law, ethics, and social responsibility. As a student-run organization, the HiLite staff is comprised of reporters, photographers, interviewers, bloggers, and more. Students work as a team to produce content for our award-winning, online newsmagazine, HiLite, and by the end of the year are learning about leadership and management.

STUDENT MEDIA: HiLite B (1086)

STUDENT MEDIA: HILITE CAPSTONE (1086)

Classification: CTE/Career Pathway Option

Prerequisite: Digital Media: HiLite A (1084); Application required

Open to: 10, 11, 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

Student Media courses, grounded in the High School Journalism Standards and the Student Media Standards, serve as a continuation of multimedia journalistic studies. In these courses, students demonstrate their skills in writing and design for high school media, including school newspapers, yearbooks, and various other formats. They adhere to the ethical principles and legal boundaries that govern scholastic journalism, ensuring their work is responsible and credible. Through their projects, students express themselves publicly with meaning and clarity, aiming to inform, entertain, or persuade their audience. Continued use of technologies will hone student ability in several of the Adobe Creative Cloud suite of tools. Adobe Certifications available at the conclusion of these courses.

Additionally, students will earn valuable leadership opportunities, such as Editor-in-Chief, Section Manager, or Social Media Manager, among others. These roles empower them to take on significant

responsibilities within the media staff, preparing them for future career paths in journalism, communications, writing, or related fields such as marketing, public relations, and digital design.

Pinnacle Yearbook

DIGITAL MEDIA: PINNACLE A (1084)

Classification: CTE/Career Pathway Option

Prerequisite: Principles of Broadcast: Converged Media (7139)

OR Principles of Management (4562) coupled with Student Media: Visual Journalism I (1086)

OR Principles of Teaching (7181) coupled with Student Media: Visual Journalism I (1086);

Application required.

Open to: 10, 11, 12

Credit: 2 RW

Fulfills Communications Focused Course Graduation Requirement

Digital Media is a study of media literacy and journalistic production skills. This course examines the impact of informational, narrative, and persuasive media on everyday life. This course will focus on changes in media and includes practice in many forms of journalism, audio/visual storytelling, multimedia storytelling, as well as different platforms such as online and social media. Students will analyze local, national, and global media through the lens of law, ethics, and social responsibility. Students work as a team to produce content for our award-winning, 500-page, full-color Pinnacle yearbook and by the end of the year are learning about leadership and management in addition to honing their technology skills in the Adobe Creative Cloud suite of tools.

STUDENT MEDIA: PINNACLE B (1086)

STUDENT MEDIA: PINNACLE CAPSTONE (1086)

Classification: CTE/Career Pathway Option

Prerequisite: Digital Media: Pinnacle A (1084); Application required

Open to: 10, 11, 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

Student Media courses, grounded in the High School Journalism Standards and the Student Media Standards, serve as a continuation of journalism studies. In these courses, students demonstrate their skills in journalistic writing and design for high school media, including school newspapers, yearbooks, and various other formats. They adhere to the ethical principles and legal boundaries that govern scholastic journalism, ensuring their work is responsible and credible. Through their projects, students express themselves publicly with meaning and clarity, aiming to inform, entertain, or persuade their audience. Continued use of technologies will hone student ability in several of the Adobe Creative Cloud suite of tools. Adobe Certifications exams will be available at the conclusion of these courses.

Additionally, students will earn valuable leadership opportunities, such as Editor-in-Chief, Managing Editor or Section Editor among others. These roles empower students to take on significant responsibilities within the media staff, preparing them for future career paths in journalism, communications, writing, or related fields such as marketing, public relations, and digital design.

CHTV

PRINCIPLES OF BROADCASTING: CONVERGED MEDIA (7139)

Classification: CTE/Polytech Pathway Option

Prerequisite: None

Open to: 9,10,11,12

Credit: 2 RW

This course serves as the prerequisite for both of the Greyhound Media Network Pathways (Broadcast or Media Across Platforms). Designed to introduce students to the fundamentals of communicating across multiple media platforms for multiple purposes, it also aims to enhance essential communication skills.

Students will develop proficiency in speaking, listening, writing, and collaboration—skills crucial for any career path. The course combines traditional classroom learning with hands-on experiences, allowing students to engage with technologies from radio, television, and print/online hybrid journalism.

Topics covered will include historical and contemporary journalistic practices, law and ethics, vocal development, and writing for news, informational and entertainment purposes. Students will gain practical experience with studio equipment, digital production, and will receive an introduction to Adobe's Creative Cloud, including hands-on experience with Audition, Illustrator, Photoshop, InDesign, and Premiere Pro.

Throughout the course, students will rotate through various topics and activities including on-air performance, production, news reporting, and career development. After completing this course, students will be prepared to continue with the Media Across Platforms Pathway in HiLite (news) or Pinnacle (yearbook) **OR** with the Broadcast Pathway in CHTV (television) or WHJE (radio).

CHTV A (7306)

Classification: CTE/Career Pathway Option

Prerequisite: Principles of Broadcast Required; Application Required

Open to: 10, 11, 12

Credit: 2 RW

This class offers a comprehensive exploration of video and audio production techniques across television and other digital platforms. Students will acquire essential skills for media production and on-air work in various formats. The course emphasizes the video production process, covering message development, directing, camera operations, video switching, and graphic creation. Additionally, students will delve into news production, commercial and PSA production, explore career options, and gain knowledge in interviewing techniques.

CHTV B (7307)

Classification: CTE/Career Pathway Option

Prerequisite: CHTV A; Application Required

Open to: 11, 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

This class is designed to give students an opportunity to produce projects for the school television station that are more intricate in design and content. This course will also allow students to explore the management and leadership positions available at CHTV. Students work with faculty and community leaders to create monthly shows for our stations. Other projects include the annual National Honor Society Induction Ceremony, live sports broadcasts, building content for the CHTV YouTube channel, and working on extended interviews with members of the school, district, and community. The faculty advisor and students meet to discuss and plan individual projects. Projects and responsibilities may require some after-school time.

CHTV Capstone (7308)

Classification: CTE/Career Pathway Option

Prerequisite/Co-requisite: CHTV B; Application Required

Open to: 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

The Capstone class is designed to give students an opportunity to produce projects for the school television station that are professional in nature. This course will also allow students to explore the management and leadership at CHTV in roles such as Station manager, News Director and Sports Director. Students will collaborate with different internal and external clients who request specific video packages to meet their informational needs. Student choice projects range from documentaries to music videos to talk shows. The faculty advisor and students meet to discuss and plan individual projects. Projects and responsibilities may require some after-school time.

WHJE

WHJE A (7306)

Classification: CTE/Career Pathway Option

Prerequisite: Principles of Broadcast: Converged Media (7139)

OR Principles of Management (4562) coupled with Student Media: Visual Journalism I (1086)

OR Principles of Teaching (7181) coupled with Student Media: Visual Journalism I (1086);

Application required

Open to: 10, 11, 12

Credit: 2 RW

This class is for all second-year WHJE Radio program members and is the prerequisite for Radio WHJE B. Students in this class will assist in the operation and programming of 91.3 FM. WHJE is a student-run, award-winning, non-commercial educational radio station owned by Carmel Clay Schools. Students will be expected to be proficient in their knowledge of FCC rules and regulations. During the school year students will rotate through four specific department assignments: Live Programs, Podcasts, Public Service Announcements, and News. Each grading period the students will encounter department-specific tasks including, but not limited to on-air announcing, news reporting, production, and interviewing. In addition, students will create feature projects each grading period including, but not limited to music reviews, personal commentaries, news features, radio dramas. Students will also have the opportunity to broadcast live sporting events, as well as represent WHJE at a variety of community and fundraising events. Some after school hours are required.

WHJE B (7307)

Classification: CTE/Career Pathway Option

Prerequisite: WHJE A (7306); Application Required

Open to: 11, 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

This class carries a weighted credit and simulates a professional working environment. Students in this class will be offered accelerated experiences in radio broadcasting. Students may serve as advanced staff members, choosing to function within one department the entire year. They will develop special programming/projects within their department including, but not limited to talk-based shows featuring CHS and CCS leaders, coverage of Carmel community and fundraising events and live sporting events, and creation of imaging/branding for WHJE. Students have the opportunity to design their learning experience based on their interests and future plans. Careers are discussed. Some after school hours are required.

WHJE Capstone (7308)

Classification: CTE/Career Pathway Option

Prerequisite/Corequisite: WHJE B; Application Required

Open to: 12

Credit: 2 FW

Fulfills Communications Focused Course Graduation Requirement

WHJE Capstone (fourth year) students can apply for director positions within the WHJE program. These positions include, but are not limited to, operations, live shows, news, promotions, public service announcements, sports, and broadcast technician. Directors will organize staff personnel, monitor the production of content, and ensure the proper operation of all audio equipment and systems. Students enrolled in WHJE B and WHJE Capstone are the sole operating staff at 91.3 FM WHJE Carmel and truly represent the embodiment of student leadership. After school hours are required.

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Health Sciences

CERTIFIED NURSING ASSISTANT (CNA): NURSING

***Students must provide their own transportation for field experiences

Nursing is an extended laboratory course designed for students who have an interest in health sciences and may someday continue their education in nursing or a health-related field. This program includes 7168, 5274, 7166, and the option of the Capstone. After the successful completion of the course, students

are prepared for entry-level employment at hospitals, doctor's offices, and extended care facilities by preparing them to become Certified Nursing Assistants (CNA). Students will be qualified to take the state certification test for Certified Nursing Assistant. The test will be administered through Senior1Care and students will additionally be licensed as home health aides.

Most colleges are looking for students to be CNA certified before they are admitted into a college health care program.

Students will practice technical skills in the classroom and then work at clinical sites under the direction of licensed nurses. These sites may include extended care facilities, hospitals and home health agencies. Throughout the course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels; an overview of the healthcare delivery systems, healthcare teams and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job-related skills to record patient medical histories and symptoms; provide medication and treatments; consult with physicians and other healthcare providers; operate and monitor medical equipment; perform diagnostic tests; teach patients and families how to manage their illness or injury, and perform general health screenings.

Clinical hours: Students are required to attend clinicals located in Westfield, to satisfy the required clinical experience. *They must provide their own transportation.* 35 days are provided during the months of October to March. These experiences are typically during CNA class time.

All students must complete, on their own, a physical (school sport physicals are acceptable) and 2-step TB test. In order to participate in clinicals, a criminal background check will be completed at the start of class. This will be set up once the course has started. Students will be provided with 2 sets of scrubs and are required to wear them in class.

A government issued ID or passport and a copy of a student's social security card or Tax ID number is required for the state test. School ID's are not valid.

****Students have the opportunity to earn dual credit through Ivy Tech Community College if they meet the Ivy Tech requirements.****

PRINCIPLES OF HEALTHCARE (7168)

Classification: CTE

Open to: 11 and 12

Credits: 1RW Fall, 1 RW Spring

Principles of Healthcare content examines skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

HEALTHCARE FUNDAMENTALS (MEDICAL TERMINOLOGY) (5274)

Classification: CTE

Open to: 11 and 12

Credit: 1RW Fall, 1 RW Spring

***Field experience may require a background check and/or drug screening.

Healthcare Fundamentals prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Additionally, the course introduces cells, tissues, and human anatomy highlighting essential physiological principles through a systemic approach. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records.

HEALTHCARE SPECIALIST: CNA (7166)

Classification: CTE

Open to: 11 and 12

Credit: 1RW Fall, 1 RW Spring

***Field experience may require a background check and/or drug screening.

The Healthcare Specialist: CNA course prepares individuals desiring to work as nursing assistants with the knowledge, skills, and attitudes essential for providing basic care in extended care facilities, hospitals, and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant (CNA) training and for health care workers in long-term care facilities.

NURSING CAPSTONE (7255)

Classification: CTE

Prerequisite: CNA: Nursing and earn their CNA certification

Open to: 12

Credits: 1FW-6FW

***Students must provide their own transportation for field experiences

Students will acquire additional knowledge and skills necessary to work in a variety of health care settings. Students will complete either an internship or gain employment using their CNA certification.

EMERGENCY MEDICAL SERVICES CAREER PATHWAY

Emergency Medical Services prepares students for a state certification which may lead to a career in Emergency Medical Services. This program includes 7168, 5274, and 7165 with the option of the EMT Capstone. Examples of those careers include Emergency Medical Technician and Paramedic. This course is designed for persons desiring to perform emergency medical care. Theories, techniques, and operational aspects of pre-hospital emergency care, within the scope and responsibility of the basic emergency medical technician, are covered in this course. Students will learn to recognize the seriousness of the patient's condition, use the appropriate emergency care techniques and equipment to

stabilize the patient, and safely transport them to the hospital. The handling of victims of hazardous materials accidents is also addressed in this course. Opportunities for laboratory practice and clinical observation in a hospital emergency room and ambulance are also included to provide occasions for students to further develop clinical skills and appropriate ethical behavior.

Students will need to provide their own transportation to the required clinical observations and/or ambulance ride alongs.

****Students have the opportunity to earn dual credit through Ivy Tech Community College if they meet the Ivy Tech requirements.****

PRINCIPLES OF HEALTHCARE (7168)

Classification: CTE

Open to: 11 and 12

Credit: 1RW Fall, 1 RW Spring

Principles of Healthcare content examines skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

HEALTHCARE FUNDAMENTALS (MEDICAL TERMINOLOGY) (5274)

Classification: CTE

Open to: 11 and 12

Credit: 1RW Fall, 1 RW Spring

*****Field experience may require a background check and/or drug screening.**

Healthcare Fundamentals prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Additionally, the course introduces cells, tissues, and human anatomy highlighting essential physiological principles through a systemic approach. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records.

EMERGENCY MEDICAL TECH (7165)

Classification: CTE

Open to: 11 and 12

Credit: 1RW Fall, RW Spring

*****Field experience may require a background check and/or drug screening.**

The Emergency Medical Technician (EMT) course is based on the training program developed by the Department of Transportation and the Emergency Medical Services Commission of Indiana. It covers theories, techniques, and operational aspects of pre-hospital emergency care within the scope and responsibility of the emergency medical technician (EMT). It requires laboratory practice and clinical observation in a hospital emergency room and ambulance. Successful completion of the course meets national requirements to test for certification as an NREMT.

EMT CAPSTONE (7255)

Classification: CTE

Prerequisite: EMT and EMR certification

Open to: 12

Credits: 1FW-6FW

****Students must provide their own transportation for field experiences*

Students will acquire additional knowledge and skills necessary to work in a variety of health care settings. Students will complete either an internship or gain employment using their EMR certification.

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Work-Based Learning

The Career Capstone Course provides students with an opportunity to participate in an immersive work-based learning experience with a community partner. This experience takes the form of an internship during two blocks of the school day, but it may also extend outside of school hours in some cases. The internship experience may be paid or unpaid.

**Please note that the capstone courses for the engineering career pathway, exercise science, digital design, communications/media, cybersecurity, computer science and the biomedical innovations career pathway are in-house classes. However, students may choose to engage in an internship if they schedule two additional periods for the Work-Based Learning Capstone.*

Over the course of the internship, students will apply standards learned in previous courses, but they will also work to learn new skills in order to satisfy the state standards for their specific career capstone course.

Conditions for participation:

- Students must complete a career pathway with a “C” average.
 - Students must complete the Principles course and the Concentrator A course BEFORE their senior year.
 - Students may complete the Concentrator B course before OR concurrently with the capstone course.
 - However, if the student drops Concentrator B, they are not allowed to continue in the capstone course.
- Only seniors will be considered for the career capstone course.
- Students must provide their own transportation to and from the worksite.
- Students must demonstrate a positive attendance history over the course of their time at CHS.
- Students must receive positive recommendations from career pathway teachers and the student services office.

The process of participating in a career capstone course begins in December of the student’s junior year. Interested students agree to meet during their Spring semester with the WBL coordinators to prepare for and engage in the interview process. Students that successfully complete the interview process and commit to an internship are then enrolled for the capstone course throughout their senior year.

Withdrawal from the course is not optional once a student has committed to their internship and matched with a mentor. Withdrawal or termination during the course of the internship may result in a “withdrawal/fail” on their high school transcript.

The process of participating in a career capstone course begins in December of your junior year:

The Work-Based Learning Coordinators work to place students and ensure there is a good fit between employer and student. Placements are contingent upon the employer and may not be guaranteed.

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Additional Polytechnic Career Pathway Options through The Pursuit Institute

The Pursuit Institute was created in 2021 as a partnership among all Hamilton County Schools. At The Pursuit Institute, we prepare Hamilton County students for a wide range of high-wage, high-skill, and in-demand careers. By forgoing a brick-and-mortar building and coordinating robust programs directly with education, industry, and community hosts, our career and technical education pathways are scalable and better positioned to meet local employers' needs. The Mission of The Pursuit Institute is: *To create a holistic system that enables the successful transition of students into connected postsecondary educational institutions as well as an equally accessible community of engaged employers.*

These Career Pathways are offered off of the Carmel High School campus. Students must provide their own transportation. In some cases, students might need to provide their own lunch.

AVIATION CAREER PATHWAY

Aviation Management involves the exploration of various different careers within the Aviation industry. This course, in collaboration with Republic Airways and LIFT Academy, will provide students the opportunity to explore multiple careers in aviation with multiple on-ramps to different careers within the field. Students will be able to begin their journey in management or becoming a pilot through the completion of Ground School requirements.

PRINCIPLES OF AVIATION MANAGEMENT: TPI (7214)

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

*****Students must provide their own transportation for field experiences.**

This course provides the student the opportunity to develop an understanding of various aspects of the aviation industry to include general regulations and laws associated with the field. Included is an overview of the aviation field and all employment opportunities. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills. Students will also learn of the departments associated with an airport and their impact on the industry as a whole.

PRIVATE PILOT THEORY: TPI (7217)

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

*****Students must provide their own transportation for field experiences.**

The student will receive ground school knowledge required for certification as a private pilot with an airplane single engine land rating. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills.

AVIATION OPERATION AND SAFETY: TPI (7207)

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

This course is an overview of general aviation operations, including the operation and management of the Fixed Base Operation (FBO). It introduces the challenges and complexity of aviation security faced by aviation professionals across the industry and traces the evolution of current security approaches and explores technologies and processes targeting threat mitigation and improved operational efficiency. Emphasis will be placed on financial and operational considerations as well as on regulatory requirements and constraints.

AVIATION MANAGEMENT CAPSTONE: TPI (7385)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 FW Spring

***Students must provide their own transportation for field experiences.

Aviation Management Capstone is an introduction to the aviation weather service program. Course topics include the National Weather Service, Flight Service Stations, International Civil Aviation Organization, and analyzing and interpreting weather reports and maps. Additionally, this course will prepare students for certification as an Instrument Pilot with an Airplane Single Engine Land rating. Areas of study include basic instrument flying, flying instruments, IFR charts and approach plates, IFR regulations and procedures, ATC clearances, and IFR flight planning.

Dual Credit: Dual credit is offered through Ivy Tech. Students will earn college credit in the following courses: AVIT 111 Principals, AVIT 120 Concentrator A. If passed Ground School — Concentrator B AVIT 135.

PHARMACY CAREER PATHWAY

Pharmacists dispense prescription medications to patients and offer expertise in the safe use of prescriptions. They also may conduct health and wellness screenings, provide immunizations, oversee the medications given to patients, and provide advice on healthy lifestyles. Pharmacy technicians work closely with a pharmacist to ensure the health and safety of their patients. They locate, dispense, pack, and label a prescribed medication for a patient that is then reviewed for accuracy by a pharmacist before dispensed to the patient. The role of a Pharmacy Technician varies depending on whether they are in an in-patient or retail pharmacy setting.

PRINCIPLES OF PHARMACY TECH: TPI (7137)

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Principles of Pharmacy Tech is an introduction to the principles of pharmacotherapy including basic pharmacology, medication management, and safety. Students will be introduced to various systems of the human body and the most important drugs affecting these systems. Students will develop an understanding of drug classes and their mechanism of action when prescribed for a particular disease state. This course will also introduce the essential mathematical concepts and skills needed for pharmacy practice. Students will be introduced to metric, avoirdupois, and apothecary systems of measurements. Other calculation methods that will be studied are ratio and proportion, dimensional analysis, and calculations for compounded products.

HEALTHCARE FUNDAMENTALS: TPI (5274) Formerly Medical Terminology

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Healthcare Fundamentals prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Additionally, the course introduces cells, tissues, and human anatomy highlighting essential physiological principles through a systemic approach. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records.

PHARMACY TECH: TPI (7167)

Classification: CTE

Open to: 11 and 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

The Pharmacy Technician course introduces the student to the foundational principles, career concepts, and entry-level skills and duties typically performed by a pharmacy technician in community/retail, hospital/health system, and other pharmacy practice settings. Classroom and lab activities provide opportunities for demonstration of knowledge, understanding, and proficiency in technical and customer service applications related to the role and scope of practice of a pharmacy technician. Essential pharmacy calculations are presented with emphasis on the development of problem-solving skills for safe pharmacy practices.

PHARMACY CAPSTONE: TPI (7310)

Classification: CTE

Prerequisite: Principles of Pharmacy Tech, Healthcare Fundamentals, Pharmacy Tech

Open to: 12

Credit: 1 FW Fall, 1 FW Spring

***Students must provide their own transportation for field experiences.

The Pharmacy Capstone course builds upon the foundational knowledge learned in the Pharmacy Tech course. In addition to advanced pharmacology and dispensing labs, students will also explore Pharmacy law and ethics. Time is built into the capstone course to allow students to complete their practicum as well.

VETERINARY SCIENCES CAREER PATHWAY

Veterinary science is a multidisciplinary field that focuses on the health and well-being of animals, including pets, livestock, and wildlife. It encompasses the diagnosis, treatment, and prevention of diseases and injuries in animals, as well as research to advance animal health. Veterinary professionals, including veterinarians and veterinary technicians, play crucial roles in ensuring animal welfare and public health. Their work ranges from caring for beloved pets in clinics to monitoring the health of livestock in agriculture and safeguarding wildlife populations. Veterinary science is not only essential for animal health but also for human health, as it addresses zoonotic diseases and the interconnection between animals, humans, and the environment.

PRINCIPLES OF VETERINARY SCIENCE: TPI (7280)

Classification: CTE

Open to: 11 (*This is a 2 year program*)

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Principles of Veterinary Science is a two-semester course that provides students with an overview of the small and large animal veterinary industry which includes companion, food, and exotic animals. Principles of Veterinary Science will cover skills common to specific veterinary career topics such as animal care, veterinary assistant, veterinary technician, and veterinarian. Students will learn foundational veterinary knowledge for large and small animals which includes practical lab skills and common office practices.

VETERINARY SCIENCE: TPI (7281)

Classification: CTE

Open to: 11 (*This is a 2 year program*)

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Veterinary Science is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to medical terminology, laboratory procedures, clinical examination procedures, principles of animal diseases, as well as work in veterinary clinic management and veterinary law and ethics.

ADVANCED LIFE SCIENCE, ANIMALS: TPI (5070)

Classification: CTE

Open to: 11 (*This is a 2 year program*)

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Advanced Life Science: Animals is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to history and trends in animal agriculture as related to animal welfare, husbandry, diseases and parasites, laws and practices relating to handling, housing, environmental impact, global sustainable practices of animal agriculture, genetics, breeding practices, biotechnology uses, and comparative knowledge of anatomy and physiology of animals used in animal agriculture.

VETERINARY SCIENCE CAPSTONE: TPI (7282)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 RW Spring

***Students must provide their own transportation for field experiences.

Veterinary Science Capstone is a two-semester course that builds upon the knowledge and skills developed in the animal and veterinary courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience. Students will explore concepts related to pharmacy and pharmacology, medical math, animal nursing, radiology and ultrasound imaging, surgical preparation and assisting.

DENTAL CAREERS CAREER PATHWAY

Dental careers encompass many professions, including dental assistants, dental hygienists, and dental laboratory technicians, all working within a team to provide value and service to their clients. Dental assistants are responsible for providing the patient with high quality care by performing a variety of office, laboratory, and patient care duties. This usually entails helping the dentist handle patients, instruments, and supplies during the treatment of the teeth, mouth, and gums.

***Students must provide their own transportation for field experiences.

PRINCIPLES OF DENTAL CAREERS: TPI (7315)

Classification: CTE

Open to: 11

Credit: 1 RW Fall, 1 RW Spring

Principles of Dental Careers will provide the foundational knowledge and skills necessary to pursue a career in the Dental Field. A focus will be placed on the role of the modern dental assistant and will cover key pre-clinical procedures and beginning dental terminology.

***Students must provide their own transportation for field experiences.

DENTAL CAREERS FUNDAMENTALS: TPI (7316)

Classification: CTE

Open to: 11

Credit: 1 RW Fall, 1 RW Spring

Dental Careers Fundamentals will build upon the knowledge and skills in the principles course. Students will understand and practice beginning chairside functions of the Dental Assistant along with a focus on the Anatomy and Physiology of the head, neck and oral cavity. Students will also study tooth anatomy, physiology and morphology. This part of the program will prepare students for the Anatomy, Morphology, and Physiology exam of the NELDA certification.

ADVANCED DENTAL CAREERS: TPI (7317)

Classification: CTE

Open to: 11

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Advanced Dental Careers Fundamentals will build upon the knowledge and skills developed in the first two courses. Students will study more advanced chairside assisting functions along with advanced infection control techniques. Additionally, students will explore preventive dentistry practices and dental emergencies. This course will prepare students for the ICE exam of the NELDA certification.

DENTAL CAREERS CAPSTONE: TPI (7318)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 RW Spring

***Students must provide their own transportation for field experiences.

Dental Careers capstone will provide the opportunity for increased skill development in clinical support through work-based learning experiences. Students will also prepare for the Radiation, Health and Safety which is the third and final part of the NELDA certification. The capstone course may also provide the opportunity to review and prepare for the entire NELDA certification.

CLINICAL MEDICAL ASSISTANT (CCMA) CAREER PATHWAY

Medical assistants support physicians with patient care, such as administering medications, interpreting various medical data, understanding and following medical charts and procedures, administering vaccines, obtaining patient vitals and medication history, performing laboratory tests and drawing blood. They also might help with administrative tasks such as updating patient charts or answering medical phone calls.

Required Prerequisites: Students Must take CNA or EMT as in 11th grade. The CCMA program is only open to 12th graders.

PRINCIPLES OF HEALTHCARE: TPI (7168)

Classification: CTE

Open to: 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Assignments and guest speakers are organized and planned around the Healthcare Specialist Capstone.

HEALTHCARE FUNDAMENTALS: TPI (5274)

Classification: CTE

Open to: 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

CERTIFIED CLINICAL MEDICAL ASSISTANT (CCMA): TPI (7164)

Classification: CTE

Open to: 12

Credit: 1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

The Certified Clinical Medical Assistant course will prepare students for the National Healthcare Association CCMA exam. Instruction includes taking and recording vital signs, preparing patients for examination, patient education, and assisting the physician during the exam. The collecting and preparation of laboratory specimens and basic laboratory tests will be covered. Prepares for the administration of medication, venipuncture, ECG, and wound care. Provides a basic understanding of the clinical and administrative duties and responsibilities pertinent to medical offices. Includes instruction in medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, and processing mail. Written, verbal and nonverbal communications according to patient needs are covered as well as documentation and associated legal and ethical boundaries.

HEALTHCARE SPECIALIST CAPSTONE: TPI (7255)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 FW Spring

***Students must provide their own transportation for field experiences.

The Healthcare Specialist Capstone course builds upon the foundational knowledge learned in the CCMA and the CNA courses. This course will consist of an entry-level internship position and duties designed to develop knowledge base and competency level while performing medical assistant functions under the direct supervision of a licensed medical professional. Functions performed as an intern include, but are not limited to: interpreting various medical data, understanding and following medical charts and procedures, administering vaccines, drawing blood, obtaining patient vitals and medication history and customer service which includes answering phones and corresponding with doctors/nurses, insurance companies and customers/patients.

Certifications: Students have the opportunity to earn the following certifications: Certified Clinical Medical Assistant (CCMA) through National Healthcareer Association (NHA), CPR and First Aid Certification through American Red Cross, Certified Phlebotomy Technician (CPT) through National Healthcareer Association (NHA) and certification in Phlebotomy after taking CCMA.

SURGICAL TECHNICIAN CAREER PATHWAY

A surgical technician, also known as a surgical technologist, is a vital healthcare professional who plays a central role in the operating room. They work closely with surgeons, nurses, and other surgical team members to ensure surgical procedures run smoothly. Their responsibilities include preparing the operating room, sterilizing instruments, and assisting during surgery by passing instruments, maintaining aseptic conditions, and helping with patient care. Surgical technicians are crucial in maintaining patient safety and ensuring that surgical procedures are conducted efficiently and effectively.

***This program centers around Ophthalmology (Diagnosis and treatment of disorders of the eye)*

Program Host:

- Center for Sight (3985 W 106th St, Carmel, IN 46032)

Key Information

- First 8 weeks is virtual learning and then students will transition to in person learning
- Certifications Offered
 - ABO (American Board of Opticianry)
 - COA (Certified Ophthalmic Assistant)

PRINCIPLES OF HEALTHCARE: SURGICAL TECH TPI (7168)

Classification: CTE

Open to: 11, 12

Credit: 1 RW Fall, 1 RW Spring

*****Students must provide their own transportation for field experiences.**

Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

HEALTHCARE FUNDAMENTALS: SURGICAL TECH TPI (5274)

Classification: CTE

Open to: 11, 12

Credit:1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

Healthcare Fundamentals prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including;appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

CENTRAL SERVICE TECHNICIAN FUNDAMENTALS: SURGICAL TECH TPI (7163)

Classification: CTE

Open to: 11,12

Credit:1 RW Fall, 1 RW Spring

***Students must provide their own transportation for field experiences.

This course introduces students to the field of central service and prepares students to identify surgical instruments by category type and use. Students will learn the principles and importance of the flow of material along with the environmental control factors affecting the central service department. The student will differentiate between equipment management systems and compare out-sourcing and insourcing.

CENTRAL SERVICE TECHNICIAN CAPSTONE: SURGICAL TECH TPI (7257)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 FW Spring

***Students must provide their own transportation for field experiences.

Central Service Technician Capstone course emphasizes the practice of sterilization skills that have been learned in previous courses. Students will focus on high and low sterilization methods. Students will differentiate between the various sterilization methods. Students will learn the protocol for control infection and the spread of blood borne pathogens. Additionally this course will provide students the opportunity to complete practical hours toward the hours required to complete the International Association of Healthcare Central Services Material Management Certification Exam.

COSMETOLOGY CAREER PATHWAY

Program Host:

- Freestyle Academy of Hair

Key Information:

- In person Monday - Friday

- Certifications Offered
 - Cosmetology License (Indiana)
- Freestyle Academy of Hair offers dual credit with Vincennes University. Students enrolled in the cosmetology program at Freestyle will have the opportunity to earn a total of 28 college credits
- Fees for this class are for Cosmetology Kits that students will keep following their program, and have been as much as \$800.

PRINCIPLES OF BARBERING & COSMETOLOGY (7175)

Classification: CTE

Open to: 11,12

Credit: 1 RW Fall, 1 RW Spring, Dual Credit with Vincennes University

***Students must provide their own transportation for field experiences.

Principles of Barbering and Cosmetology offers an introduction to cosmetology with emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, and bacteriology and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours.

BARBERING & COSMETOLOGY FUNDAMENTALS (7331)

Classification: CTE

Open to: 11,12

Credit: 1 RW Fall, 1 RW Spring, Dual Credit with Vincennes University

***Students must provide their own transportation for field experiences.

Barbering and Cosmetology Fundamentals focuses on the development of practical skills introduced in Principles of Barbering and Cosmetology. Clinical application and theory in the science of barbering and cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours.

ADVANCED COSMETOLOGY (7332)

Classification: CTE

Open to: 11,12

Credit: 1 RW Fall, 1 RW Spring, Dual Credit with Vincennes University

***Students must provide their own transportation for field experiences.

Advanced Cosmetology will emphasize the development of advanced skills in styling, hair coloring, permanent waving, facials, manicuring, chemical texturizing, and hair cutting techniques. Students will also further study anatomy and physiology as it applies to hair care professions. Successful completion of the course requires at least 375 studio hours.

BARBERING & COSMETOLOGY CAPSTONE (7334)

Classification: CTE

Open to: 12

Credit: 3 FW Fall, 3 FW Spring, Dual Credit with Vincennes University

***Students must provide their own transportation for field experiences.

Barbering and Cosmetology Capstone builds and improves previously developed skills with emphasis on developing individual techniques. Professionalism, shop management, psychology in relation to barbering and cosmetology, and preparation for the state board examinations are the focus. Successful completion of the course requires at least 375 studio hours.

Career Pathways Overview

Students are able to individualize their graduation requirements to align with their postsecondary goals. Students have the option to meet their post-secondary-ready competencies requirement by completing a pathway. Students must complete the Principles, Concentrator A, and Concentrator B courses with an average of least a C-. *The Capstone is an optional additional experience, but not required to meet the graduation requirement.

Art (Locally Created Pathway) * See Art Department courses for full descriptions

Select 1 full yr course.	Select 2 one semester courses	Select 2 one semester courses	Select 2 semesters or 1 full yr. Course
4562 Principles of Business Mgmt 7161 Principles of Teaching **ACP IU **Full Weight *(Can also take art classes concurrently with these principles courses)	4000 Into 2D Art 1 4060 Drawing 1 4062 Photo 1 or Digital 1	4044 Sculpture 4040 Ceramics 1 4042 Jewelry 1 4046 Fiber Arts 1	4060 Drawing 2-6 4062 Photo or Digital 2-4 4004 Adv. 2D Art 4040 Ceramics 2-4 4042 Jewelry 2-4 4046 Fiber Arts 2-4 4064 Painting 1-2 ----- 4050 AP 2D Art & Design 4052 AP 3D Art and Design 4048 AP Drawing 4025 AP Art History 4092 IB Visual Arts SL 4090 IB Visual Arts HL

Accounting

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone *	
4562	Principles of Business Management	4524	Accounting Fundamentals **Vincennes dual credit	4522	Advanced Accounting **Vincennes dual credit	7252	Accounting Capstone **Full Weight

Automotive Services

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7213	Principles of	7205	Automotive	7212	Automotive	7375	Automotive

	Automotive Services		Services A		Services B		Service Capstone **Full Weight
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Biomedical Science * See Science Department for course details

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
5218	Principles of Biomedical Sciences	5216	Human Body Systems	5217	Medical Interventions	5219	Biomedical Innovations

Business Administration

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
4562	Principles of Business Management	5914	Marketing Fundamentals **IvyTech dual credit	4524	Accounting Fundamentals **Vincennes dual credit	7256	Business Administration Capstone **Full Weight
		7143	Management Fundamentals **IvyTech dual credit				

Certified Nursing Aid

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7168	Principles of Healthcare **IvyTech dual credit	5274	Healthcare Fundamentals (formerly Medical Terminology) **IvyTech dual credit	7166	Healthcare Specialist: CNA **IvyTech dual credit	7255	Healthcare Capstone **Full Weight

*For this career pathway, Principles, Concentrator A & B are all taught concurrently as the CNA course.

Computer Science

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7183	Principles of Computing, ACP or AP **Full Weight	7351	Cybersecurity - PLTW or AP Computer Science A	7351	Cybersecurity - PLTW or AP Computer Science A	7353	Computer Science Capstone **Full Weight
		7352		7352			

			**Full Weight		**Full Weight		
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Construction Trades

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7130	Principles of Construction Trades	7123	Construction Trades A	7122	Construction Trades B	7242	Construction Trades Capstone **Full Weight

Criminal Justice

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7193	Principles of Criminal Justice **IvyTech dual credit	7191	Criminal Justice A **IvyTech dual credit	7188	Criminal Justice B **IvyTech dual credit	7231	Criminal Justice Capstone **Full Weight

Culinary Arts

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7173	Principles of Culinary and Hospitality **IvyTech dual credit	7171	Culinary Arts A **IvyTech dual credit		Culinary Arts B **IvyTech dual credit	7233	Culinary Capstone **Full Weight

Cybersecurity

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7183	Principles of Computing, ACP or AP **Full Weight	7179	Cybersecurity Fundamentals AP Networking **Full Weight	7178	Advanced Cybersecurity AP Cybersecurity **Full Weight	7243	Cybersecurity Capstone **Full Weight

Digital Design (Art)

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7140	Principles of Digital Design	7141	Digital Design Graphics	7136	Professional Photography and Videography	7246	Digital Design Capstone **Full Weight

Early Childhood

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7160	Principles of Early Childhood Education **Ball State Dual Credit **Full Weight	7158	Early Childhood Education A **Ball State Dual Credit **Full Weight	7159	Early Childhood Education B **Ball State Dual Credit **Full Weight	7259	Early Childhood Education Capstone **Full Weight

Education Careers

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7161	Principles of Teaching **ACP IU **Full Weight	7157	Education Professions A **ACP IU **Full Weight	7162	Education Professions B **ACP IU **Full Weight	7267	Education Professions Capstone **Full Weight

Emergency Medical Services

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7168	Principles of Healthcare **IvyTech dual credit	5274	Healthcare Fundamentals (formerly Medical Terminology) **IvyTech dual credit	7165	Emergency Medical Tech **IvyTech dual credit	7255	Healthcare Capstone **Full Weight

*For this career pathway, Principles, Concentrator A & B are all taught concurrently as the EMT course.

Engineering

Principles		CTE Concentrator A		CTE Concentrator B	Pathway Capstone*	
4802	Introduction to Engineering and Design **IvyTech dual credit	5644	Principles of Engineering **IvyTech dual credit	5538 Digital Electronics** 5650 Civil Engineering** 5518 Aerospace Engineering **IvyTech dual credit	5698	Engineering Design and Development **Full Weight

Exercise Science

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7320	Principles of	7321	Kinesiology	7322	Human	7323	Physical Therapy

	Exercise Science				Performance		Or
						7324	Fitness Management Capstone **Full Weight

Fashion & Textiles

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7301	Principles of Fashion Textile	7302	Fashion & Textile A	7303	Fashion & Textiles B	7304	Fashion Textiles Capstone **Full Weight

Finance: Finance and Investment

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone *	
	Principles of Business Management	4524	Accounting Fundamentals **Vincennes dual credit	5258	Finance and Investment	7265	Finance and Investment Capstone **Full Weight

Social and Community Services

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7176	Principles of Human Services	7276	Fundamentals of Human Services	7278	Community Health Worker	7279	Social and Community Services Capstone

Interior Design and Fundamentals

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone *	
7132	Principles of Interior Design	7127	Interior Design Fundamentals	7128	Materials, Finishes & Design	7248	Interior Design Capstone **Full Weight

Marketing & Sales

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
4562	Principles of Business Management	5914	Marketing Fundamentals **IvyTech dual credit	7145	Digital Marketing	7201	Small Business Operations Capstone **Full Weight

Radio

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7139	7139 Principles of Broadcasting: Converged Media	7306	WHJE A	7307	WHJE B	7308	WHJE Capstone **Full Weight

Television

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7139	7139 Principles of Broadcasting: Converged Media	7306	CHTV A	7307	CHTV B	7308	CHTV Capstone **Full Weight

Band* See Performing Arts Department for course details

Select 1 full yr course	Select 1 full yr course	Select 1 full yr course*	Select 1 full yr course
4562 Principles of Business Mgmt 7161 Principles of Teaching F200-IU, ACP-2	4160 Beginning Concert Band 4168 Intermediate Concert Band 4170 Advance Concert Band	4160 Beginning Concert Band 4168 Intermediate Concert Band 4170 Advance Concert Band *May take more than one year of same concert band	4170 Advanced Concert Band 4210 AP Music Theory 4212 IB Music SL 4214 IB Music HL

Choral* See Performing Arts Department for course details

Select 1 full yr course	Select 1 full yr course	Select 1 full yr course*	Select 1 full yr course
4562 Principles of Business Mgmt 7161 Principles of Teaching F200-IU, ACP-2	4182 Beginning Choir 4186 Intermediate Choir 4188 Advanced Choir	182 Beginning Choir 4186 Intermediate Choir 4188 Advanced Choir *May take more than one year of same choir	4188 Advanced Choir 4210 AP Music Theory 4212 IB Music SL 4214 IB Music HL

Theater* See Performing Arts Department for course details

Select 1 full yr course	Select 1 full yr course	Select 1 full yr course*	Select 1 full yr course
4562 Principles of Business Mgmt 7161 Principles of Teaching F200-IU, ACP-2	4242 Theater Arts	4248 Theater Production	4240 Adv. Theater Arts 4252 Adv. Technical Theater 4250 Advanced Acting

LCP: Civic Arts- Media Across Platforms

Principles -Level 1	CTE Concentrator A-Level 1	CTE Concentrator B-Level I	Advanced Coursework Required for Pathway
7139 Principles of Broadcasting: Converged Media	1084 Digital Media: HiLite A OR 1084 Digital Media: Pinnacle A	1086 Student Media Project Management & Leadership : HiLite B OR 1086 Student Media Project Management & Leadership : Pinnacle B	1086 Student Media Project Management & Leadership : HiLite Capstone OR 1086 Student Media Project Management & Leadership : Pinnacle Capstone Additional Option Below: 5974 CTE Work-Based Learning Capstone Editorial Staff & Upper Management (HiLite or Pinnacle)
OR			
4562 Principles of Business Mgmt AND 1086 Student Media: Visual Journalism I-II OR 7181 Principles of Teaching AND 1086 Student Media: Visual Journalism I-II	1084 Digital Media: HiLite A OR 1084 Digital Media: Pinnacle A	1086 Student Media Project Management & Leadership : HiLite B OR 1086 Student Media Project Management & Leadership : Pinnacle B	1086 Student Media Project Management & Leadership : HiLite Capstone OR 1086 Student Media Project Management & Leadership : Pinnacle Capstone Additional Option Below: 5974 CTE Work-Based Learning Capstone Editorial Staff & Upper Management (HiLite or Pinnacle)



Aviation Management

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7214	Principles of Aviation Management **IvyTech dual credit	7217	Private Pilot Theory **IvyTech dual credit	7207	Aviation Operations and Safety **IvyTech dual credit	7385	Aviation Management Capstone **Full Weight

Certified Clinical Medical Assistant (CCMA)

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7168	Principles of Healthcare (CHS students have already completed this as CNA or EMT was a Prerequisite)	5274	Healthcare Fundamentals (CHS students have already completed this as CNA or EMT was a Prerequisite)	7164	Certified Clinical Medical Assistant (CCMA)	7255	Healthcare Specialist Capstone **Full Weight

Cosmetology and Barbering

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7330	Principles of Barbering & Cosmetology	7331	Barbering & Cosmetology Fundamentals	7332	Advanced Cosmelogy	7334	Barbering & Cosmetology Capstone

Dental Careers

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7315	Principles of Dental Careers	7316	Dental Careers Fundamentals	7317	Advanced Dental Careers	7318	Dental Careers Capstone **Full Weight

Pharmacy

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7137	Principles of Pharmacy Tech	5274	Healthcare Fundamentals	7167	Pharmacy Tech	7310	Pharmacy Capstone **Full Weight

Surgical Technician: Central Service Technician

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7168	Principles of Healthcare	5274	Healthcare Fundamentals	7163	Central Service Technician Fundamentals	7257	Central Service Technician Capstone

Veterinary Sciences

Principles		CTE Concentrator A		CTE Concentrator B		Pathway Capstone*	
7280	Principles of Veterinary Science	7281	Veterinary Science	5070	Advanced Life Science, Animals	7282	Veterinary Science Capstone **Full Weight

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