

ENGLISH ELECTIVES

DEBATE I

0349

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Supplemental Fee: \$20.00

COURSE DESCRIPTION: [IDOE 1070] In this course, speaking skills will be developed with specific emphasis on logical thinking, analysis, research, statistics, persuasion and argumentation. The course will cover the following types of public speaking: two-person debate, Lincoln-Douglas debate, extemporaneous and impromptu speaking, and Student Congress. Students may be given the opportunity to participate in interscholastic competition.

JOURNALISM

0333

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$5.00

COURSE DESCRIPTION: [IDOE 1080] In addition to encouraging students to develop civic literacy and an understanding of the power of today's media, this course will provide students with the theoretical and practical background in the field of journalism with an emphasis on training for eventual work on school productions. Students will realize the importance of accuracy, objectivity and conciseness in journalistic endeavors and will become media consumers. Students will practice extensively the techniques of newsgathering, interviewing, writing and copy editing. Students will also learn about effective design of publications, advertising, photography, and broadcasting.

RADIO & TELEVISION I

0369

(Formerly Mass Media/Tech Comm. I)

2 Semesters 2 Credits Grades 9-12

Prerequisite: None

Supplemental Fee: \$10.00

COURSE DESCRIPTION: [IDOE 5986] In this introductory class to mass media and journalism, students will develop media literacy through instruction and practice. Students will engage in all facets of production, and they will develop a portfolio of work that will include news-writing, broadcast production, multimedia stories, and storytelling in new and emerging media. Students will learn all aspects of production in the PNN television studio, and in the second semester, they will produce a daily news show for pnn.phmschools.org. This publications class lays the groundwork for further study in this field (and for Radio & Television II, 0371). More information can be found at massmediastudies.net.

ART ELECTIVES

INTRODUCTION TO TWO-DIMENSIONAL ART

0149

1 Semester 1 Credit Grades: 9-10-11-12

Studio Fee: \$ 20.00

COURSE DESCRIPTION: [IDOE 4000] Introduction to 2-Dimensional Art is a 1-semester course intended to provide students with the basic skills and techniques in drawing, painting, design and printmaking. The 2/D course will help students generate new ideas, develop artistic skills, and foster student imagination. Pencil, chalk, charcoal, colored pencil, marker, tempera, acrylics, oil pastels and scratchboard may be some of the materials students will explore. Our goal is one in which students gain an appreciation for the arts, and learn how the arts can be integrated into other areas of study.

INTRODUCTION TO THREE-DIMENSIONAL ART

0150

1 Semester 1 Credit Grades: 9-10-11-12

Prerequisite: Students who have already received credit for another three-dimensional course, e.g., ceramics or sculpture, will not be allowed to take Introduction to 3 Dimensional Art.

Studio Fee: \$20.00

COURSE DESCRIPTION: [IDOE 4002] Introduction to 3-Dimensional Art is the next phase of the introductory course intended to provide students with the basic skills and techniques in sculpture and ceramics. Clay, plaster, cardboard, textiles, and other 3-dimensional materials may be explored. Through these art experiences, young adult artists will find gratification in creating three-dimensional works of art. Our goal is one in which students gain an appreciation for the arts, and learn how the arts can be integrated into other areas of study.

CERAMICS I & II

0109/0110 (3014)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: None

Studio Fee: \$40.00

COURSE DESCRIPTION: [IDOE 4040] This is a 2-semester course where you will learn to make your childhood mud pies into a creative and useful artwork. Your artwork will not only be a decorative piece of art, but you will be able to use it in your daily life or give it to someone as a gift of love. Students will explore coil, slab, pinch, drape and sculpture techniques to construct animal sculptures, bowls, boxes, masks, teapots, tiles and vessels that have a strong sense of color and texture designs.

DRAWING I & II

0117/0118 (3018)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: Intro to 2-D or 3-D Art is recommended, but not required

Studio Fee: \$35.00

COURSE DESCRIPTION: [IDOE 4060] This course is an introduction to the basic skills and techniques of drawing and composition. Emphasis will be placed on the elements of structure: line, shape, form, space, value, texture, and color as well as principles of arrangement. Students will explore various media such as pencil, charcoal, pastels, pen and ink, watercolor, marker, and printmaking techniques. Assignments may include: still life drawing, portraiture, perspective drawing, figure drawing, printmaking, scratchboard, graphic and abstract design. Students will be required to keep a sketchbook.

DESIGN FUNDAMENTALS

0183/0184 (3072)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: A passion for drawing is required. Previous art classes *strongly* recommended

Fee: \$40.00

COURSE DESCRIPTION: [IDOE: 4834] This class is to prepare students for the Entertainment Design and/or Graphic Design course trees offered here at Penn, covering the core the fundamentals in both. Each course tree will have its own semester's focus. This class, while introductory, is designed to be challenging and preparatory for vocational/college-bound students. Note-taking, problem-solving, time management, and critical thinking skills will be put to use.

Entertainment Design semester. Students will learn the core fundamentals used by artists to create from the imagination alone. This includes 2-point perspective, form building, and lighting volume. The majority of the semester will be traditional (on paper) and ending using Adobe Photoshop for digital painting.

Graphic Design semester. Students will work traditionally (on paper), learning how to visually communicate with type, form language, silhouette and visual pun. Students will also learn the process designers use to solve design problems, how composition works, and basic color theory.

MEDIA ARTS /

PHOTOGRAPHY I & II

0141/0142 (3030)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: Intro to 2-D or 3-D Art recommended. **Student must have access to a 35mm SLR manual camera.**

Studio Fee: \$35.00

Additional costs: student-purchased supplies outside of school

COURSE DESCRIPTION: [IDOE 4062] Students will explore the basic principles of black and white 35 mm photography. Shutter speed, aperture, depth of field, ASA/ISO film speed, lighting, processing and developing techniques will be taught. Emphasis will be placed on lighting, composition, subject matter, and dark room techniques. Other methods for making visual images will be explored such as pinhole photography, photograms, hand coloring, and toning. Students will gain familiarity with the history of photography.

PAINTING I & II

0101/0102 (3010)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: Intro to 2-D or 3-D Art recommended.

Studio Fee: \$30.00

COURSE DESCRIPTION: [IDOE 4064] This course is an introduction to the basic principles of painting. Students will have an opportunity to explore various techniques associated with watercolor, tempera, acrylics, and oil paints. Connections will be made between historically significant painters and periods of art. First year painting students will learn to merge the brush stroke with their imagination.

SCULPTURE I & II

0125/0126 (3022)

2 Semesters 2 Credits Grades: 9-10-11-12

Prerequisite: None

Studio Fee: \$35.00

COURSE DESCRIPTION: [IDOE 4044] This course introduces the basic principles and techniques of sculpture using a variety of materials. Assignments will include sculptural techniques and methods of additive, subtractive, and constructive processes using such materials as clay, cardboard, paper, foamboard, wire, plaster, found objects, paper mache', etc.

BAND

INTERMEDIATE CONCERT BAND

0817

(Freshman Concert Band)

2 Semesters 2 Credits Grade: 9

Prerequisite: Currently enrolled in a band class or by permission of the instructor

Fee: \$45.00

COURSE DESCRIPTION: [IDOE 4168] This developmental course is open to all freshmen students who play a band instrument at an intermediate level. Emphasis is placed on tone, technique development and sight reading. Participation in the ISSMA Solo/Ensemble contest is encouraged. Interested students may audition (in January) for the marching band. The band performs several times during the year.

PERCUSSION STUDIES*0823****2 Semesters 2 Credits Grades: 9-12****Prerequisite:** Successful completion of three years in Middle School band as a percussionist or currently enrolled in Percussion Studies**Fee:** \$45.00

COURSE DESCRIPTION: [IDOE 4162] The percussion studies class is comprised of students who have completed three years of middle school band as a percussionist or have successfully completed previous years of percussion studies. Students meet as a separate class to learn percussion techniques and reading skills for a wide variety of percussion instruments and literature. All students will perform with one of three concert bands (817, 819 or 839) for all concerts and contests. There will be 4-5 required performances throughout the year.

ADVANCED PERCUSSION STUDIES*0825****2 Semesters 2 Credits Grades: 9-12****Prerequisite:** Audition or by permission of the instructor**Fee:** \$45.00***This course is weighted on a 4.5 scale.***

COURSE DESCRIPTION: [IDOE 4162] The advanced percussion studies class is comprised of students who have completed three years of middle school band as a percussionist or have successfully completed previous years of percussion studies. Students meet as a separate class to learn percussion techniques and reading skills for a wide variety of percussion instruments and advanced literature. All students will perform with one of two concert bands (839 or 841) for all concerts and contests. There will be several required performances throughout the year. Private lessons are required.

INTERMEDIATE JAZZ ENSEMBLE*0827****2 Semesters 2 Credits Grades: 9-12****Prerequisites:** Must be enrolled in Symphonic or Concert Band and permission of instructor**Fee:** \$20.00

COURSE DESCRIPTION: [IDOE 4164] This course is open to students also enrolled in an Intermediate or Advanced Concert Band. Pianists, guitarists, and bassists may audition into the ensemble without participation in a concert band. Emphasis is placed on tone and technique development and sight-reading skills. Jazz theory and improvisation are included in the course of study. The group performs several times each year.

****Attendance at concert performances is required.*****ORCHESTRA*****STRING ORCHESTRA****0831****2 Semesters 2 Credits Grades: 9-11****Prerequisite:** Must be currently enrolled in an orchestra class or by permission of the instructor**Fee:** \$45.00 (includes a 12 month subscription to SmartMusic software)

COURSE DESCRIPTION: [IDOE 4172] String Orchestra is for Penn students who play a string instrument at an intermediate level. Emphasis is placed on tone, technique development and sight-reading. Participation in ISSMA Solo/Ensemble contest is highly encouraged. This orchestra performs several times during the year. Music is selected from classical, popular, folk, and new string literature. Private lessons are highly encouraged.

CONCERT ORCHESTRA*0847****2 Semesters 2 Credits Grades: 9-12****Prerequisite:** Audition or by permission of the instructor**Fee:** \$45.00 (includes a 12 month subscription to SmartMusic software)

COURSE DESCRIPTION: [IDOE 4172] Concert Orchestra is for Penn students who play a string instrument at an intermediate proficiency or better. Emphasis is placed on tone, technique development and sight-reading. Participation in ISSMA Solo/Ensemble contest is highly encouraged. This orchestra performs several times during the year. Music is selected from classical, popular, folk, and new string literature. Private lessons are highly encouraged.

***SYMPHONIC ORCHESTRA**

0833

2 Semesters 2 Credits Grades: 9-12

Prerequisite: Audition or by permission of the instructor

Fee: \$45.00 (includes a 12 month subscription to SmartMusic software)

This course is weighted on a 4.5 scale.

COURSE DESCRIPTION: [IDOE 4174] This advanced orchestra class is available by audition to Penn students who play a string instrument at an upper intermediate to advanced level. The Symphonic Orchestra represents Penn High School in public performances and competitions. Emphasis is placed on tone, technique development and sight-reading. Advanced performance techniques are emphasized. Participation in ISSMA Solo/Ensemble contest is encouraged. Serious string and full orchestra literature is selected from a variety of periods in music history. Private lessons are highly encouraged.

INSTRUMENTAL CHAMBER MUSIC

0849

2 Semesters 2 Credits Grades: 9-12

Prerequisite: Must be also enrolled in an appropriate band or orchestra class

Fee: \$20.00

COURSE DESCRIPTION: [IDOE 4162] This course is designed to offer advanced instrumental performers an opportunity to study and perform chamber music literature. String Quartet, wind/string combinations, and other chamber literature will be studied, arranged, rehearsed, and performed. These groups could perform many times per year at various places in the community.

***Attendance at concert performances is required.**

CHORAL MUSIC

***BEGINNING CHORUS**

0801

(Singing Kingsmen)

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$30.00

COURSE DESCRIPTION: [IDOE 4182] This boy's course is designed to introduce and develop basic singing techniques, sight-reading skills and basic music theory concepts. Activities in this class create the development of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Students must participate in performance opportunities outside of the school day that support and extend learning in the classroom. No audition is required.

***BEGINNING CHORUS**

0803

(Bel Canto Chorus)

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$30.00

COURSE DESCRIPTION: [IDOE 4182] This course is designed to introduce and develop basic singing techniques, sight-reading skills and basic music theory concepts. Activities in this class create the development

of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Students must participate in performance opportunities outside of the school day that support and extend learning in the classroom. No audition is required.

DANCE

****DANCE PERFORMANCE I & II***

(Beginning Level)

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$5.00

Additional Cost: Student must supply own dance apparel and shoes, approximately \$80.00

COURSE DESCRIPTION: [IDOE 4146] This course is designed to introduce and develop understanding of dance concepts and terminology, and to develop beginning skills in ballet, jazz, modern and tap dance technique. Beginning choreographic elements and principles will be introduced. Student will participate in a performance as a culminating activity at the end of the course.

0835/0836

(3044)

THEATRE

THEATRE ARTS I & II

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$25.00

COURSE DESCRIPTION: [IDOE 4242] This course is for students who want an introduction to theatre through acting and performance. Areas of study will include voice and diction, observation, pantomime, improvisation and character development. Student activities will include daily theatre games, vocal and physical warm-ups. Students will learn to create characters through the use of movement, gestures, facial expression, and language in improvised and scripted activities. Some study of early theatre history and Shakespeare will provide students with a historical and cultural context. Performance evaluations will be required in class. Written evaluation of a live performance will be required. Field trip expenses may vary. Required audition, rehearsals, or performances may be held outside of the school day.

0343/0344 (3041)

TECHNICAL THEATRE I & II

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$25.00

COURSE DESCRIPTION: [IDOE 4244] This course is for students who want to learn about the many technical aspects of play production. Instruction will combine technical theatre theories of design, construction, operation, and safety. Students will have opportunities to develop skills with scenery, lighting, sound, properties, costumes, and make-up. Study will include script analysis and the evaluation of live theatre. Career opportunities in technical theatre arts will be explored. In addition to class time, students will be required to participate in some out of class projects. Field trip expenses vary.

0347/0348 (3043)

PE

PHYSICAL EDUCATION I & II

0501/0502 (3000)

2 Semesters (Required) 2 Credits Grade: 9

Prerequisite: None

Fee: \$30.00

Required attire: Gold shirt & Black shorts

COURSE DESCRIPTION: [IDOE 3542] Secondary Physical Education I & II are based on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This course includes the five components of physical fitness. Activities such as aerobic activity, aquatics, team sports, recreational sports, individual and dual sports will be used to create an interest in developing and maintaining physical fitness. Students will evaluate their own fitness level through a fitness assessment fall and winter. Students will complete nutrition, fitness and wellness through interactive physical education in a blended learning environment. Vital knowledge will be conveyed through this learning to stay fit, healthy and happy while creating extended opportunities in class for participation.

SOCIAL SCIENCES

CIVICS (CITIZENSHIP)

1151 or 1152

1 Semester 1 Credit Grades: 9-12

Supplementary Fee: \$2.50

COURSE DESCRIPTION: [IDOE 1508] Civics/ Citizenship is an overview of citizenship roles and responsibilities designed to help students become independent thinkers and conscientious citizens. This course deals with political trends and behavior which citizens consider relevant to the most pressing issues of the day. The course provides students experiences that will develop attitudes of citizenship within a democratic society. Topics include: (1) the policymaking process; (2) public participation in policymaking; (3) citizenship rights and responsibilities in a changing society; and (4) the relationship between modern society and government. In-depth study of government at the local level is a large component of this course.

FAMILY & CONSUMER SCIENCES

INTERPERSONAL RELATIONSHIPS

(IPR)

1001 or 1024

1 Semester 1 Credit Grades: 9-12

Prerequisite: None

Fee: \$3.00

COURSE DESCRIPTION: [IDOE 5364] This is an introductory course that is especially relevant for students interested in careers that involve interacting and working with people. It is also valuable for all students, as it provides everyday life and communication skills. Topics covered include personality, positive character traits, heredity and your environment. Students will gain skills and knowledge as it pertains to building positive and productive relationships in various aspects of life, such as career, community and various relationships. Other main topics include positive communication skills, conflict prevention and resolution, as well as digital responsibility.

CHILD DEVELOPMENT (Sem. 1)

1023/1026 (3088)

ADVANCED CHILD

DEVELOPMENT (Sem. 2)

2 Semesters 2 Credits Grades: 9-12

Fee: \$9.00

COURSE DESCRIPTION: [IDOE 5362 & 5360] This course is designed to explore the stages of a child's development from conception through childhood. It includes a study of the responsibilities and decisions involved in effective parenting. Emphasis is given to the physical, emotional, intellectual and social growth of the child. Student directed learning opportunities include a toddler/parent experience (1 - 3 year olds) and play school program (3 - 4 year olds).

INTRODUCTION TO FASHION & TEXTILES

(Sewing I)

1025

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Textbook Rental: Class set \$0

Fee: \$14.00

Additional Cost: Students provide their own fabric and supplies for projects.

COURSE DESCRIPTION: [IDOE 5380] This course has a project-based approach that integrates instruction and laboratory experiences including application of selection, production, alteration, repair, and maintenance of apparel and textile products. Emphasis on helping the student interpret and follow instructions from commercial patterns to wearable and non-wearable projects is also included. This course is hands on sewing and it will be necessary for the student to complete a minimum of four projects with supplies purchased by the student.

NUTRITION AND WELLNESS (Sem. 1) ADVANCED NUTRITION AND WELLNESS (Sem. 2)

(FOODS)

1007/1008 (3087)

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Fee: \$25.00

COURSE DESCRIPTION: [IDOE 5342 & 5340] Nutrition and Wellness enables students to learn the basics of working in the kitchen, with a focus on safety and sanitation, proper equipment use and following a recipe. It empowers them to apply these skills in their everyday lives. This course uses a lab setting for practical application of food preparation. Units of study include yeast breads, fruits, meats, poultry, cakes, cookies, candies, vegetables, pastries, cheese, rice and pasta. Other units include regional foods, eggs, quick breads, soups, and food preservation.

BUSINESS MANAGEMENT

CINS/IVY TECH DUAL CREDIT

0269/0270

(Formerly known as Digital Applications & Responsibilities)

1 Semester 1 Credit Grades: 9-12

Prerequisites: None

Fees: \$3.00

This course is weighted on a 4.5 scale Ivy Tech Dual Credit

COURSE DESCRIPTION: [IDOE 4564] Do you need to brush up on your computer skills? Would you like to be proficient in Microsoft Office? Look no further, you can take CINS here at Penn and learn those skills, which will make you a more competitive person in the job market! Students will use Microsoft Word, Excel, and Access software to create and produce letters, tables, reports, graphics applications, spreadsheets, and database projects. Students will also create projects using PowerPoint. Along with the skills acquired in this course, students will complete a professionalism unit that can be incorporated and utilized throughout a student's high school, college, and professional experience. Not open to students who have taken 2327. Dual credit is available with qualifying scores.

WEB DESIGN

0205 or 0206

1 Semester 1 Credit Grades: 9-12

Prerequisite: None

Fee: \$10.00

COURSE DESCRIPTION: [IDOE 4574] Web Design is a one -semester course that provides instruction in the principles of web design using current/emerging software programs such as Dreamweaver. Areas of instruction include audience analysis, design techniques, and software integration. Photoshop and Animate will be used to create and edit images and to create animations to enhance the web pages.

INTRODUCTION TO BUSINESS

0235 or 0236

1 Semester 1 Credit Grades: 9-10

Prerequisite: None

Textbook: None Fee: \$5.00

COURSE DESCRIPTION: [IDOE 4518] A great introductory course for any students interested in business. This course will briefly cover economics, entrepreneurship, management, marketing, law, risk management, banking, personal finance, and careers in business. The importance and application of business etiquette and ethics are included. Introduction to Business will include– problem-based projects and group work.

INTRODUCTION TO COMPUTER SCIENCE (PLTW)

0203/204

1 Semester 1 Credits Grade: 9-10

Prerequisite: None

Fee: \$3.00

This course is weighted on a 4.5 scale.

COURSE DESCRIPTION: [IDOE 4803]

Introduction to Computer Science allows students to explore the world of computer science. Students will gain a broad understanding of the areas composing computer science. Designed to be the first computer science course for students who have never programmed before, Introduction to Computer Science is a good starting point of the Computer Science Pathway. Students work in teams to create apps for mobile devices using MIT App Inventor®. They explore the impact of computing in society and build skills in digital citizenship and cyber-security. Beyond learning the fundamentals of programming, students build computational-thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis. In addition, students transfer the understanding of programming gained in App Inventor to text-based programming in Python® and apply their knowledge to create algorithms for games of chance and strategy. Counts as a Directed Elective or Elective for all diplomas.

COMPUTER SCIENCE I

0217

(Formerly Computer Programming I)

2 Semesters 2 Credits Grades: 9-12 (9th grade with permission from instructor)

Prerequisite: Completion of, or present enrollment in, Algebra I with a "C" average or above

Textbook: None

Fee: \$3.00

COURSE DESCRIPTION: [IDOE 4801] This course is designed for students with no previous programming experience, who are good problem solvers, who have acquired basic Windows skills and are interested in computer science or related career fields. This course will help students learn how to plan, create and debug their own interactive Windows applications and games using the programming language, Visual Basic 2012.

MATH

PRE-CALCULUS, HONORS

0733 (3076)

Use 3076 to register for both Pre-Calc and Trig, Honors

1 Semester 1 Credit Grades: 9-12

Prerequisite: Algebra II Honors and Geometry

Fee: \$1.50

COURSE DESCRIPTION: [IDOE 2564] Pre-Calculus is an Honors course that extends the foundation of algebra and functions developed in previous courses to new functions and to a more advanced level. Pre-Calculus is made up of the following strands: Complex Numbers, Functions, Quadratic, Polynomial and Rational Equations and Functions, Exponential and Logarithmic Equations and Functions. This course is designed to provide students with a strong foundation for Calculus. This course is preparing the students for AP Calculus AB and for students who expect math to be a major component of their college courses. A scientific calculator is required and a graphing calculator is highly recommended.

TRIGONOMETRY, HONORS

0738 (3076)

Use 3076 to register for both Pre-Calc and Trig, Honors

1 Semester 1 Credit Grade: 9-12

Prerequisite: Algebra II Honors and Geometry

Fee: \$1.50

COURSE DESCRIPTION: [IDOE 2566] Trigonometry is an Honors course that provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry consists of: Conics, Unit Circle, Periodic Functions, Identities, Polar Coordinates and Vectors. Trigonometry provides the foundation for common periodic functions that are encountered nearly all STEM disciplines. This course is preparing the students for AP Calculus AB.

SCIENCE

PLTW PRINCIPLES OF BIOMEDICAL SCIENCES (PBS)

0909

2 Semesters 2 Credits Grades: 9-12

Fee: \$15.00

This course is weighted on a 4.5 scale.

COURSE DESCRIPTION: [IDOE 5218] Principles of the Biomedical Sciences is a hands-on project based Project Lead the Way (PLTW) course. Students investigate various health conditions including heart disease, diabetes, sickle-cell disease, hyper-cholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, and research processes. This course provides an overview of all the courses in the Biomedical Sciences program and lays the scientific foundation for subsequent courses. This course is designed for 9th - 12th grade students. College credit is offered through IUPUI for students that earn an EOC score of a 6 and above and a satisfactory grade in the course. The credit is accepted as a 100 level science elective. IUPUI offers letters of completion to students attending other colleges.- Currently there is no fee for credits associated with PLTW for students enrolled at IUPUI. This course fulfills a science requirement for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors.

AGRICULTURE

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

0644

2 Semesters 2 Credits Grades 9-12

Fee: \$5.00

Quantitative Reasoning Course

COURSE DESCRIPTION: [IDOE 5056] (INT AGFNR) Introduction to Agriculture, Food and Natural Resources is a prerequisite to and a foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics to be covered include: animal science, plant and soil science, food science, horticultural science, agricultural business management, landscape management, natural resources, agriculture power, structure and technology, leadership development, supervised agricultural experience and career opportunities in the area of agriculture, food and natural resources.

Counts as an elective Course for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.

ENGINEERING & TECHNOLOGY

ENGINEERING PATHWAY:

PLTW INTRODUCTION TO ENGINEERING DESIGN (IED)

0605

2 Semesters 2 Credits Grades: 9-12

Prerequisite: Algebra I

Fee: \$30.00

This course is weighted on a 4.5 scale.

COURSE DESCRIPTION: [IDOE 4812] (IED) Introduction to Engineering and Design is an introductory course, which develops student problem solving skills with emphasis on the development of three-dimensional (3-D) solid models. Students will work both individually and in teams to design solutions to a variety of problems using 3D modeling software. Students use the design process, applying math, science, and engineering standards to hands-on projects. Models of product solutions are created, analyzed and communicated using Autodesk Inventor. This course also works in a variety of project based learning activities such as The Whirlpool Innovation Challenge, Canstruction, and The Hand of Grace.

PLTW INTRODUCTION TO ENGINEERING DESIGN (IED)

All Girls

0606

2 Semesters 2 Credits Grades: 9-12

Prerequisite: Algebra I

Fee: \$30.00

This course is weighted on a 4.5 scale.

COURSE DESCRIPTION: [IDOE 4812] (IED) Introduction to Engineering and Design is an introductory course, which develops student problem solving skills with emphasis on the development of three-dimensional (3-D) solid models. Students will work both individually and in teams to design solutions to a variety of problems using 3D modeling software. Students use the design process, applying math, science, and engineering standards to hands-on projects. Models of product solutions are created, analyzed and communicated using Autodesk Inventor. This course also works in a variety of project based learning activities such as The Whirlpool Innovation Challenge, Canstruction, and The Hand of Grace.

ROBOTICS PATHWAY:

FIRST TECH CHALLENGE IED – FTC9

0602 (0614 – 0 Hour)

2 Semesters 2 Credits Grade: 9

Fee: \$40.00

COURSE DESCRIPTION: [IDOE 4802] Students can choose to take this course as a 0 hour class or a normal class. 0 hour class will meet outside the school day. FTC is designed for students to work together solving an engineering problem. Teams of students are responsible for designing, building, and programming their competition robots. Competitions are held throughout Indiana and the nation. Students will learn and use the design process to guide their work in class. Families will be expected to attend informational meetings in the evenings. Many skills and processes are learned in FTC to build the individual towards an effective team member for the Robotics Classes (FRC 11th and 12th grade years). Students get to:

- Design, build, and program robots
- Apply real-world math and science concepts
- Develop strategic problem solving, organizational, and team building skills
- Compete and cooperate in Alliances at tournaments
- Earn a place in the World Championships
- Qualify for scholarships at over 100 colleges/universities

***There will be evening and weekend commitments to participating in this class. Students will ride a school bus and stay overnight at certain competitions.**

ARCHITECTURE PATHWAY:

ARCHITECTURAL DESIGN I

0604

2 Semesters 2 Credits Grades 9-12

Fee: \$20.00

COURSE DESCRIPTION: [IDOE 5640] Architectural Drafting and Design I gives students a basic understanding of the detailing skills commonly used by architectural technicians. Areas of study include: sketching, proper use of equipment, geometric constructions, and general residential design. This course includes the creation and interpretation of construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. They will be expected to complete several projects relating to command topics. Topics include: 2D drawing commands, coordinate systems, editing commands, paper and model space, inquiry commands, layers, plotting, text, and basic dimensioning.

TECHNOLOGY PATHWAY:

INTRO TO DESIGN PROCESSES

0601

2 Semesters 2 Credits Grades: 9-12

Fee: \$20.00

COURSE DESCRIPTION: [IDOE 4794] Introduction to Design Processes is a course that specializes in modern design and engineering processes with a focus on creative problem solving in developing, testing, communicating, and presenting post-evaluation of products. Students use the design process to analyze research, develop ideas, and produce products solutions. This process gives a framework through which they design, manufacture, test and present their ideas. Students will demonstrate and utilize design principles and elements for visual presentations. Designing aspects will also cover aesthetics, ergonomics, the environment, safety, and production. The design process is a core-learning tool for many courses enabling the student to solve problems in a systematic, logical and creative manner. Students develop a good understanding of the

way the process helps them think creatively and developing aesthetic ideas. The design process encourages the students to engage in higher level thinking to create solutions for many types of problems.

COMPUTER TECH SUPPORT

0615

2 Semesters 2 Credits Grades: 9-12

Fee: \$15.00

COURSE DESCRIPTION: [IDOE 5230] Computer Tech Support - A course that focuses on hands-on applications of computer and network fundamentals. Students will work toward CompTIA A+ Certification through lectures, assignments, and hands-on labs. Topics covered include: Basic PC Hardware, System Boards, I/O Systems, Mass Storage Systems, Data Communications, Printers, Portable Systems, Operating System Fundamentals, Windows XP, Windows 7, Windows 8, Windows 10, Basic Hardware and Software Troubleshooting, and Preventive Maintenance. Students will perform hardware, software, and network installations; operating system, software, and memory upgrades; system and network configuration; and computer troubleshooting and repairs. A major emphasis will be placed on developing employable skills such as; communication, time management, accountability, and ethics. Students are counseled and encouraged to become A+ Certified and to seek employment or post high school training in areas related to computers and/or computer repair. Students may use this course to meet one of the requirements for the Academic Honors Diploma if they fulfill the following: *Students completing the course with a grade of "B" or higher and completing the requirements for A+ certification will earn free college credit from Ivy Tech Community College.* Any student earning dual credit may apply those credits to the academic honors diploma. This course also qualifies for the Technical Honors Diploma.

MANUFACTURING PATHWAY:

PRECISION MACHINING I

0625

2 Semesters 2 Credits Grades: 9-12

Fee: \$25.00

Quantitative Reasoning Course

COURSE DESCRIPTION: [IDOE 5782] Precision Machining I is designed to provide students with a basic understanding of the precision machining processes used in industry, manufacturing, maintenance, and repair. The course instructs students in industrial safety, terminology, tools and machine tools, measurement and layout. Students will become familiar with the setup and operation of power saws, drill presses, lathes, milling machines, grinders, welding and an introduction to CNC (computer controlled) machines.

CONSTRUCTION PATHWAY:

INTRODUCTION TO CONSTRUCTION

0629

2 Semesters 2 Credits Grades: 9-12

Fee: \$30.00

Additional: *There may be additional costs for elective projects.

COURSE DESCRIPTION: [IDOE 4792] Introduction to Construction is an entry-level course that emphasizes the use of tools, materials, and techniques used in the construction industry. Students will learn how to safely operate various hand and power tools. Joinery and assembly methods will also be studied. Students will use these methods to produce a wide variety of projects.

WORLD LANGUAGES

FRENCH I

0401

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Textbook Rental: \$25.66

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2020] Level I French provides instruction enabling students to discuss the many reasons for learning languages and to develop an understanding of the people who speak them. Students are able to apply effective strategies for language learning and show a willingness to experience various aspects of the cultures. Within this context, the course provides students with opportunities to:

- respond to and give oral directions and commands and to make routine requests in the classroom and in public places
- understand and use appropriate forms of address in courtesy expressions and be able to tell about daily routines and events
- ask and answer simple questions and participate in brief guided conversations related to their needs and interests
- read isolated words and phrases in a situational context, such as menus, signs, and schedules
- comprehend brief written directions and information
- read short narrative texts on simple topics and
- write familiar words and phrases in appropriate contexts and respond in writing to various stimuli

Additionally, students learn:

- about nonverbal communication, such as gestures and body language
- about awareness of current events in the cultures
- the major holidays and geographical features of the countries being studied
- greeting and leave taking behaviors in a variety of social situations
- the appropriate way to respond to introductions and use courtesy behaviors and

appropriate etiquette in a variety of social settings

GERMAN I

0409

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

vText +Supersite access: \$34.40

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2040] Level I German provides instruction enabling students to discuss the many reasons for learning languages and to develop an understanding of the people who speak them. Students are able to apply effective strategies for language learning and show a willingness to experience various aspects of the cultures. Within this context, the course provides students with opportunities to:

- respond to and give oral directions and commands and to make routine requests in the classroom and in public places
- understand and use appropriate forms of address in courtesy expressions and be able to tell about daily routines and events
- ask and answer simple questions and participate in brief guided conversations related to their needs and interests
- read isolated words and phrases in a situational context, such as menus, signs, and schedules
- comprehend brief written directions and information
- read short narrative texts on simple topics and
- write familiar words and phrases in appropriate contexts and respond in writing to various stimuli

Additionally, students learn:

- about nonverbal communication, such as gestures and body language
- about awareness of current events in the cultures
- the major holidays and geographical features of the countries being studied
- greeting and leave taking behaviors in a variety of social situations

- the appropriate way to respond to introductions and use courtesy behaviors and
- appropriate etiquette in a variety of social settings

JAPANESE I

0425

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Textbook Rental: \$18.19

Fee: \$5.00

Workbook Purchase: 29.99

COURSE DESCRIPTION: [IDOE 2060] Level I Japanese provides instruction enabling students to discuss the many reasons for learning languages and to develop an understanding of the people who speak them. Students are able to apply effective strategies for language learning and show a willingness to experience various aspects of the cultures. Within this context, the course provides students with opportunities to:

- respond to and give oral directions and commands and to make routine requests in the classroom and in public places
- understand and use appropriate forms of address in courtesy expressions and be able to tell about daily routines and events
- ask and answer simple questions and participate in brief guided conversations related to their needs and interests
- read isolated words and phrases in a situational context
- comprehend brief written directions and information
- read short narrative texts on simple topics and
- write familiar words and phrases in appropriate contexts and respond in writing to various stimuli

Additionally, students learn:

- about nonverbal communication, such as gestures and body language
- about awareness of current events in the cultures
- the major holidays and geographical features of the country being studied
- greeting and leave taking behaviors in a variety of social situations
- the appropriate way to respond to introductions and use courtesy behaviors and appropriate etiquette in a variety of social settings

SPANISH I

0417

2 Semesters 2 Credits Grades: 9-12

Prerequisite: None

Textbook Rental: \$17.86

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2120] Level 1 Spanish introduces students to the Spanish language by practicing reading, writing, listening, and speaking skills on a daily basis. The goal of level 1 is to establish a solid foundation in the Spanish language. Students will learn strategies to become effective language learners. Within this context, the course provides students with opportunities to:

- comprehend new language through dialogues, clip art, rhymes, visuals, and video
- practice communication through use of technology
- answer questions and express personal opinions both verbally and in writing
- compare languages and cultures through grammar study, pronunciation, art, and readings in authentic settings
- demonstrate all language skills through a variety of tasks and projects presented in the classroom

SPANISH I ACCELERATED

0445

2 Semesters 2 Credits Grade: 9

Textbook Rental: \$17.86

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2120] Spanish I Accelerated is designed to prepare highly capable, motivated students for future AP study and examination. This course is the first in a series of accelerated

courses. Through a compacted curriculum, students will learn more vocabulary and more grammatical structures than is typically possible in a regular level I language class. Students need to have an adeptness for applying effective language learning strategies, as demonstrated on a language aptitude test administered prior to enrollment and show a willingness to experience various aspects of the cultures. Students will move quickly through the basic language acquisition skills of listening, speaking, reading, and writing. Within this context, Spanish I Accelerated provides students with opportunities to:

- comprehend new language through dialogues, clip art, rhymes, visuals, and video
- practice communication through listening exercises, paired and group activities, and through using technology
- answer questions and express personal opinions both verbally and in writing
- compare languages and cultures through grammar study, pronunciation, art, and readings in authentic settings
- demonstrate all language skills through a variety of tasks and projects presented in the classroom

SPANISH FOR SPANISH SPEAKERS*

0418

2 Semesters 2 Credits Grades: 9-12

Fee: \$5.00

Textbook: TBD

Prerequisite: None

COURSE DESCRIPTION: [IDOE 2190] This course offers native or near-native speakers of Spanish the opportunity to develop, maintain, and enhance proficiency in their home language by reinforcing and acquiring skills in listening, speaking, reading, and writing. The course will enable students to gain a better understanding of the nature of their own language, as well as of other languages in which they might be instructed. It will also teach students to appreciate the depth and diversity of Hispanic culture both in the United States and abroad. In addition, this course will meet the needs of students who speak Spanish, but who have had little or no formal training in it.

**This course does not fulfill a world language credit requirement. Students who enroll in this class will receive elective credit only.*

NOTE: American Sign Language is not counted as World Language credit by all colleges. Students are responsible for checking.

AMERICAN SIGN LANGUAGE I

0437

2 Semesters 2 Credits Grades: 9-11

Prerequisite: None

Workbook Purchase: \$62.50

Supplemental Fee: \$3.00

COURSE DESCRIPTION: [IDOE 2156] American Sign Language I introduces American Sign Language (ASL) and the Deaf community. It focuses on frequently used signs through a functional-notional approach and discusses cultural features of the Deaf community. Emphasis is placed on the receptive and expressive skills. In the areas of reading, composition, and receptive and expressive communication skills, students have the opportunity to:

- develop visual acuity
- follow brief verbal instructions
- understand short statements, questions, and dialogues
- originate short descriptions from prompts
- read and discuss texts written by Deaf authors about their experiences
- read and discuss the history of the Deaf community
- begin to understand the current Glossing system used to write ASL

Students also learn to recognize the difference between the pathological and psychological definitions of deafness, dispel common myths associated with deafness and ASL, recognize the widespread use of ASL

throughout the United States, and develop an understanding of the intricate relationship between languages and cultures in general.

CHINESE I

0447

2 Semesters 2 Credits Grade: 9-12

Prerequisite: None

Textbook Rental: \$12.00

Workbooks Purchase: \$24.68

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2000] This beginning class introduces students to the Chinese Mandarin language and the culture with emphasis on producing modern, authentic communication. In this two-semester course, Hanyu Pinyin will be taught in the first semester. Although the textbook will use simplified Chinese characters, the traditional Chinese characters will also be taught. The course is designed for students who don't know Hanyu Pinyin and have had little exposure to Chinese language. Upon the completion of this course, students will be able to develop basic proficiencies in listening, speaking, reading and writing on the topics studied. Students will also develop understanding of the culture, philosophy and life styles of the Chinese speaking countries through learning of the various Chinese festivals, songs and poems, and engaging some cultural activities, games and crafts. Computer-assisted technology and online course materials are an integral part of the instruction in this class.

CHINESE II

0449

2 Semesters 2 Credits Grades: 9-12

(or Grades 9-12 heritage language learners)

Prerequisites: A grade of C or higher in Chinese I or heritage language learners (those who come from Chinese or bilingual home background) who know Hanyu Pinyin (PRC) and at least 50 - 100 Chinese Characters.

Textbook Rental: 12.00

Supplemental Fee: \$5.00

Workbook Purchase: \$25.16

COURSE DESCRIPTION: [IDOE 2002] The two-semester course is a continuation of Chinese I. The course aims at further developing fundamental language skills. All four skills (speaking, reading, listening and writing) will be emphasized and learned in communicative context. Students are expected to actively participate in class by engaging in interactive activities and reading and writing practices. Both simplified and traditional Chinese character forms will be taught in class. Students will also develop understanding of the culture, philosophy and life styles of the Chinese speaking countries through learning of the various Chinese festivals, songs and poems, and engaging some cultural activities, games and crafts. Upon the completion of this course, students will develop oral proficiencies in topics studied. They will be able to read and write paragraphs, statements, and dialogues. Computer-assisted technology and online course materials are an integral part of the instruction in this class.

CHINESE III

0457

2 Semesters 2 Credits Grades: 9-12

Prerequisites: A grade of C or higher in Chinese 2

Textbook Rental: \$11.50

Workbook Purchase: \$35.06

Supplemental Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2004] The two-semester course is continuation of Chinese 2. While continuing to strengthen the skills of speaking, writing, listening, and reading with Mandarin Chinese, the course also continue to incorporate the study of Chinese culture and history. By increasing students' vocabulary and their knowledge of sentence patterns, the course will promote students to obtain advanced reading and writing skill. Level III Chinese is also designed to improve students' abilities to communicate effectively and appropriately in real life social contexts. In addition, some computer-assisted technology and online course materials are an integral part of the instruction to enhance oral and listening proficiency.

Students who are interested in taking Chinese SAT II subject test currently or in the future year will get help in learning about the test and preparing the test.

REMEDIATION ONLY

ALGEBRA I LAB

0775

2 Semesters 2 Credits Grade: 9

Prerequisites: None. Students are placed in the course based on standardized test scores (NWEA, or ISTEP) and/or teacher recommendation.

Fee: \$5.00

COURSE DESCRIPTION: [IDOE 2516] Algebra I Lab is a mathematics support course for Algebra I. The course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of Algebra I Lab align with the critical areas of Algebra I. Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas Algebra I contains exclusively grade-level content, Algebra I Lab combines standards from high school courses with foundational standards from the middle grades. Algebra I Lab is designed as a support course for Algebra I. As such, a student taking Algebra I Lab must also be enrolled in Algebra I during the same academic year.

DEVELOPMENTAL READING: CONTEMPORARY LITERATURE I

0355

2 Semesters 2 Credits Grade: 9 only

Prerequisite: Test results, teacher referral, and counselor recommendation

Supplemental Fee: \$8.00

COURSE DESCRIPTION: [IDOE 1120] This course is intended to support and enhance a student's experience with the Penn High School Freshman Academy curriculum by helping students develop an understanding of themselves as readers and writers while acquiring the strategies used by highly effective readers and writers. The goal is to use contemporary, high-interest, accessible texts as the foundation around which and through which students build personal literacy identities and literacy processes. The goal is not to

teach specific texts or to re-teach English 9 curriculum. Instead, students who leave this course will better understand themselves as readers and writers and, therefore, will be more strategic about how they approach reading, writing, and learning tasks. Armed with this newfound confidence, students will find themselves more prepared to engage successfully with the many learning opportunities that are offered here at Penn High School. This is an elective course; it does not satisfy the state English graduation requirement. This elective will help students start their educational career here at Penn High School on a positive note.

THESE COURSES WILL BE SCHEDULED FOR YOU DURING YOUR

FRESHMAN CONNECTIONS CLASS:

PREPARING FOR COLLEGE & CAREERS (PCC)

1871

1 Semester 1 Credit Grade: 9

Prerequisite: None

COURSE DESCRIPTION: [IDOE 5394] The focus of this online course is on the impact of today's choices on tomorrow's possibilities. Topics will include exploration of personal aptitudes, interests, principles and goals; life and career exploration; college and/or military planning; employability skills; personal financial literacy;

transferring school skills to life and work and good decision making. This course will provide a strong foundation for becoming an involved, independent, and responsible student, employee and citizen.

INTRODUCTION TO COMMUNICATION

1881/1882

2 Semesters 2 Credits Grade: 9

Prerequisite: None

COURSE DESCRIPTION: [IDOE 4790] This is the first course in a sequence of courses designed to prepare students for college and careers with a focus on communications. The major goals of this course include an overview of communication technology; the way it has evolved, how messages are designed and produced, and how people may profit from creating information services and products. Students will explore mass media communication processes including radio and television broadcasting, publishing and printing activities, telecommunication networks, recording services, computer and data processing networks, and other related systems. Students will use the design process to solve design projects in each communication area.