

Freshman Electives

ENGLISH

Penn# 0351/0352



ADVANCED SPEECH AND COMMUNICATION

Semesters: 1 Credits: 1 Grade Level: 9-12

Weight: 4.5 DOE# 1078

IVY TECH COMM 101 Fundamentals of Public Speaking

College Credit: 3

Course Description:

This is a dual-credit course that will allow students an opportunity to earn 3 college-level credits. COMM 101 introduces fundamental concepts and skills for effective public speaking, including audience analysis, outlining, research, delivery, critical listening and evaluation, presentational aids, and use of appropriate technology, class lecture, class discussion, student presentations, and other active learning techniques will be used in this course. A prerequisite is required for the Ivy Tech portion of the course.

Penn# 0349

DEBATE

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 1070

Counts as 1 English/language arts credit

Course Description:

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.

Penn# 0333

JOURNALISM

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 1080

Course Description:

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.

Penn# 0369

RADIO & TELEVISION I

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 5986

Course Description:

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.

VISUAL ARTS

Penn# 0149 (3051)

INTRODUCTION TO TWO-DIMENSIONAL ART

Semester: 1 Credit: 1 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4000

Course Description:

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.

Penn# 0150 (3051)

INTRODUCTION TO THREE-DIMENSIONAL ART

Semester: 1 Credit: 1 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4002

Course Description:

Students who have previously received credit in ceramics or sculpture can not take this course. This course is not intended for students with previous credit in ceramics or sculpture. 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.

Penn# 0109/0110 (3014)

CERAMICS I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4040

Course Description:

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.

Penn# 0117/0118 (3018)

DRAWING I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4060

Course Description:

Intro to 2-D or 3-D Art is recommended. 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.

Penn# 0183/0184 (3072)

VISUAL COMMUNICATION

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4086

Course Description:

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. 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.

Penn# 0101/0102 (3010)

PAINTING I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4064

Course Description:

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

Penn# 0125/0126 (3022)

SCULPTURE I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4044

Course Description:

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, foam board, wire, plaster, found objects, paper mache', etc.

BAND

Penn# 0817

INTERMEDIATE CONCERT BAND

Semesters: 2 Credits: 2 Grade Level: 9

Prerequisite: Successful completion of middle school band

Weight: 4.0 DOE# 4168

Course Description:

Freshman Concert Band. 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.

Penn# 0823

PERCUSSION STUDIES

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: Successful completion of three years in Middle School band as a percussionist or currently enrolled in Percussion Studies

Weight: 4.0 DOE# 4162

Course Description:

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.

Penn# 0825

ADVANCED PERCUSSION STUDIES

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: Audition

Weight: 4.5 DOE# 4162

Course Description:

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.

Penn# 0827

INTERMEDIATE JAZZ ENSEMBLE

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisites: Must be enrolled in Symphonic or Concert Band and permission of instructor

Weight: 4.0 DOE# 4164

Course Description:

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.

ORCHESTRA

Penn# 0831

STRING ORCHESTRA

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: Successful completion of middle school orchestra

Weight: 4.0 DOE# 4172

Course Description:

String Orchestra is for 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 as these activities develop elements of musicianship. Music is selected from classical, popular, folk, and new string literature. Private lessons are highly encouraged. A limited number of public performances serve as a culmination of daily rehearsal and musical goals. Students must participate in performance opportunities outside of the school day; these support and extend learning in the classroom. Students must perform, with expression and technical accuracy, a large and varied repertoire of orchestral literature that is developmentally appropriate. Evaluations of music and music performances are included.

Penn# 0847

CONCERT ORCHESTRA

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: Audition

Weight: 4.0 DOE# 4172

Course Description:

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 as these activities develop elements of musicianship. Music is selected from classical, popular, folk, and new string literature. Private lessons are highly encouraged. A limited number of public performances serve as a culmination of daily rehearsal and musical goals. Students must participate in performance opportunities outside of the school day; these support and extend learning in the classroom. Students must perform, with expression and technical accuracy, a large and varied repertoire of orchestral literature that is developmentally appropriate. Evaluations of music and music performances are included.

Penn# 0833

SYMPHONIC ORCHESTRA

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: Audition

Weight: 4.5 DOE# 4174

Course Description:

This advanced orchestra class is available by audition to string musicians at an upper intermediate to advanced level. Emphasis is placed on tone, instrument and bow technique development, sight-reading, and advanced performance techniques. Participation in

ISSMA Solo & Ensemble contest is highly encouraged as these activities develop elements of musicianship. Serious string and full orchestra literature is selected from a variety of periods in music history. Students will have opportunities to experience live performances by professional musicians during and outside of the school day. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students will participate in performance opportunities outside of the school day that support and extend learning in the classroom. Students must perform with expression and technical accuracy on a large and varied repertoire of orchestral literature that is developmentally appropriate. Evaluations of music and music performances are included. The Symphonic Orchestra will participate in Concert Tours, Festivals, and the ISSMA State and District Contests. Students are required to attend regularly scheduled evening rehearsals, as well as extra rehearsals, which are designed to insure musically successful performances. Private lessons are strongly encouraged for successful participation in this ensemble.

CHOIR

Penn# 0801

BEGINNING CHORAL

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4182

Course Description:

Singing Kingsmen. 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.

Penn# 0803

BEGINNING CHORAL

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4182

Course Description:

Bel Canto Chorus. 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

Penn# 0835/0836 (3044)

DANCE PERFORMANCE I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4146

Course Description:

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. Student must supply own dance apparel and shoes.

THEATRE

Penn# 0343/0344 (3041)

THEATRE ARTS I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4242

Course Description:

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.

Penn# 0347/0348 (3043)

TECHNICAL THEATRE I & II

Semesters: 2 Credits: 2 Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4244

Course Description:

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.

SOCIAL SCIENCES

Penn# 1180

ETHNIC STUDIES

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisites: None

Weight: 4.0 DOE# 1516

Course Description:

Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration, and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analysis of the political impact of ethnic diversity in the United States.

Penn# 1181

INDIANA STUDIES

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisites: None

Weight: 4.0 DOE# 1518

Course Description:

Indiana Studies is an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indiana history as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their roles in a democratic society will be included and student will examine the participation of citizens in the political process. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

Penn# 1151/1152

CITIZENSHIP AND CIVICS

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisites: None

Weight: 4.0 DOE# 1508

Course Description:

Citizenship & Civics 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

Penn# 1001/1024

INTERPERSONAL RELATIONSHIPS

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisite: None

Counts as Health & Wellness requirement with 2 other courses

Weight: 4.0 DOE# 5364

Course Description:

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.

Penn# (1023/1026) 3088

CHILD DEVELOPMENT & ADVANCED CHILD DEVELOPMENT

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Counts as Health & Wellness requirement with 2 other courses

Weight: 4.0 DOE# 5362 & 5360

Course Description:

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).

Penn# (1007/1008) 3087

NUTRITION AND WELLNESS & ADVANCED NUTRITION AND WELLNESS

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Counts as Health & Wellness requirement with 2 other courses

Weight: 4.0 DOE# 5342 & 5340

Course Description:

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.

Penn# 1025

INTRODUCTION TO FASHION & TEXTILES

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Counts as a fine arts requirement

Weight: 4.0 DOE# 5380

Course Description:

Sewing. 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. Students provide their own fabric and supplies for projects.

BUSINESS

Penn# 0269/0270



DIGITAL APPLICATIONS AND RESPONSIBILITY

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisites: None

Weight: 4.5 DOE# 4528

Ivy Tech- CINS 101 Introduction to Microcomputers

College Credits: 3

Course Description:

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.

Penn# 0205

COMPUTER ILLUSTRATION AND GRAPHICS

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4516

Course Description:

Students are introduced to the computer's use in visual communication. The focus of the course is on basic computer terminology and use, mastering fundamental skills, and developing efficient working styles. These skills are then developed by creating work with imaging, drawing, interactive and page layout software. The course includes organized learning experiences that incorporate a variety of visual art techniques as they relate to the design and execution of layouts and illustrations for advertising, displays, promotional materials and instructional manuals. This course also covers advertising theory and preparations of copy, lettering, posters, vector illustrations, graphics and logos, and artwork in addition to incorporation of photographic images. Communication skills will be emphasized through the study of effective methods used to design products that impart information and ideas. Advanced instruction might include experiences in silk screening and airbrush techniques as well as activities in designing product packaging and commercial displays or exhibits.

Penn# 0229

PRINCIPLES OF MARKETING

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 5914

Course Description:

Principles of Marketing take place every day of your life and in every job you will hold. This is a class designed to teach students not only about the various functions of marketing, but also how each function fits with the others. Throughout the course, students will learn about marketing in a global economy, sports and entertainment marketing, fashion merchandising, E-commerce, developing a new product, professionalism, and also will be able to create an advertising campaign and learn about possible careers in Marketing. Voluntary Membership in a Marketing Club (DECA)

Penn# 0235/0236

INTRODUCTION TO BUSINESS

Semesters: 1 Credits: 1

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4518

Course Description:

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.

Penn# 0203/0204

INTRODUCTION TO COMPUTER SCIENCE (PLTW-CSE)

Semesters: 1 Credits: 1


Grade Level: 9-10

Prerequisite: None

Weight: 4.0 DOE# 4803

Course Description:

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.

Penn# 0217 

COMPUTER SCIENCE I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.5 DOE# 4801

SDEV 120 Computing Logic- Ivy Tech

SDEV 120 Computing Logic-Ivy Tech

College Credits: 3

Course Description:

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.

SCIENCE

Penn# 0909

PLTW PRINCIPLES OF BIOMEDICAL SCIENCES (PBS) Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: Biology I (or current enrollment in Biology I)

Weight: 4.5 DOE# 5218

Course Description:

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

Penn# 0644

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisites: None

Weight: 4.0 DOE# 5056

Course Description:

(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

Penn# 0605



**PLTW INTRODUCTION TO
ENGINEERING DESIGN (IED)**

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None.

Weight: 4.5 DOE# 4812

Ivy Tech- DESN 101 Intro to Design Technology

College Credits: 3

Course Description:

(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 Innovation Challenge, Canstruction, and Mission to Engineer.

Penn# 0606



**PLTW INTRODUCTION TO
ENGINEERING DESIGN (IED)**

All Girls

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.5 DOE# 4812

Ivy Tech- DESN 101 Intro to Design Technology

College Credits: 3

Course Description:

(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 Innovation Challenge, Canstruction, and Mission to Engineer.

Penn# 0602 (0614 - 0 Hour)



FIRST TECH CHALLENGE IED – FTC9

Semesters: 2 Credits: 2

Grade Level: 9

Weight: 4.5 DOE# 4802

Ivy Tech- DESN 101 Intro to Design Technology

College Credits: 3

Course Description:

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.**

Penn# 0604



ARCHITECTURAL DESIGN I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.5 DOE# 5640

Ivy Tech- DESN 101 Intro to Design Technology

College Credits: 3

Course Description:

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.

Penn# 0603



COMPUTERS IN DESIGN & PRODUCTION

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.5 DOE# 4800

Ivy Tech- DESN 101 Intro to Design Technology

College Credit: 3

Course Description:

Computers in Design and Production is a course that specializes in using modern technological processes, computers, design, and production systems in the production of products and structures through the use of automated production systems. Emphasis is placed on using modern technologies and on developing career related skills. Students apply ingenuity using tools, materials, processes, and resources to create solutions. Students will address major technological content related to topics such as: Architectural drawing and print design, design documentation using CAD systems, assignments involving the interface of CAD, CNC, CAM and CIM technologies; computer simulation of products and systems; publishing of various media; animation and related multimedia applications; 3-D modeling of products or structures; digital creation and editing of graphic and audio files; control technologies; and automation in the modern workplace.

Penn# 0615



INFORMATION TECHNOLOGY SUPPORT

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: Digital Applications and Responsibility

Weight: 4.5 DOE# 5230

Ivy Tech- INFM 109 Informatics Fundamentals & ITSP 135 Hardware/Software Support

Course Description:

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.

Penn# 0625

ADVANCED MANUFACTURING I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 5608

Course Description:

Advanced Manufacturing 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.

Penn# 0629

INTRODUCTION TO CONSTRUCTION

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 4792

Course Description:

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.

Penn# 0631

CONSTRUCTION TRADES

Semesters: 2 Credits: 2

Grade Level: 10-12

Prerequisite: Introduction to Construction

Weight: 4.0 DOE# 5580

Course Description:

Construction Trades I is a specialized course that builds on the fundamentals acquired in the Introduction to Construction class to further understand the technological processes used in the building trades industry. Students will learn common processing and assembly methods and employ those techniques to create a wide variety of projects.

WORLD LANGUAGES

Penn# 0401

FRENCH I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2020

Course Description:

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

Penn# 0409

GERMAN I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2040

Course Description:

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

Penn# 0425

JAPANESE I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2060

Course Description:

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

Penn# 0417

SPANISH I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2120

Course Description:

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.

Penn# 0445

SPANISH I ACCELERATED

Semesters: 2 Credits: 2

Grade Level: 9

Prerequisite: None

Weight: 4.0 DOE# 2120

Course Description:

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.

Penn# 0418

SPANISH FOR SPANISH SPEAKERS*

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2190

Course Description:

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.*

Penn# 0447

CHINESE I

Semesters: 2 Credits: 2

Grade Level: 9-12

Prerequisite: None

Weight: 4.0 DOE# 2000

Course Description:

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 lifestyles 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.