

# **Knox Community High School**



## **Course Description Guide**

**2023-2024**

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## 21st Century Scholars information for 8th grade students

Indiana started the 21st Century Scholars in 1990 to ensure that every student can afford a college education. Income-eligible 7th and 8th graders who enroll in the program and fulfill a pledge of good citizenship are guaranteed to receive up to four years of undergraduate tuition\* at any participating public college or university in Indiana. If you attend a private or an independent institution, the state will award an amount comparable to that of a public institution. If you attend a participating proprietary (private career) school, the state will award a tuition scholarship equal to that of Ivy Tech Community College of Indiana.

Once they get to college, students who are 21st Century Scholars receive support to finish their college degrees. But first you must enroll in the program. Students and their parents must complete the online application by June 30 of the 8th grade year. Don't wait. Apply online today at:  
[scholars.in.gov/parents/enroll](http://scholars.in.gov/parents/enroll)

\*The scholarship amount may be reduced depending on the availability of funds and the availability of the student's family to contribute to college.

### **21<sup>st</sup> Century Scholars**

The [Scholar Success Program](#) includes activities that will help you stay on track for college and career success. Each grade level has three activities scholars must complete. Scholars can complete the specific steps for their grade level and track their progress using [ScholarTrack](#).

- Scholars must earn at least a Core 40 diploma and a cumulative GPA of 2.5 on a 4.0 scale.

09	Create a Graduation Plan*	Participate in an Extracurricular or Service Activity	Watch "Paying for College 101"
10	Take a Career Interests Assessment	Get Workplace Experience**	Estimate the Costs of College
11	Visit a College Campus	Take a College Entrance Exam (ACT/SAT)	Search for Scholarships***
12	Submit Your College Application	Watch "College Success 101"	File Your FAFSA

**Credits and graduation requirements are checked each semester by the guidance department, but it is the ultimate responsibility of the student to make sure that his/her graduation requirements have been met.**

### **Calculation of Grade Point Average (GPA)**

Each semester grade is comprised of 2 quarter grades and a final exam. A student's GPA is calculated by the computer at the end of each semester. Student GPA's are displayed on the student's permanent record (transcript) along with the semester grades. Semester GPA's are averaged for cumulative GPA, on which class rank is based.

To calculate a GPA, each letter grade is converted to a numerical equivalent. While most grades are based on the "regular" scale, some courses carry a "weighted" grade. These classes include "honors, "AP", and "dual credit" courses (see below).

<b>GRADE SCALE</b> <i>(Beginning '20-21)</i>			
	Regular	Weighted	%
A+	4.33	4.67	100
A	4	4.33	99-91
A-	3.67	4	90
B+	3.33	3.67	89
B	3	3.33	88-81
B-	2.67	3	80
C+	2.33	2.67	79
C	2	2.33	78-71
C-	1.67	2	70
D+	1.33	1.67	69
D	1	1.33	68-61
D-	0.67	1	60
F	0	0	59-0

## 1. Course and Credit Requirements

English	<b>8 credits</b>
	Including a balance of literature and composition.
Math	<b>6 credits (grades 9-12)</b> <i>All students must complete a math or quantitative reasoning course each year in high school</i>
	2 credits: Algebra I
	2 credits: Geometry
	2 credits: Algebra II
Science	<b>6 credits (grades 9-12)</b>
	2 credits: Biology I
	2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics
	2 credits: any Core 40 science course
Social Studies	<b>6 credits</b>
	2 credits: U.S. History
	1 credit: U.S. Government
	1 credit: Economics
	2 credits: World Hist or Geography & Hist of the World
Directed Electives	<b>5 credits</b>
	World Languages--Fine Arts--Career-Technical
Physical Education	<b>2 credits</b>
Health and Wellness	<b>1 credit</b>
Electives	<b>8 credits</b> (College and Career Pathway Courses recommended)

**42 Total Credits Required**

## Graduation Pathways:

### 2. Employability Skills

Students must complete at least one of the following:

- Project-Based Learning Experience
- Service-Based Learning Experience
- Work-Based Learning Experience

### 3. Postsecondary-Ready Competencies

Students must complete at least one of the following:

- **Honors Designation:** Fulfill all requirements of either the Academic or Technical Honors designation
- **ACT:** English 18 or Reading 22 & Math 22 or Science 23
- **SAT:** EBRW 480 & Math 530
- **ASVAB:** AFQT 31
- **State- and Industry-recognized Credential or Certification**
- **Career-Technical Education Concentrator:** Must earn a C average or higher in a Next Level Program of Study course sequence.
- **AP/Dual Credit:** Must earn a C average or higher in at least three courses
- **Locally Created Pathway- Civic Arts**

### Core 40 with Academic Honors (min. 47 credits)

- Complete all requirements for Core 40
- Earn a grade of a "C-" or better in courses that will count toward the diploma
- Have a cumulative grade point average of a "B-" or better (2.67) by the end of senior year
- Earn 2 additional Core 40 math credits
- Earn 6-8 Core 40 world language credits (6 credits in one language or 4 credits each in two languages)
- Earn 2 Core 40 fine arts credits
- Complete one of the following:
  - A. Earn 4 credits in 2 or more AP courses (with exams)
  - B. Earn 6 dual credits from the priority course list
  - C. Earn both of the following:
    - a. 3 dual credits from the priority course list
    - b. 2 credits in AP courses (with exams)
  - D. SAT score of 1250 or higher (minimum 560 Math, 590 EBRW)
  - E. ACT composite score of 26 or higher (including

### Core 40 with Technical Honors (min. 47 credits)

- Complete all requirements for Core 40
- Earn a grade of a "C-" or better in courses that will count toward the diploma
- Have a cumulative grade point average of a "B-" or better (2.67) by the end of senior year
- Earn 6 credits in a state-approved College & Career Pathway and one of the following:
  - A. Pathway designated industry-based certification or credential
  - B. Earn 6 pathway dual credits from the priority course list
- Complete one of the following:
  - A. Any of the options (A-E) from the Core 40 with Academic Honors
  - B. Earn the following minimum scores on WorkKeys: Workplace Documents - Level 6, Applied Mathematics - Level 6, Graphic Literacy - Level 5
  - C. Accuplacer: Writing 80, Reading 90, Math 75

## Knox High School Indiana General High School Diploma

The completion of Core 40 is an Indiana graduation requirement. Indiana's Core 40 curriculum provides the academic foundation all students need to succeed in college and the workforce.

To graduate with less than Core 40, the following formal opt-out process must be completed:

- The student, the student's parent/guardian, and the student's counselor (or other staff member) must meet to discuss the student's progress.
- The student's Graduation Plan (including 4 year course plan) is reviewed
- The student's parent/guardian determines whether the student will achieve greater educational benefits by completing the general curriculum or the Core 40 curriculum.

If the decision is made to opt-out of Core 40, the student is required to complete the course and credit requirements for a general diploma and the career/academic sequence the student will pursue is determined.

### Course and Credit Requirements (Class of 2016 & Beyond)

English	<b>8 credits</b> <i>Credits must include literature, composition and speech</i>
Math	<b>4 credits (grades 9-12)</b> 2 credits: Algebra I 2 credits: Any math course <b>General diploma students are required to earn 2 credits in a Math course or a Quantitative Reasoning (QR) course during their junior or senior year. QR courses do not count as math credits.</b>
Science	<b>4 credits</b> 2 credits: Biology I 2 credits: Any science course <b>At least one credit must be from a Physical Science or Earth and Space Science course.</b>
Social Studies	<b>4 credits</b> 2 credits: U.S. History 1 credit: U.S. Government 1 credit: Any social studies course
Physical Education	<b>2 credits</b>
Health and Wellness	<b>1 credit</b>
College and Career Pathway Courses	<b>6 credits</b> <i>Selecting electives in a deliberate matter to take full advantage of college and career exploration and preparation opportunities</i>
Flex Credit	<b>5 credits</b> Flex credits must come from: Additional College and Career Pathway Courses, Cooperative Education, Dual credit, or additional credits in Language Arts, Social Studies, Mathematics, Science, World Languages, or Fine Arts
Electives	<b>6 credits</b> Specifies the minimum number of electives required by the state. High School schedules provide time for many more elective credits during the high school years.

**40 Total Credits Required**

## Graduation Pathways:

### 2. Employability Skills

Students must complete at least one of the following:

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- Work-Based Learning Experience

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- **AP/Dual Credit:** Must earn a C average or higher in at least three courses
- **Locally Created Pathway-** Civic Arts

## Knox High School

### 2022-23 Dual Credit Courses

Knox Course	DOE #	Cost	Credit Hours	College	College Course Title
Adv English/Lang Arts CC:Composition 1	1124	\$75*	3	Vincennes U	ENG 101 English Composition 1
Adv English/Lang Arts CC:Composition 2	1124	\$75*	3	Vincennes U	ENG102 English Composition 2
Government Honors	1540	\$75*	3	Indiana Univ	POLS- Y 103 Intro to American Politics
Honors Pre-Calculus: Algebra	2564	\$150*	6	Indiana Univ	Math-M 125 PreCalculus Mathematics
Honors Pre-Calculus: Trigonometry					Math-M 126 Trigonometric Functions
Calculus	2527	\$125	5	Indiana Univ	Math 215 Calculus I
Honors US History	1542	\$150*	6	Indiana Univ	HIST 105 American History I
					HIST 106 American History II
Hon Anatomy & Physiology	3090	\$100*	4	Indiana Univ	PHSL-P 130 Human Biology
Hon Biology 2 Adv Sci	3090	\$125*	5	Indiana Univ	BIOL-L100 Humans and the Biological World
Advanced Speech	1078	Free	3	Ivy Tech	COMM 101 Fund. of Public Speaking**
Honors Spanish 3	2124	\$200*	8	Vincennes U	SPAN 101 Spanish Level I
					SPAN 103 Spanish Level II
Honors Spanish 4	2126	\$200*	8	Vincennes U	SPAN 201 Spanish Level III
					SPAN 203 Spanish Level IV

\*Tuition assistance is available to students who receive free/reduced lunch.

\*\* Prerequisite/grade/PSAT score/Accuplacer test score required to earn Dual Credit

*These courses are on the Indiana Core Transfer Library. For a complete list, go to <http://transferin.net>*

Career Technical Education (CTE)					
Principles of Agriculture	7117	Free	3	Ivy Tech	AGRI 100 Introduction to Agriculture
Animal Science	5008	Free	3	Ivy Tech	AGRI 103 Animal Science
Adv. Life Sci- Animals	5070	Free	3	Ivy Tech	AGRI 115 Natural Resource Management
Horticulture Science	5132	Free	3	Ivy Tech	AGRI 116 Survey of Horticulture
Principles of Business Management	4562	Free	3	Ivy Tech	BUSN 101 Introduction to Business
Marketing Fundamentals	5914	Free	3	Ivy Tech	MKTG 101 Principles of Marketing
Administrative and Office Management	5268	Free	3	Ivy Tech	MBUSN 105 Principles of Management
<b>Automotive Services</b>					
Principles of Automotive Services	7213	Free	6	Ivy Tech	AUTI 100, 111
Brake Systems	7205	Free	3	Ivy Tech	AUTI 121
Steering and Suspension	7212	Free	6	Ivy Tech	AUTI 122, 145
Auto Service Technology II	5546	Free	3	Ivy Tech	AUTI 111, AUTI 131
<b>Culinary Arts</b>					
Principles of Culinary & Hospitality	7173	Free	6	Ivy Tech	HOSP 101, 102
Nutrition	7171	Free	3	Ivy Tech	HOSP 104
Culinary Arts	7169	Free	3	Ivy Tech	HOSP 105
Culinary Arts II	5346	Free	3	Ivy Tech	HOSP 104, 105
<b>Digital Design</b>					
Principles of Digital Design	7140		6	Ball State	TGRA 180/286
Digital Design Graphics	7141		6	Vincennes	TGRA 184

Graphic Design Layout	5550		3	Vincennes	DESN 120/DESN 155
<b>Early Childhood Education</b>					
Principles of Early Childhood	7160	Free	6	Ivy Tech	ECED 100, 101
Early Childhood Education Curriculum	7158	Free	3	Ivy Tech	ECED 103
Early Childhood Education Guidance	7159	Free	3	Ivy Tech	ECED 130
Early Childhood Education II	5406	Free	3	Ivy Tech	ECED 105/ECED 103
<b>Emergency Medical Services</b>					
Principles of Healthcare	7168	Free	6	Ivy Tech	HLHS 100, 104
Medical Terminology	5274	Free	6	Ivy Tech	HLHS 101, 102
Emergency Medical Tech	7165	Free	7.5	Ivy Tech	PARM 102

<b>Pre Nursing/Healthcare Specialist</b>					
Principles of Healthcare	7168	Free	6	Ivy Tech	HLHS 100, 104
Medical Terminology	5274	Free	6	Ivy Tech	HLHS 101, 102
Health Science Education II	5284	Free	5	Ivy Tech	HLHS 107
<b>Welding Technology</b>					
Principles of Welding Technology	7110	Free	3	Ivy Tech	WELD 100
Shielded Metal Arc Welding	7111	Free	6	Ivy Tech	WELD 108, WELD 206
Gas Welding Processes	7101	Free	9	Ivy Tech	WELD 207, WELD 272
Welding Technology II	5778	Free	6	Ivy Tech	WELD 109, WELD 207

### CTE - Off-Campus

<b>Aviation Management- Plymouth</b>					
Principles of Aviation Management	7214	Free	6	Ivy Tech	AVIT 111
Private Pilot Theory	7217	Free	2	Ivy Tech	AVIT 120
Aviation Operations	5528	Free	3	Ivy Tech	AVIT 132, AVIT 135, AVIT 138, AVIT 208
<b>Precision Machining- Plymouth</b>					
Principles of Precision Machining	7109	Free	6	Ivy Tech	MTTC 101, MTTC 106
Precision Machining Fundamentals	7105	Free	6	Ivy Tech	MTTC 102, MTTC 103
Advanced Precision Machining	7107	Free	6	Ivy Tech	MTTC 105, MTTC 110
Precision Machining II	5784	Free	3	Ivy Tech	MTTC 106, MTTC 107
<b>Criminal Justice- Plymouth</b>					
Criminal Justice II	5824	Free	6	Ivy Tech	CRIM 103, CRIM 110

### Industry Recognized Certifications Available

Course	Pathway Qualifier		Certification
Automotive Technology	Yes	ASE - (A1 - A9)	
Construction I & II	No	OSHA 10	
Cosmetology	Yes	Indiana State Board of Cosmetology and Barber Examiners - 1500 Cosmetology	
Culinary Arts	Yes	ServSafe Food Manager	
Early Childhood Education II	Yes	Child Development Associate (CDA)	
Emergency Medical Services	Yes	EMT - Basic	
Health Science Education I	No	CPR	
Health Science Education II	Yes	Certified Nursing Assistant (CNA)	
Precision Machining	Yes	NIMS Machining Level I - Mill Operations	
Precision Machining	No	NIMS Machining Level I - Measurement, Materials, and Safety	
Welding I & II	Yes	AWS SENSE:Entry Level Welder, & AWS SENSE:Advanced Level Welder	
Welding	No	OSHA 10	
Graphics	Yes	Adobe Certified Expert (ACE) PhotoShop	



# Indiana GRADUATION PATHWAYS

The path to graduation is not one-size-fits-all. Indiana provides many pathways for students to earn a high school diploma.

## OVERVIEW

Students starting with the Class of 2023 must meet all of the following:

- 1 Credits**
- 2 Learn & Demonstrate Employability Skills**
- 3 Postsecondary-Ready Competencies**

## DIPLOMA REQUIREMENTS

- 1 Credits**  
 Earn credits toward a diploma with designation.
  - Core 40 - minimum 40 credits
  - Academic Honors - minimum 47 credits
  - Technical Honors - minimum 47 credits
  - General
- 2 Learn & Demonstrate Employability Skills**  
 Produce defined outcome(s) based on experience.  
**Defined Outcome Options**
  - Videos
  - Papers
  - Resume
  - Dual Credit
  - Certifications
  - Portfolio
  - Projects
  - Slideshows
  - Presentation
  - Five Year Goal Plan
  - Reflection of Experience
  - Letters of Recommendation
  - Letter of Employment Verification
  - Postsecondary-related Experiences
  - Co-Curricular Participation
  - Extra-Curricular Participation
  - Locally Defined Outcome
- 3 Postsecondary-Ready Competencies**  
 Meet at least one of these competencies.
  - **Honors Diploma**  
academic or technical
  - **SAT**  
reading/writing = 480, math = 530
  - **ACT**  
english = 18, reading = 22, math = 22, science = 23 (2 out of 4 needed with at least one in English/Reading and one in Math/Science)
  - **ASVAB**  
minimum of 31
  - **Industry Certification**  
certification from approved DWD list
  - **Apprenticeship**  
federally recognized
  - **CTE Concentrator**  
Coverage or higher in at least 2 advanced HS courses in a state-approved CTE Pathway
  - **AP/IB/Dual Credit/ Cambridge International/CLEP**  
Coverage or higher in 3 courses (1 of the 3 courses must be in core content area or all three must be part of a CTE pathway)
  - **Locally Created Pathway**  
approved by SBOE
  - **Waiver**  
see listed web link

## TRACKING

- 1 Transcript with Completed Courses**  
 Project-Based Experience  
*Allows students to gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question.*
- 2 Work Toward Completion of One of the Experiences Below**
  - Service-Based Experience  
*Integrates academic study with service experience, reflects larger social, economic, and societal issues, and collaborative efforts between students, schools, and community partners.*
  - Work-Based Experience  
*Activities that occur in a workplace while developing the student's skills, knowledge, and readiness for work.*
- 3 Course Selection, Graduation Plan, & Testing Opportunities**

## ENGLISH/LANGUAGE ARTS

### **English 9**

IDOE #1002

Term: Full Year  
Offered: 9th grade  
Prereq: None

English 9, an integrated English course based on the Indiana Academic Standards for English/Language Arts in Grades 9-10, is a study of language, literature, composition, and oral communication, focusing on literature within an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository (informative), narrative, and argumentative/persuasive compositions, and sustained research assignments. Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

### **English 9 Honors**

IDOE #1002

Term: Full Year  
Offered: 9th grade  
Prereq: B- average in MS English courses. Middle School honors sequence or signature of MS English teacher.

The goal of Freshman Honors English is to present a challenge to the student who has demonstrated significant ability in the areas of reading, writing, verbal communication, and are capable of analysis of these three areas. Increased reading, writing, class & small group discussion, and higher-level thinking skills are encouraged and required for success in this class. Students will read a large variety of literary pieces from several genres, as well as one or more outside novels per grading period. Focus is also placed on developing composition skills through learning the seven basic writing methods and reviewing grammar, punctuation, and usage skills learned in middle school. An involved study of vocabulary and spelling will also be incorporated into the class, using challenging words commonly found on the SAT exam.

***Students must maintain a C average to remain in the honors program***

### **English 10**

IDOE #1004

Term: Full Year  
Offered: 10th grade  
Prereq: English 9

English 10, an integrated English course based on the Indiana Academic Standards for English/Language Arts in Grades 9- 10, is a study of language, literature, composition, and oral communication, focusing on literature with an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository (informative) and argumentative/persuasive compositions, and sustained research assignments.

Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

### **English 10 Honors**

IDOE #1004

Term: Full Year

Offered: 10th grade

Prereq: English 9 Honors or Teacher Recommendation

English 10 Literature Honors students study American literature in a chronological format. Relating the insights of writers to their times improves student understanding of the dominant literary forms that are uniquely American. Examining literary techniques, increasing spelling and vocabulary skills, and recognizing and appreciating the American literary heritage are other aspects of the course. English 10 Composition Honors segment studies all the facets of grammar and composition, including more and different kinds of writing assignments, culminating in an advanced research paper. Vocabulary, spelling, and word origin skills are emphasized. Speech skills are developed.

### **English 11**

IDOE #1006

Term: Full Year

Offered: 11th grade

Prereq: English 10

English 11 is a study of language, literature, composition, and oral communication focusing on American literature. Students will use literary interpretation, analysis, comparisons, and evaluation to read and respond to works of historical and cultural significance both classic and contemporary. Students will study theatre, poetry, novels, and nonfiction. Students will write responses to literature, academic essays, a short research blog, and poetry. In this course, students will develop vocabulary, learn to write for specific audiences and purposes, and practice speech and presentation skills.

### **English 11 Honors**

IDOE #1058

Term: Full Year

Offered: 11th grade

Prereq: Honors English 9,10,11 or signature of current English 10 teacher and AP teacher.

Students in English 11 Honors will study literature and composition. Studies in literature will range from Anglo-Saxon beginnings to Modern day. These eras aid in a contemporary analysis of narratives, poetry and plays. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary British literature balance. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the way's writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

**AP English Literature**

IDOE #1058

Term: Full Year

Offered: 12th grade

Prereq: Honors English 10,11 or signature of current English 11 teacher and AP teacher. Taking the AP exam at the end of the year is a requirement.

AP English Literature and Composition is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

**English 12**

IDOE #1008

Term: Full Year, may be taken one semester in conjunction with another required course.

Offered: 12th grade

Prereq: None

Students in English 12 will study literature and composition. Studies in literature will range from Anglo-Saxon beginnings to Modern day. These eras aid in a contemporary analysis of narratives, poetry and plays. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary British literature. Students respond to literature, write academic essays, explore research assignments, and participate in discussions over why storytelling matters.

**Advanced English, College Credit: Composition 1 & 2**

IDOE #1124

Term: Full Year

Offered: 12th grade

Prereq: AP English Literature or approval from Advanced English, CC teacher.

**Dual Credit is available.**

Advanced English/Language Arts, College Credit, is an advanced course based on the Indiana Academic Standards for English/Language Arts. This course title covers any English language and composition advanced course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school.

**Technical Communication: Real World Skills**

IDOE #1096

Term: One semester

Offered: 11<sup>th</sup>- 12th grade

Prereq: None. Not recommended for college-bound seniors

Technical Communication is the study and application of the processes and conventions needed for effective technical writing. Students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the

purpose for writing, and style. Real world literacy skills are emphasized through reading and writing assignments based in digital media and career building. Students complete a volunteer project including a multimedia presentation/proposal that demonstrates knowledge, application, and writing progress. This course is best suited to seniors who have struggled in more traditional English courses or who need an additional English/Language Arts credit to fulfill requirements for their diploma.

### **Film Literature**

IDOE #1034

Term: One semester

Offered: 11th-12th grade

Prereq: None. Not recommended for college-bound seniors

Film Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of how literature is adapted for film or media. This course will use films as the mode text. Here, students learn about the history of film, the influence of film on culture, and matters of interpretation, production and adaptation. Students examine the visual interpretation of literary techniques, camera choices, and sound techniques in film and the limitations or special capacities of film versus text to present a literary work. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### **Speech**

IDOE #1076

Term: One semester

Offered: 10th -12th grade

Prereq: English 9

Speech, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the basic principles and techniques of effective oral communication. Students deliver focused and coherent speeches that convey clear messages, using gestures, tone, and vocabulary appropriate to the audience and purpose. Students deliver different types of oral and multimedia presentations, including viewpoint, instructional, demonstration, informative, persuasive, and impromptu. Students use the same Standard English conventions for oral speech that they use in their writing.

### **Advanced Speech and Communication**

IDOE #1078

Term: Two Semesters

Offered: 10th-12th grade

Prereq: Students must meet the minimum PSAT/SAT or Accuplacer test requirements for admission to the course.

**Dual Credit is available.**

Advanced Speech and Communication, a course based on the Indiana Academic Standards for English/Language Arts and emphasizing the High School Speech and Communication Standards, is the study and application of skills in listening, oral interpretation, media communications, research methods, and oral debate. Students deliver different types of oral and multimedia presentations, including speeches to inform, to motivate, to entertain, and to persuade through the use of impromptu, extemporaneous, memorized, or manuscript delivery.

## **Grammar**

IDOE #1062

Term: One semester

Offered: 9<sup>th</sup>-10<sup>th</sup> grade

Prereq: Low grades in previous English/Language Arts course.

Grammar, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the English language system. Students examine and apply the conventions of oral and written expression that include syntax, usage, punctuation, and spelling. Students learn grammatical terminology, study grammar in the context of reading and writing, and apply grammatical concepts in writing and speaking. ***This class is co-taught with the Special Education department for students who historically struggle in English/Language arts. Students do not have to have an IEP to take this course.***

## **Short Stories**

IDOE #1046

Term: One Semester

Offered: 9<sup>th</sup>-10<sup>th</sup> grade

Prereq: Low grades in previous English/Language Arts course.

Short Stories, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the distinct features of the short story, such as tightly focused narrative fiction. The course may be organized by historical periods, themes, or authors. Students examine short stories with modernist and contemporary themes by a variety of authors from the perspective of audience, purpose, and historical development. Students analyze what distinguishes the short story genre from other literary genres, such as the novels, epics, romances, biographies, etc. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum. ***This class is co-taught with the Special Education department for students who historically struggle in English/Language arts. Students do not have to have an IEP to take this course.***

## **Student Media**

IDOE #1086

Term: Full Year, may be taken for successive years.

Offered: 9th-12th grade

Pre-req: Successful completion of journalism application process and yearbook adviser's approval.

This course will focus on the production of the school's yearbook (Sandbur). Highly specialized training in journalistic writing, layout, advertising, photography, desktop publishing, and trends will be emphasized. Field trips will also be taken to learn about current trends and career possibilities in the journalism business. NOTE: These classes are also considered as extracurricular activities. After-school time will be necessary for successful completion in either class.

***Fulfills a Fine Arts requirements for the Academic Honors Diploma.***

## **FINE ARTS**

*All courses listed below fulfill the requirement of fine arts for the Academic Honors Diploma. All courses listed count as electives for all diplomas.*

### **Music**

#### **Beginning Concert Band**

IDOE #4160

#### **Intermediate Concert Band**

IDOE #4168

#### **Advanced Concert Band**

IDOE #4170

Term: Full Year

Offered: 9<sup>th</sup>-12<sup>th</sup> grade

Prereq: None. The nature of this course allows for successive semesters

As the premier performing group of the Knox Community High School Band Department, the band performs at concerts, home football games, home basketball games, and other performances throughout the year. Members must attend summer rehearsals, band camp, after school rehearsals, and all performances. Attendance at all rehearsals and performances is mandatory and will be reflected in the student's grade. This is a yearlong course that includes participation in the following activities: Marching Band, Pep Band, and either Advanced Concert Band. Students taking this course are provided with a balanced comprehensive study of music through the marching band, pep band, and concert bands. Experiences in these classroom settings will include, but are not limited to: tone production, technical skills, intonation, balance and blend, music reading and sight-reading skills, listening skills, analysis of music, and the study of the history of significant musical styles.

#### **Jazz Ensemble**

IDOE #4164

Term: Full Year

Offered: 9<sup>th</sup>-12<sup>th</sup> grade

Prereq: Auditions and/or Teacher Recommendation. The nature of this course allows for successive semesters

The jazz ensemble performs at contests and concerts throughout the year. A limited amount of time outside of the school day may be scheduled for rehearsals and performances. Student participants must also be receiving instruction in one of the following courses: Concert/Marching/Pep Band, Dance Performance, Beginning Chorus, or Advanced Chorus. Students will be asked to play one of the following instruments: saxophone, trombone, trumpet, piano, bass guitar, guitar, or percussion. Attendance at all rehearsals and performances is mandatory and will be reflected in the student's grade.

Jazz Ensemble is an extension of the larger ensemble experience. The Jazz ensemble reflects traditional Big Band experience through traditional and non-traditional instrumentation. Through listening to recordings, critiquing, analyzing, discussion and application, students will learn a variety of jazz styles found within this genre. Improvisation is a defining element of the Jazz idiom and therefore will be studied on a high level. Students will understand the history of jazz and be able to associate specific musicians to distinct types of jazz. This is a performance class; therefore, students are expected to attend all rehearsals, sectionals and performances.

### **Music Theory and Composition**

IDOE #4208

Term: One semester

Offered: 9th-12th grade

Prereq: None

Music Theory and Composition 1 will establish and reinforce the basic fundamentals of music. Students will develop an understanding of the building blocks of music including, notes, note value, time signatures, key signature, scales, and music terminology. Students will begin to facilitate their understanding of these concepts with various exercises in ear training and listening. Students will be able to play simple melodies on a keyboard instrument. Students will create simple melodies and/ or harmonies. Students will evaluate music and musical performances.

### **Applied Music- Guitar 1 and 2**

IDOE #4200

Term: One Semester each

Offered: 9th-12th grade

Prereq: **Students must provide their own guitar for class**

This one-semester course is designed for students with no previous guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar at a beginning level and will learn many of the different styles, skills and techniques required to become a successful guitarist. Areas of concentration include: correct posture, note reading, aural skills, flat-picking, singing songs, rhythmic patterns, chord study, finger-picking styles, musical forms, improvisation and performing experiences.

### **Piano and Electronic Keyboard**

IDOE #4204

Term: One Semester each

Offered: 9th-12th grade

Prereq: None. The nature of this course allows for successive semesters

Class Piano is a semester long course designed for the student with no piano experience. Throughout this course students will learn the basics of music theory, piano technique, sight reading technique, and improvisation. Other basic concepts covered in this course include (but are not limited to) the following: learning scales, arpeggios, and I-IV-V chords with appropriate fingerings, working on repertoire suitable to the students' present skill levels, as well as working on repertoire of the students' interest. This course also provides leeway for students to move at an accelerated pace.

### **Choral Chamber Ensemble**

IDOE #4180

Term: Full Year

Offered: 9th-12th grade

Prereq: Audition required. Student must already be enrolled in Advanced Choir to join. The nature of this course allows for successive semesters

Chamber Singers is an audition-only ensemble that focuses on more advanced repertoire. To be in the Chamber Choir students must already be enrolled in the Advanced Choir to join. Students will be required to participate in multiple performances throughout the year that may

exceed the quarterly concerts. These performances will count as a major part of the student's grade. This accelerated class explores more advanced repertoire and advances on the basic skills of vocal technique, motet singing, sight-reading, music theory, and music history.

**Beginning Chorus**

IDOE #4182

**Intermediate Chorus**

IDOE #4186

**Advanced Chorus**

IDOE #4188

Term: Full Year

Offered: 9th-12th grade

Prereq: Recommendation from director. The nature of this course allows for successive semesters

Chorus is a year-long course that explores choral music from a wide variety of cultures and time periods through study and performance. This class emphasizes the basic skills of rehearsal etiquette, vocal technique, sight-reading, music theory, and music history. Students in this ensemble are expected to participate in one evening concert each quarter, as well as attend ISSMA organizational competitions in the spring, as a major part of their grade.

**Visual Arts**

**Introduction to Two-Dimensional Art**

IDOE #4000

Term: One Semester

Offered: 9th-12th grade

Prereq: none

Introduction to Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art production with creation of portfolio quality works, art history, and criticism. Students explore historical and cultural background and connections; analyze, interpret, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work.

**Advanced Two Dimensional Art**

IDOE #4004

Term: One Semester

Offered: 9th-12th grade

Prereq: Intro to 2-D Art

Advanced Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students in this course build on the sequential learning experiences of Introduction Two/Three-Dimensional Art that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students in this project based, independent study course will explore historical and cultural background and connections; analyze, interpret, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work.

**Introduction to Three-Dimensional Art**

IDOE #4002

Term: One Semester (S1)

Offered: 10th-12th grade

Prereq: Successful completion of Intro 2D/Adv 2D

Introduction to Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art production with creation of portfolio quality works, art history, and criticism. Students explore historical and cultural background and connections; analyze, interpret, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work.

**Drawing I and II**

IDOE #4060

Term: One Semester (S1)

Offered: 10th-12th grade

Prereq: Successful completion of Intro 2D/Adv 2D

Drawing is a course based on the Indiana Academic Standards for Visual Art. Students create drawings utilizing processes such as sketching, rendering, and perspective drawing and use a variety of media such as pencil, chalk, pastels, and pen and ink. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, and make informed judgments about artwork and the nature of art.

**Painting I or II**

IDOE #4064

Term: One Semester

Offered: 10th-12th grade (Sem 2)

Prereq: Successful completion of Intro 2D/Adv 2D

Painting is a course based on the Indiana Academic Standards for Visual Art. Students create abstract and realistic paintings, using a variety of materials such as mixed media, watercolor, oil, and acrylics as well as techniques used with these media. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, and make informed judgments about artwork and the nature of art.

**Ceramics**

IDOE #4040

Term: One Semester

Offered: 10th-12th grade

Prereq: Successful completion of Intro 2D/Adv 2D

Ceramics is a course based on the Indiana Academic Standards for Visual Art. Students create works of art in clay utilizing the processes of hand building, molds, wheel throwing, slip and glaze techniques, and the firing processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, and make informed judgments about artwork and the nature of art.

**AP 2D Art and Design**

IDOE #4050

Term: Year

Offered: 11th-12th grade

Prereq: Permission from Instructor

AP 2-D Design is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Program offers three studio art courses and portfolios: 2-Dimensional Design, 3-Dimensional Design, and Drawing. The AP Art portfolios are designed for students who are seriously interested in the practical experience of art. The portfolios correspond to most college foundation courses. Students submit portfolios for evaluation at the end of the school year. Students may choose to submit any or all of the Drawing, 2-Dimensional Design, or 3-Dimensional design portfolios. AP Art students create a portfolio of work to demonstrate the artistic skills and ideas they have developed, refined, and applied over the course of the year to produce visual compositions. The portfolio will have two sections: Sustained Investigation and Selected works.

**Theatre Arts****Theatre Arts**

IDOE # 4242

Term: One semester

Offered: 9th-12th grade

Prereq: none

Theatre Arts is based on the Indiana Academic Standards for Theatre. Students enrolled in Theatre Arts read and analyze plays, create scripts and theatre pieces, conceive scenic designs, and develop acting skills. These activities incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, send and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community

**Advanced Theatre Arts**

IDOE #4240

Term: One semester

Offered: 11th-12th grade

Prereq: Theatre Arts

Advanced Theatre Arts is based on the Indiana Academic Standards for Theatre. Students enrolled in Advanced Theatre Arts read and analyze plays and apply criteria to make informed judgments. They draw on events and experiences to create scripted monologues and scenes, create scenic designs for existing plays, and build characters through observation, improvisation and script analysis. These activities should incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore careers in theatre arts and begin to develop a portfolio of their work. They also send and critique theatre productions and identify ways to support the theatre in their community

## HEALTH & PHYSICAL EDUCATION

### **Health and Wellness Education**

IDOE #3506

Term: One Semester

Offered: 10th- 12th grade

Prereq: None

Health and Wellness, a course based on Indiana's Academic Standards for Health and Wellness and provides the basis to help students adopt and maintain healthy behaviors. Health education should contribute directly to a student's ability to successfully practice behaviors that protect and promote health and avoid or reduce health risks. Through a variety of instructional strategies, students practice the development of functional health information (essential concepts); determine personal values that support health behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. This course includes the application of priority areas in a planned, sequential, comprehensive health education curriculum. Priority areas include: promoting personal health and wellness, physical activity, and healthy eating; promoting safety and preventing unintentional injury and violence; promoting mental and emotional health, a tobacco-free lifestyle and an alcohol- and other drug-free lifestyle; and promoting human development and family health. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

### **Physical Education I & II**

IDOE #3506

Term: One Semester each

Offered: 9th- 12th grade

Prereq: None

***If a student receives 5 no dress/participation over the course of the semester they will automatically receive a withdrawal failure.***

Physical Education I include the emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This course will introduce the students to a variety of fitness and recreational activities. These activities will focus not only on health-related fitness training (ex: cardio respiratory endurance, muscular strength and endurance, flexibility, body composition, and aerobic exercises), but also lifetime recreation activities. Aquatics will also be included in this course. Testing will include both written and performance-based skill evaluations

Physical Education II strengthens a personal commitment to lifetime activity and fitness. Students will have the opportunity to achieve and maintain a health-enhancing level of fitness, as well as, increase their knowledge of fitness concepts, sports, and games. This course will review and integrate fitness concepts and activities learned in PE I with fitness and sports game concepts not yet covered. Aquatics will also be included in this course. Testing will include both written and performance-based skill evaluation.

**Physical Education I & II -Adaptive**

IDOE #3506

Term: One Semester each

Offered: 9th- 12th grade

Prereq: None

***If a student receives 5 no dress/participation over the course of the semester they will automatically receive a withdrawal failure.***

Physical Education I includes the emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This course will introduce the students to a variety of fitness and recreational activities. These activities will focus not only on health-related fitness training (ex: cardio respiratory endurance, muscular strength and endurance, flexibility, body composition, and aerobic exercises), but also lifetime recreation activities. Testing will include both written and performance-based skill evaluations. Physical Education II strengthens a personal commitment to lifetime activity and fitness. Students will have the opportunity to achieve and maintain a health-enhancing level of fitness, as well as, increase their knowledge of fitness concepts, sports, and games. This course will review and integrate fitness concepts and activities learned in PE I with fitness and sports game concepts not yet covered. Testing will include both written and performance-based skill evaluation.

**Elective PE: Strength & Conditioning**

IDOE #3560

Term: One Semester

Offered: 10th- 12th grade

Prereq: Successful completion of PE I &amp; II. The nature of this course allows for successive semesters

This course is designed to develop the physical condition of an individual through strenuous weight training and extensive running activities. The students will develop an understanding for the basic principles of conditioning through limited classroom instruction.

**Elective PE: Intro to Aquatics**

IDOE #3560

Term: One Semester (S1)

Offered: 10th- 12th grade

This course is designed to introduce students to swimming, water safety, and aquatic activities. This class gives the student a little bit of the following: water sports, water safety, lifeguarding, and swimming skill instruction. Students will be graded based upon participation and skill tests.

**Elective PE: Lifeguarding**

IDOE #3560

Term: One Semester (S2)

Offered: 10th- 12th grade

Prereq: Must be 15 by the end of the course

This course will teach aquatic awareness, American Red Cross lifeguarding skills with the First Aid and CPR for the professional rescuer.

Students will be given the opportunity to receive Red Cross Lifeguard certification, as well as First Aid and CPR for the Professional Rescuer. (Certification and equipment books, fanny pack, breathing barrier would require a Red Cross fee.)

## MATHEMATICS

### Algebra I

IDOE #2520

Term: Full Year

Offered: 9-12th grade

Prereq- none

Note: **Must pass first semester before the student can take second semester.**

Algebra I emphasizes mathematics as problem solving and an attempt is made to link the topics and techniques studied to real world applications. Algebra I includes a detailed study of the arithmetic of the real number system and its algebraic representation in polynomial form. Much of the course shall be concerned with solving linear equations and inequalities as well as systems of linear equations. A strong emphasis on the concept of function is begun in Algebra I and continued throughout the Department. Quadratic equations will also be introduced. A thorough introduction to data analysis and graphs of linear functions provides a solid foundation for further study in mathematics. When possible, students will be given an opportunity to use and learn about appropriate technological tools as an aid in graphing and analysis. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### Algebra I Lab

IDOE #2516

Term: Full Year

Offered: 9th grade

Pre-req: Must be taken concurrently with Algebra I. Teacher recommendation required.

Algebra 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 Enrichment 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 Enrichment combines standards from high school courses with foundational standards from the middle grades.

**Counts as a Mathematics Course for the General Diploma only or as an Elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas**

### Honors Geometry

IDOE #2532

Term: Full Year

Offered: 9th- 10th grade

Prereq: 8th grade Algebra with a B- or higher each semester OR A's in both semester of 9th grade Algebra

Honors Geometry differs from Geometry in a variety of ways. The amount of material covered, and therefore the rate at which students are expected to work, will be greater in the class. Various “excursions” in geometric ideas not normally covered in the Geometry course will also be presented to students here. Students electing Honors Geometry are generally expected to be motivated to succeed in an accelerated environment and to be capable of a high level of personal responsibility for their success.

Students electing Honors Geometry are generally expected to be motivated to succeed in an accelerated environment and to be capable of a high level of personal responsibility for their success. They will be required to maintain a grade of **B-** or higher at semester end to remain in the Honors course.

### **Geometry**

IDOE #2532

Term: Full Year

Offered: 9th-12th grade

Prereq: Successful completion of Algebra I

**Note: Must pass first semester before the student can take second semester.**

Geometry is the study of the properties, measurements and relationships of points, lines, angles, plane figures, surfaces and solids. Relationships studied include similarity and congruence. Geometry approaches the study from an historical and logical perspective centering on real-life applications. Algebraic relationships are integrated throughout the course in an attempt to keep the skills learned in Algebra I sharp and to show students the relationships between the two branches of mathematics. The study of Geometry is also an opportunity for students to study and develop an appreciation for a complete mathematical system of logical thought. Logic and learning to write a correct mathematical argument is studied and formal proofs are used in establishing the properties and relationships studied in Geometry.

### **Honors Algebra II**

IDOE #2522

Term: Full Year

Offered: 10th-12th grade

Prereq: Honors Geometry with a B- or higher each semester OR completion of Geometry with A/A- each semester

Honors Algebra II differs from Algebra II in a variety of ways. It provides advanced algebraic concepts through the study and applications of functions, “families of functions,” equations, inequalities, systems of equations and inequalities, polynomials, rational and radical equations, complex numbers, and sequences and series. The amount and depth of the material covered, and therefore the rate at which students are expected to work will be greater in class. More time will be devoted to conic sections and trigonometry. A graphing TI 83 or TI 84 calculator is required.

Students electing Honors Algebra II are generally expected to be motivated to succeed in an accelerated environment and to be capable of a high level of personal responsibility for their success. They will be required to maintain a grade of **B-** or higher at semester end to remain in the Honors course.

## **Algebra II**

IDOE #2522

Term: Full Year

Offered: 10th-12th grade

Prereq: Successful completion of Algebra I

**Note: Must pass first semester before the student can take second semester.**

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Algebra II is made up of seven strands: Complex Numbers and Expressions; Functions; Systems of Equations; Quadratic Equations and Functions; Exponential & Logarithmic Equations and Functions; Polynomial, Rational, and Other Equations and Functions; and Data Analysis, Statistics, and Probability. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **Algebra II CCR**

IDOE #2522

Term: Full Year

Offered: 11th-12th grade

Prereq: Successful completion of Algebra I

**Note: Must pass first semester before the student can take second semester.**

Algebra II CCR builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course will focus on fewer topics to allow more time for in-depth exploration.

## **Pre-Calculus: Algebra**

IDOE #2564

## **Pre-Calculus: Trigonometry**

IDOE #2566

Term: Full Year

Offered: 10th-12 grade

Prereq: Successful completion of Geometry and Algebra II

Following a review of algebraic skills and the concept of a function, these ideas shall be applied to the study of polynomial, rational, exponential, logarithmic, trigonometric, and quadratic functions and their relation to the conic sections. Heavy emphasis will be placed on graphing these functions and graphing calculators and computer tools will be used.

The study of trigonometry is a significant portion of this course, beginning with trigonometry concepts from the classic definition of triangle ratios to their understanding as circular functions. In addition to the properties of trigonometric functions and their graphs we will study trigonometric equations and identities, the Laws of Sines and Cosines, complex numbers and graphing with polar coordinates. Applications of these topics to various fields will be shown through problem solving discussions. Additional topics include matrices, determinants, linear systems, probability and statistics, and sequences and series as time permits. A graphing TI83 or TI84 calculator will be used.

The basic difference between this course and the weighted course will be rigor. The rigor will be more consistent with that of standard math courses, opposed to the higher level of rigor that exists in honors level courses.

### **Honors Pre-Calculus: Algebra CC**

IDOE #2564

### **Honors Pre-Calculus: Trigonometry CC**

IDOE #2566

Term: Full Year

Offered: 10th-12 grade

Prereq: Successful completion of Geometry and Algebra II with B- or higher. A graphing TI83 or TI84 calculator is required. **Dual Credit is available.**

Following a review of algebraic skills and the concept of a function, these ideas shall be applied to the study of polynomial, rational, exponential, logarithmic, trigonometric, and quadratic functions and their relation to the conic sections. Heavy emphasis will be placed on graphing these functions and graphing calculators and computer tools will be used.

The study of trigonometry is a significant portion of this course, beginning with trigonometry concepts from the classic definition of triangle ratios to their understanding as circular functions. In addition to the properties of trigonometric functions and their graphs we will study trigonometric equations and identities, the Laws of Sines and Cosines, complex numbers, and graphing with polar coordinates. Applications of these topics to various fields will be shown through problem solving discussions and explorations. Additional topics include matrices, determinants, linear systems, probability and statistics, and sequences and series as time permits.

Students electing Dual Credit Pre-Calculus are generally expected to be motivated to succeed in an accelerated environment and to be capable of a high level of personal responsibility for their success. This is a college level class that moves as a college level pace.

### **Finite Mathematics**

IDOE #2530

Term: Full Year

Offered: 12th grade

Prereq: Honors Pre-Calculus/Trigonometry with a C- or higher. **Dual Credit is available.**

Finite Mathematics is a collection of mathematical topics, frequently used in business or public policy contexts. It is a course designed for students who will undertake higher-level mathematics in college that may not include calculus. Finite Math is made up of five strands: Sets; Matrices; Networks; Optimization; and Probability. The skills listed in these strands indicate what students should know and be able to do in Finite Math. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that

makes use of their ability to make sense of problem situations.

### **Honors Calculus**

IDOE #2527

Term: Full Year

Offered: 12th grade

Prereq: Honors Pre-Calculus/Trigonometry with a C- or higher. **Dual Credit is available.**

Calculus expands a student's knowledge of topics like functions, graphs, limits, derivatives, and integrals. Additionally, students will review algebra and functions, modeling, trigonometry, etc. Calculus is made up of five strands: Limits and Continuity; Differentiation; Applications of Derivatives; Integrals; and Applications of Integrals. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. A graphing TI83 or TI84 calculator is required.

## **SCIENCE**

### **Earth and Space Science**

IDOE #3044

Term: Full Year

Offered: 9th-12th grade

Prereq: None

Earth and Space Science I is a course focused on the following scientific studies of core topics: study of the earth's layers; earth's lithosphere, atmosphere, hydro- sphere, celestial environment atmosphere and hydrosphere, structure and scale of the universe; the solar system and earth processes. Students analyze and describe Earth's interconnected systems and examine how Earth's materials, landforms, and continents are modified across geological time. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures. Students have opportunities to gain on understanding of the history of the development of the earth and space sciences, to explore the uses of knowledge of the earth and its environments in various careers, and to cope with the problems related to personal needs and social issues.

### **Biology I**

IDOE #3024

Term: Full Year

Offered: 9th grade

Prereq:

Biology I is a course based on the following core topics: cellular chemistry, structure and reproduction; matter cycles and energy transfer; interdependence of organisms; molecular basis of heredity; genetics and evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and

experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

### **Integrated Chemistry/Physics**

IDOE #3108

Term: Full Year

Offered: 9<sup>th</sup>-12<sup>th</sup> grade

Prereq: Algebra I (may be taken concurrently with this course if in grades 10<sup>th</sup>-12<sup>th</sup>)

Integrated Chemistry-Physics is a lab-based course where students investigate the basics of chemistry and physics in solving real-world problems that may have personal or social consequences beyond classroom. Core topics are: motion and interaction between energy and matter, energy of macroscopic objects; chemical and physical principles, chemical reactions, force, electrical, mechanical and nuclear energy; properties of matter; transport of energy; magnetism; energy production and its relationship to the environment and economy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

### **Chemistry**

IDOE #3064

Term: Full Year

Offered: 9<sup>th</sup>-12<sup>th</sup> grade

Prereq: 8th grade Algebra with B or higher if taken as a 9th grader. 10th-12th grade: C or better in Algebra 1.

Chemistry I is a course based on the following core topics: properties and states of matter; atomic structure; bonding; chemical reactions; solution chemistry; behavior of gases, and organic chemistry. Students enrolled in Chemistry I compare, contrast, and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures. Students have opportunities to: (1) gain an understanding of the history of chemistry, (2) explore the uses of chemistry in various careers, (3) cope with chemical questions and problems related to personal needs and social issues, and (4) learn and practice laboratory safety.

### **Principles of Biomedical Science**

IDOE #5218

Term: Full Year

Offered: 10th-12th grade

Prereq: Biology I with C or higher, or teacher's approval

In Principles of Biomedical Science, students explore concepts of biology and medicine as they take on roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, to tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems.

**Honors Biology II:Adv Sci CC**

IDOE #3090

Term: Full Year

Offered: 11th -12th grade

Prereq: Biology and Chemistry. **Dual Credit is available**

Biology II is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences. A course that builds on the Indiana's Academic Standards for Biology 1. Labs include dissections of rats, sheep heart, cow eye, and sheep brain.

**Honors Anatomy & Physiology**

IDOE #5276

Term: Full Year

Offered: 11th-12th grade

Prereq: Biology and Chemistry. **Dual Credit is available**

Anatomy & Physiology is a course in which students investigate and apply concepts associated with human anatomy and physiology. Through instruction, including laboratory activities which include dissection of a cat, sheep brain, cow eye, and sheep heart, students apply the concepts of human function at the level of genes, cells, tissues, and organ systems. Students will understand the structure, organization, and function of the various components of the healthy human body in order to apply this knowledge in all health-related fields.

**Honors Physics**

IDOE #3084

Term: Full Year

Offered: 11th-12 grade

Prereq: Successful completion of Geometry, Algebra 2. Chemistry with a C- or higher each semester or teacher's approval.

Physics I is a course focused on the following core topics: motion and forces; energy and momentum; temperature and thermal energy transfer; electricity and magnetism; vibrations and wave motion, light and optics. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures. Students apply concepts in physics towards projects, such as mousetrap cars, instruments, structures and machines.

**AP Chemistry**

IDOE #3024

Term: Full Year

Offered: 11th-12th grade

Prereq: Chemistry I with a B- or better each semester or teacher's approval. Taking the AP exam at the end of the year is a requirement.

AP Chemistry follows College Board entrance examination guidelines for AP Chemistry.

Chemistry, Advanced Placement is a course based on the content established by the College Board. The content includes: (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of matter: gases, liquids and solids, solutions; and (3) reactions: reaction types, stoichiometry, equilibrium, kinetics and thermodynamics. AP Chemistry students complete advanced laboratory exercises and experiments. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

## **SOCIAL STUDIES**

### **World History and Civilization**

IDOE #1548

Term: Full Year

Offered: 9th-12th grade

Prereq: None

World History and Civilization is a survey of ancient and modern world history. The primary focus is on the development of western civilizations. The first semester traces the origins of human civilization, beginning with the ancient Egyptians and Mesopotamians, and follows the development of civilization through the Greeks and the Romans. The semester ends with a detailed look at the rise of medieval Europe. The second semester begins with a survey of medieval Europe and traces the development of the Renaissance and the Reformation. The Age of Revolution is explored with primary emphasis on the French and Industrial Revolutions. The semester ends with a survey of the major historical events of the 20th Century.

Note-First semester World History is not a prerequisite for second semester World History enrollment

### **United States History**

IDOE #1542

Term: Full Year

Offered: 11th-12th grade

Prereq: None

U.S. History is a two-semester course that emphasizes national development in the late 18th through the 19th century and the 20th century, and builds upon concepts developed in previous studies of American history. The course gives major emphasis to the interaction of historical events and geographic, social, political, and economic influences on national development.

### **Honors United States History**

IDOE #1542

Term: Full Year

Offered: 11th -12th grade

Prereq: Must have completed both semesters of World History

**Dual credit is available**

U.S History emphasizes national development in the late 19th century and the 20th century, and builds upon concepts developed in previous studies of American History. The course gives

major emphasis to the interaction of historical events and geographical, social, political, and economic influence on national development.

DUAL CREDIT FOR STUDENTS TAKING HONORS US HISTORY  
IN ORDER TO TAKE DUAL CREDIT DURING THE SCHOOL YEAR STUDENTS MUST MEET THE FOLLOWING REQUIREMENTS:

1. Be enrolled in the course
2. Meet the university requirements for admittance into the dual credit program.
3. Complete and submit all university required paperwork and fees.

### **United States Government**

IDOE #1540

Term: One semester

Offered: 12th grade

Prereq: None

This course provides a framework for understanding the purposes, principles and practices of American government as established by the U.S. Constitution. Students are expected to understand their rights and responsibilities as citizens and how to exercise these rights and responsibilities in local, state and national government responsibly. Specifically, students will be able to identify and discuss ideas relating to the following Indiana Academic Standards for Social Studies for Government: The Nature of Citizenship, Politics and Government, Foundations of Government and the U.S., Purposes, Principles, and Institutions of Government in the U.S., The Relationship of the U.S. to Other Nations in World Affairs, and Roles of Citizens in the U.S.

### **Honors US Government**

IDOE #1570

Term: One semester

Offered: 12th grade

Prereq: Must have completed both semesters of US History

**Dual credit is available.**

United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments and understand the rights and responsibilities of citizens and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. How the United States interacts with other nations and the government's role in world affairs will be included. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will be able to explain the role of individuals and groups in government, politics, and civic activities and the need for civic and political engagement of citizens in the United States.

DUAL CREDIT FOR STUDENTS TAKING GOVERNMENT

IN ORDER TO TAKE GOVERNMENT FOR DUAL CREDIT DURING THE SCHOOL YEAR STUDENTS MUST MEET THE FOLLOWING REQUIREMENTS:

1. Be enrolled in government
2. Meet the university requirements for admittance into the dual credit program.

3. Complete and submit all university required paperwork and fees.

**Economics**

IDOE #1514

Term: One Semester

Offered: 12th grade

Prereq: None

This course examines the allocation of scarce resources and the economic reasoning used by people as consumers, producers, savers, investors, workers, voters, and as government agencies. Key elements include the study of scarcity, supply and demand, market structures, the role of government, national income determination, money and the role of financial institutions, economic stabilization, and trade. Specifically, students will be able to identify and discuss ideas relating to the Indiana Academic Standards for Social Studies for Economics.

**Psychology**

IDOE #1532

Term: One semester or two semesters

Offered: 11th-12th grade

Prereq: None

Psychology first semester will emphasize the methodology of psychology and the developmental processes associated with human behavior and thought. Various theories of personality development will be explored and analyzed. Psychology second semester will emphasize the emotional aspects of human behavior, with primary attention given to the development and treatment of psychological disorders. Various theories on learning and memory will also be analyzed. Note-First semester Psychology is not a prerequisite for second semester Psychology enrollment

**Ethnic Studies**

IDOE #1516

Term: One Semester

Offered: 9th-12th grade

Prereq: None

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 and current events in the United States.

**Indiana Studies**

IDOE #1518

Term: One Semester

Offered: 9th-12th grade

Prereq: None

Indiana studies is an integrated program comparing and contrasting state and national development in the areas of politics, economics, history, and culture. The course uses history as a basis for understanding Indiana's diverse culture, current policies, practices, and customs. The course also examines the various roles of government in the state of Indiana. Examining the state and local governments will allow the student to realize the functions and organization

of state, county, city, town and township governmental units. A primary focus of the course will be examining the local community history and government, integrating resources from the community and surrounding area to help infuse citizenship, pride and appreciation for Starke County and the Knox Community.

## **WORLD LANGUAGE**

### **Spanish I**

IDOE #2120

Term: Full Year

Offered: 9th-12th grade

Prereq: Complete 8<sup>th</sup> Grade English with a C or higher if taking during 9<sup>th</sup> grade.

Spanish I is a course based on Indiana's Academic Standards for World Languages and introduces students to effective strategies for beginning Spanish language learning, as well as various aspects of Spanish-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine various aspects of culture, such as food, products, and perspectives of various Spanish-speaking countries. This course further emphasizes making connections across many content areas, including geography, English, and history to understand the application of Spanish language and culture outside of the classroom.

### **Spanish II**

IDOE #2122

Term: Full Year

Offered: 10th-12th grade

Prereq: Complete both semesters of Spanish 1 with a grade of C or higher

Spanish II is a college prep level course and is based on Indiana's Academic Standards for World Languages. It builds upon effective strategies for Spanish language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Spanish-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

### **Spanish III**

IDOE #2124

Term: Full Year

Offered: 11th- 12th grade

Prereq: Complete both semesters of Spanish 2 with a grade of C or higher.

**Dual Credit is available.**

Spanish III is a college level, dual credit course and it is based on Indiana's Academic Standards for World Languages. It builds upon effective strategies for Spanish language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Spanish-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Spanish language and culture outside of the classroom. Specific information regarding how to take the course for college credit will be provided by the instructor the first week of class.

### **Spanish IV**

IDOE #2126

Term: Full Year

Offered: 12th grade

Prereq: Complete both semesters of Spanish 3 with a grade of C or higher

**Dual Credit is available.**

Spanish IV is a college level, dual credit course and it is based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop an understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Spanish speakers. Specific information regarding how to take the course for college credit will be provided by the instructor the first week of class.

## MULTIDISCIPLINARY COURSES

### **Basic Skills Development**

IDOE #0500

Term: Full Year

Offered: 9th-12th grade

Prereq: None

Basic Skills Development is a multidisciplinary course that provides students continuing opportunities to develop basic skills including: (1) reading, (2) writing, (3) listening, (4) speaking, (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem-solving skills, which are essential for high school course work achievement.

Determination of the skills to be emphasized in this course is based on Indiana's standards, individual school corporation general curriculum plans, and the student's Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of different life situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester up to 8 semesters, 8 credits maximum
- Counts as an elective for all diplomas

### **Study Hall**

Term: Year or Semester

Offered: 9th-12th grade

Prereq: None

The benefits of a study hall include providing students with a structured and scheduled time to focus on academic work while giving support needed to complete homework or prepare for exams. These study hall opportunities may then help students to improve grades and academic performance. Students will not be allowed to sleep during class or play on their phones.

### **Jobs for America's Graduates (JAG)**

IDOE #0509

Term: Full Year

Offered: 11th-12th grade

Prereq: None

Jobs for America's Graduates (JAG) is a state-based, national non-profit organization dedicated to preventing dropouts among young people who are most at-risk. JAG's mission is to keep young people in school through graduation and provide work-based learning experiences that will lead to career advancement opportunities or to enroll in a postsecondary institution that leads to a rewarding career. JAG students receive adult mentoring while in school and one year of follow-up counseling after graduation. The JAG program is funded through grants provided by the Indiana Department of Workforce Development.

# **CAREER AND TECHNICAL EDUCATION (CTE) COURSES**

State of Indiana Department of Education Career Guide for CTE can be found here:

<http://www.flipcareerguide.com/books/rgoz/#p=1>

**\*\*CTE courses may have additional Course fees and supplies required\*\***

## **Introduction to Computer Science**

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. Additionally, there is a focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/robotics.

## **Career Cluster: Advanced Manufacturing**

<b>Precision Machining (Plymouth)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7109	Principles of Precision Machining	7105	Precision Machining Fundamentals	7101	Advanced Precision Machining	7219	Precision Machining Capstone

### **Precision Machining: Year 1**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 11th-12th grade

Location: Plymouth HS

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

Principles of Precision Machining will provide students with a basic understanding of the processes used to produce industrial goods. Classroom instruction and labs will focus on shop safety, measurement, layout, blueprint reading, shop math, metallurgy, basic hand tools, milling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Measurement, Materials, & Safety certification that may be required for college dual credit.

Precision Machining Fundamentals will build a foundation in conventional milling and turning. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations. Lab work will consist of the setup and operation of vertical and/or horizontal milling machines and engine lathes. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Milling I certification that may be required for college dual credit

Advanced Precision Machining will build upon the Turning and Milling processes learned in Precision Machining Fundamentals and will build a foundation in abrasive process machines. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations associated with abrasives. Lab work will consist of the setup and operation of bench grinders and surface grinders. Additionally, students will be introduced to Computerized Numeric Controlled (CNC) setup, operations and programming. This course

prepares the student for the optional National Institute for Metalworking Skills (NIMS) Grinding I certification that may be required for college dual credit.

### **Precision Machining: Year 2**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 12th grade

Location: Plymouth HS

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

Precision Machining Capstone is an in-depth study of skills learned in Precision Machining I, with a stronger focus on CNC setup/operation/programming. Students will be introduced to two axis CNC lathe programming and three axis CNC milling machine programming. Develops the theory of programming in the classroom with applications of the program accomplished on industry-type machines. Studies terminology of coordinates, cutter paths, angle cutting, and linear and circular interpolation. Classroom activities will concentrate on precision set-up and inspection work, as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be presented.

<b>Welding Technology (KHS)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7110	Principles of Welding Technology	7111	Shielded Metal Arc Welding	7101	Gas Welding Processes	7226	Welding Technology Capstone

### **Welding Technology: Year 1**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 11th-12th grade

**Online Application is required. Dual Credit is available.**

Principles of Welding Technology includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and basic welding. This course is designed for individuals who intend to make a career as a Welder, Technician, Designer, Researcher, or Engineer. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for postsecondary and career success

Shielded Metal Arc Welding involves the theory and application of the Shielded Metal Arc Welding process. Process theory will include basic electricity, power sources, electrode selection, and all aspects pertaining to equipment operation and maintenance. Laboratory welds will be performed in basic weld joints with a variety of electrodes in the flat, horizontal and vertical positions. Emphasis will be placed on developing the basic skills necessary to comply with AWS industry standards.

Gas Welding Processes is designed to cover the operation of Gas Metal Arc Welding (MIG) equipment. This will include all settings, adjustments and maintenance needed to weld with a wire feed system. Instruction on both short-arc and spray-arc transfer methods will be covered.

Tee, lap, and open groove joints will be done in all positions with solid, fluxcore, and aluminum wire. Test plates will be made for progress evaluation. Schools may choose to offer the course as a comprehensive MIG Welding course or a combination of introductory MIG and TIG Welding operations.

### **Welding Technology: Year 2**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Welding Technology: Year 1

**Online Application is required. Dual Credit is available.**

Welding Technology Capstone course builds upon the knowledge and skills developed in Welding Fundamentals, Shielded Metal Arc Welding, and Gas Metal Arc Welding by developing advanced welding skills in Gas Tungsten Arc Welding (TIG), Pipe Welding, and Fabrication. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

## **Career Cluster: Agriculture**

<b>Agri-Science- Animals (KHS)</b>					
<b>Year 1 (9-12th grade)</b>		<b>Year 2 (10-12th grade)</b>		<b>Year 3 (11th-12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>	
7117	Principles of Agriculture	5008	Animal Science	5070	Advanced Life Sci: Animals

### **Principles of Agriculture**

IDOE #7117

Term: Full Year

Offered: 9th-12th grade

**Dual Credit is available.**

Principles of Agriculture is a two-semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding and the role of agriculture in the United States and globally. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, as well as careers.

### **Animal Science**

IDOE #5008

Term: Full Year

Offered: 10th-12th grade

Prereq: Principles of Ag Preferred

**Dual Credit is available.**

**Fulfills a Science requirement for all diplomas**

Animal Science is a two semester course that provides students with an overview of the animal agriculture industry. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the

students study may be applied to both large and small animals. Topics to be covered in the course include: history and trends in animal agriculture, laws and practices relating to animal agriculture, comparative anatomy and physiology of animals, biosecurity threats and interventions relating to animal and human safety, nutrition, reproduction, careers, leadership, and supervised agricultural experiences relating to animal agriculture

### **Advanced Life Science, Animals**

IDOE #5070

Term: Full Year

Offered: 11th-12th grade

Prereq: Principles of Ag, Animal Science

**Dual Credit is available.**

**Fulfills a Science requirement for all diplomas**

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

<b>Horticulture Science and Landscaping (KHS)</b>					
<b>Year 1 (9-12th grade)</b>		<b>Year 2 (10-12th grade)</b>		<b>Year 3 (11th-12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>	
7117	Principles of Agriculture	5132	Horticultural Science	7115	Landscape and Turf Management

### **Horticulture Science**

IDOE #5132

Term: Full Year

Offered: 10th-12th grade

Prereq: Principles of Ag

Horticulture Science is a two semester course that provides students with a background in the field of horticulture. Coursework includes hands-on activities that encourage students to investigate areas of horticulture as it relates to the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Students are introduced to the following areas of horticulture science: reproduction and propagation of plants, plant growth, growth-media, management practices for field and greenhouse production, marketing concepts, production of plants of local interest, greenhouse management, floral design, and pest management. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

**Landscape and Turf Management**

IDOE #7115

Term: Full Year

Offered: 11th-12th grade

Prereq: Hort Sci

Landscape and Turf Management is a two-semester course that provides the student with an overview of the many career opportunities in the diverse field of landscape and turf management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, and management skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

<b>Veterinary Science (KHS)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7280	Principles of Veterinary Science	7281	Veterinary Science	5070	Adv Life Science, Animals	7282	Veterinary Science Capstone

**Principles of Veterinary Science**

IDOE #7280

Term: Full Year

Offered: 11th-12th grade

Prereq: Chemistry. Preferred: Principles of Ag

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

**Veterinary Science**

IDOE #7281

Term: Full Year

Offered: 11th-12th grade

Prereq: Principles of Ag

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

**Advanced Life Science, Animals**

IDOE #5070

Term: Full Year

Offered: 11th-12th grade

Prereq: Principles of Ag, Animal Science  
**Dual Credit is available.**  
**Fulfills a Science requirement for all diplomas**

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

### **Career Cluster: Architecture and Construction**

<b>Construction Trades- Carpentry (Culver)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7130	Principles of Construction Trades	7123	Construction Trades: General Carpentry	7122	Construction Trades: Framing and Finishing	7242	Construction Trades Capstone

#### **Construction Trades- Carpentry: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade

Location: Culver Community High School

**Online Application is required. Students are responsible for their own transportation.**

Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic safety. Additionally, students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.

Construction Trades: General Carpentry builds upon the skills learned in the Principles of Construction Trades and examines the basics of framing. This includes studying the procedures for laying out and constructing floor systems, wall systems, ceiling joist and roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.

Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. Topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.

#### **Construction Trades- Carpentry: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Construction Trades- Carpentry: Year 1

Location: Culver Community High School

**Online Application is required. Students are responsible for their own transportation.**

### **Career Cluster- Arts, AV Tech, and Communication**

<b>Digital Design- Graphics (KHS)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7140	Principles of Digital Design	7141	Digital Design Graphics	5550	Graphic Design and Layout	7246	Digital Design Capstone: Production

*\*\*KHS students may take one class each year of Principles, Concentrator A, and Concentrator B or as a 3 hour block. \*\**

#### **Principles of Digital Design**

IDOE #7140

Term: Full Year

Offered: 9th-12th grade

**Dual Credit is available.**

Principles of Digital Design introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.

#### **Digital Design Graphics**

IDOE #7140

Term: Full Year

Offered: 10th-12th grade

Prereq: Principles of Digital Design

**Dual Credit is available.**

Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices

#### **Graphic Design & Layout**

IDOE #5550

Term: Full Year

Offered: 11th-12th grade

Prerequisite – Principles of Digital Design and Digital Design Graphics

**Dual Credit is available**

Graphic Design and Layout teaches design process and the proper and creative use of type as a means to develop effective communications for global, corporate and social application. Students will create samples for a portfolio, which may include elements or comprehensive projects in logo, stationery, posters, newspaper, magazine, billboard, and interface design.

### **Digital Design Capstone- Production**

IDOE #7246

Term: 1 or 2 semesters, 1-3 periods per semester

Offered: 11th-12th grade

Preferred - Two consecutive period

The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual. This includes live jobs and various hands on projects.

## **Career Cluster- Business, Management and Administration**

<b>Business Administration (KHS)</b>					
<b>Year 1 (9-12th grade)</b>		<b>Year 2 (10-12th grade)</b>		<b>Year 3 (11th-12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>	
4562	Principles of Business Management	7143	Management Fundamentals	4524	Accounting Fundamentals

### **Principles of Business Management**

IDOE #4562

Term: Full Year

Offered: 9th-10th grade

**Dual Credit is available.**

Principles of Business Management examines business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of business enterprises. This course will also emphasize the identification and practice of the appropriate use of technology to communicate and solve business problems and aid in decision making. Attention will be given to developing business communication, problem-solving, and decision-making skills using spreadsheets, word processing, data management, and presentation software

### **Management Fundamentals**

IDOE #7143

Term: Full Year  
Offered: 10th-12th grade  
Prereq: Principles of Business Management

Management Fundamentals describes the functions of managers, including the management of activities and personnel. Describes the judicial system and the nature and sources of law affecting business. Studies contracts, sales contracts with emphasis on Uniform Commercial Code Applications, remedies for breach of contract and tort liabilities. Examines legal aspects of property ownership, structures of business ownership, and agency relationships

### **Accounting Fundamentals**

IDOE #4524

Term: Full Year  
Offered: 11th-12th grade  
Prereq: Principles of Business Management, Marketing Fundamentals

Accounting Fundamentals introduces the language of business using Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making.

## **Career Cluster: Education and Training**

<b>Early Childhood (KHS- KCES or Head Start)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7160	Principles of Early Childhood Education	7158	Early Childhood Education Curriculum	7159	Early Childhood Education Guidance	7259	Early Childhood Capstone

### **Early Childhood Education: Year 1**

Term: Full Year- 3 hours per semester- 6 total credits  
Offered: 11th-12th grade  
**Dual Credit is available.**

Principles of Early Childhood Education provides students with an overview of skills and strategies necessary to successfully complete a certificate. Additionally, it provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula and services available to young children. This course also examines basic principles of child development, Developmentally Appropriate Practices (DAP), importance of family, licensing, and elements of quality care of young children with an emphasis on the learning environment related to health, safety, and nutrition. Students may be required to complete observations and field experiences with children as related to this course  
Early Childhood Education Curriculum examines developmentally appropriate environments and activities in various childcare settings while exploring the varying developmental levels and

cultural backgrounds of children. Students may be required to complete observations and field experiences with children as related to this course.

Early Childhood Education Guidance allows students to analyze developmentally appropriate guidance, theory and implementation for various early care and education settings. It also provides a basic understanding of the anti-bias/multicultural emphasis in the field of early childhood. Students may be required to complete observations and field experiences with children as related to this course.

### **Early Childhood Education: Year 2**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Early Childhood Education: Year 1

**Dual Credit is available.**

Early Childhood Capstone will prepare students to complete the application, CDA exam, and verification process for the Child Development Associate (CDA) credential. Students will participate in supervised visits at their practical work/volunteer sites as the college instructor fulfills the role of the Professional Development Specialist, as outlined by the Council for Professional Recognition. Students will study the physical, social, emotional, cognitive, and moral development of children from conception to age twelve. Theories of child development, biological and environmental foundations, prenatal development, the birth process, and the newborn baby will be discussed. Additionally, students will explore the aspects of early literacy skill development in young children from birth through third grade. Analyzes the vital role adults play in supporting children's language arts development. The course identifies age appropriate practices and materials provided in the learning environment that support meaningful speech, listening skills and fundamental concept development about print. Students will explore techniques, technological tools and other learning opportunities that encourage positive attitudes in children regarding listening, speaking, reading and writing activities. In the course, students will research, examine and explore the use of observation in screening and assessment to promote healthy literacy development in early childhood education. Finally, students will be introduced caring for each exceptional child. This includes theories and practices for producing optimal developmental growth. Students will be able to develop teaching techniques and explores public policy including legislative mandates and will explore the types of special needs and provides methods for assistance. Students may be required to complete observations and field experiences with children as related to this course. Complete the standards in the domains correlated to the dual credit being offered and the dual credit arrangements.

Education Careers (KHS)					
Year 1 (9-12th grade)		Year 2 (10-12th grade)		Year 3 (11th-12th grade)	
Principles		Concentrator A		Concentrator B	
7161	Principles of Teaching	7157	Child and Adolescent Development	7162	Teaching and Learning

**Principles of Teaching**

IDOE #7161

Term: Full Year

Offered: 9th-12th grade

This course provides a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations as well as requirements for teacher certification. Current trends and issues in education will be examined. A volunteer experience of a minimum of 20 hours is required for successful completion of this course.

**Child and Adolescent Development**

IDOE #7157

Term: Full Year

Offered: 10th-12th grade

Child and Adolescent Development examines the physical, social, emotional, cognitive, and moral development of the child from birth through adolescence with a focus on the middle years through adolescence. Basic theories of child development, biological and environmental foundations of development, and the study of children through observation and interviewing techniques are explored. The influence of parents, peers, the school environment, culture and the media are discussed. An observation experience up to 20 hours may be required for completion of this course.

**Teaching and Learning**

IDOE #7162

Term: Full Year

Offered: 11th-12th grade

Teaching and Learning provides students the opportunity to apply many of the concepts that they have learned throughout the Education Professions pathway. In addition to a focus on best practices, this course will introduce the role that technology plays in the modern classroom. Through hands-on experience with educational software, utility packages, and commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

**Career Cluster: Health Sciences**

Emergency Medical Services							
Year 1 (11th or 12th grade)						Year 2 (12th grade)	
Principles		Concentrator A		Concentrator B		Pathway Capstone	
7168	Principles of Healthcare	5274	Medical Terminology	7165	Emergency Medical Tech	7255	Healthcare Specialist Capstone

### **Emergency Medical Services: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade

**Online Application is required. Students are responsible for their own transportation.**

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

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

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

### **Emergency Medical Services: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Emergency Medical Services: Year 1

**Online Application is required. Students are responsible for their own transportation.**

Healthcare Specialist Capstone will provide Healthcare students acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Students are highly encouraged to pursue additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy.

Pre-Nursing/Healthcare Specialist (CNA) (KHS)									
Year 1 (11th or 12th grade)						Year 2 (12th grade)			
Principles		Concentrator A		Tech Skills		Concentrator B		Pathway Capstone	
7168	Principles of Healthcare	5274	Medical Terminology	7156	Technical Skills Development	7166	Healthcare Specialist: CNA	7255	Healthcare Specialist Capstone

### **Pre-Nursing/Healthcare Specialist CNA: Year 1**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 11<sup>th</sup> grade

**Vocational application is required.**

**Dual Credit is available Students are responsible for their own transportation.**

***Successful completion of Biology, Chemistry, Algebra 1 and II are recommended.***

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

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

Technical Skills Development The Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course

### **Pre-Nursing/Healthcare Specialist CNA: Year 2**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 12th grade

Pre-req: Pre-Nursing/Healthcare Specialist CNA: Year 1

**Vocational application is required.**

**Dual Credit is available Students are responsible for their own transportation.**

***Successful completion of Biology, Chemistry, Algebra 1 and II are recommended.***

Healthcare Specialist: CNA prepares individuals desiring to work as nursing assistants with the knowledge, skills and attitudes essential for providing basic care in extended care facilities,

hospitals and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant training and for health care workers in long-term care facilities

Healthcare Specialist Capstone course will provide Healthcare students acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Students are highly encouraged to pursue additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy

### **Career Cluster: Hospitality and Tourism**

<b>Culinary Arts (KHS)</b>							
<b>Year 1 (10th - 12th grade)</b>						<b>Year 2 (11 or 12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7173	Principles of Culinary and Hospitality	7171	Nutrition	7169	Culinary Arts	7233	Culinary Capstone

#### **Culinary Arts: Year 1**

Term: Full Year- 3 hours per semester- 6 total credits

Offered: 10th-12th grade

**Vocational application is required. Dual Credit is available**

Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment

Nutrition students will learn the characteristics, functions and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will be made aware of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation. This course will engage students in hands-on learning of nutritional concepts such as preparing nutrient dense meals or examining nutritional needs of student athletes

Culinary Arts teaches students how to prepare the four major stocks, the five mother sauces (in addition to smaller sauces) and various soups. Additional emphasis is placed on the further development of the classical cooking methods. This course will also present the fundamentals of baking science including terminology, ingredients, weights and measures, and proper use and care of equipment. Students will produce yeast goods, pies, cakes, cookies, and quick breads

## **Culinary Arts: Year 2**

Term: Full Year - 3 hours per semester- 6 total credits

Offered: 11-12th grade

**Vocational application is required. Dual Credit is available**

Culinary Arts Capstone covers the techniques and skills needed in breakfast cookery as well as insight into the pantry department. Various methods of preparation of eggs, pancakes, waffles and cereals will be discussed. Students will receive instruction in salad preparation, salad dressing, hot and cold sandwich preparation, garnishes and appetizers. This course also covers the necessary skills for proper recruiting, staffing, training, and management of employees at various levels. The course will help prepare the student for the transition from employee to supervisor. Additionally, it will help the student evaluate styles of leadership, and develop skills in human relations and personnel management.

## **Career Cluster: Human Services**

### **Cosmetology (Knox Beauty College)**

Year 1 (11th or 12th grade)						Year 2 (12th grade)			
Principles		Concentrator A		Tech Skills		Concentrator B		Pathway Capstone	
7330	Principles of Barbering and Cosmetology	7331	Barbering and Cosmetology Fundamentals	7156	Technical Skills Development	7332	Advanced Cosmetology	7334	Barbering and Cosmetology Capstone

**\*\* Instruction is designed to qualify pupils for the licensing examination with the State Board of Cosmetology. The course is a two-year course, 750 class hours per year, at four hours per day for 187.5 instructional days per year. This means a total of 1500 class hours, at four hours per day. Students must make up missed days. In scheduling, please note that the students will need to attend classes for a longer school day and for more days in the school year. The school pays tuition for each student; the student is responsible for purchase of books and the equipment, at a probable cost of \$320, which then becomes the property of the student. The student is also responsible for transportation. \*\***

## **Cosmetology: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade

Location: Knox Beauty College

**Online Application is required. Students are responsible for their own transportation.**

**Students must pass a pre-admissions test.**

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

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

Technical Skills Development Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course

### **Cosmetology: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Cosmetology Year 1

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

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

## **Career Cluster: Information Technology**

<b>Cybersecurity (KHS)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7183	Principles of Computing	7179	Cybersecurity Fundamentals	7178	Advanced Cybersecurity	7243	Cybersecurity Capstone

Principles of Computing provides students the opportunity to explore how computers can be used in a wide variety of settings. The course will begin by exploring trends of computing and the necessary skills to implement information systems. Topics include operating systems, database technology, cybersecurity, cloud implementations and other concepts associated with applying the principles of good information management to the organization. Students will also have the opportunity to utilize basic programming skills to develop scripts designed to solve problems. Students will learn about algorithms, logic development and flowcharting.

Cybersecurity Fundamentals This course introduces fundamental networking protocols and their hierarchical relationship in the context of conceptual Information Communication Technology (ICT) frameworks. Students will learn how networked hosts and applications communicate across networks. Emphasis is placed on security throughout the entire SDLC (Systems Development Life Cycle).

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

### **Career Cluster Law and Public Safety**

<b>Criminal Justice (KHS)</b>							
<b>Year 1 (11<sup>th</sup> or 12<sup>th</sup> grade)</b>						<b>Year 2 (12<sup>th</sup> grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7193	Principles of Criminal Justice	7191	Law Enforcement Fundamentals	7188	Corrections and Cultural Awareness	7231	Criminal Justice Capstone

#### **Criminal Justice: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits PM

Offered: 11<sup>th</sup>-12<sup>th</sup> grade

**Online Application is required. Dual Credit is available.**

Principles of Criminal Justice covers the purposes, functions, and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections. This course further explores the interrelationships and responsibilities of these three primary elements of the criminal justice system. It will critically examine the history and nature of the major theoretical perspectives in criminology, and the theories found within those perspectives. Analyzes the research support for such theories and perspectives, and the connections between theory and criminal justice system practice within all the major components of the criminal justice system. Demonstrates the application of specific theories to explain violent and non-violent criminal behavior on both the micro and macro levels of analysis

Law Enforcement and Cultural Awareness introduces fundamental law enforcement operations and organization. Includes the evolution of law enforcement at federal, state, and local levels. Emphasizes the study of American criminal justice problems and systems in historical and cultural perspectives, as well as discussing social and public policy factors affecting crime.

Corrections and Cultural Awareness introduces topics related to the adjudication process in criminal cases, including arraignments and preliminary hearings, suppression hearings, trials, sentencing, juvenile court, and probation and parole. Reviews the role of criminal justice personnel in court processes. This course also examines the American correctional system; the study of administration of local, state, and federal correctional agencies. The examination includes the history and development of correctional policies and practices, criminal sentencing, jails, prisons, alternative sentencing, prisoner rights, rehabilitation, and community corrections including probation and parole. Current philosophies of corrections and the debates surrounding the roles and effectiveness of criminal sentences, institutional procedures, technological developments, and special populations are discussed.

## **Criminal Justice: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12<sup>th</sup> grade

Prereq: Criminal Justice: Year 1

**Online Application is required. Dual Credit is available.**

Criminal Justice Capstone course allows students to complete additional instruction to earn a postsecondary certificate and should include a work-based learning component such as job shadowing, internship, etc. once the core content is completed. Note that there may be age restrictions on work-based learning components

Fire and Rescue (Knox)							
Year 1 (11 <sup>th</sup> or 12 <sup>th</sup> grade)						Year 2 (12 <sup>th</sup> grade)	
Principles		Concentrator A		Concentrator B		Pathway Capstone	
7195	Principles of Fire Fighting	7189	Fire Fighting Fundamentals	7186	Advanced Fire Fighting	7229	Fire and Rescue Capstone

## **Fire and Rescue: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade AM

**Online Application is required. Students are responsible for their own transportation.**

Fire and Rescue introduces students to the various roles that firefighters and emergency services workers play to protect the public from the loss of life and property. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. This course will introduce students to the history, terminology, and basic firefighting skills needed for a beginning firefighter. Additionally, students will develop a career plan for a career in public safety; including areas of Fire Science, Homeland Security, and Emergency Medical Services. Fire Fighting Fundamentals is for those students who are seeking certification as a firefighter. This course will prepare students for the Hazardous Materials Awareness and Operations certifications and will introduce students to NFPA 1001 which serves as the standard of measurement for all fire fighters in North America. Students will learn the knowledge and hands-on practical skills for managing and controlling a hazardous materials incident required for the certifications. Furthermore, students will study how a fire behaves and will learn the basic firefighting skills needed to extinguish a fire while protecting themselves and other firefighters. Advanced Fire Fighting expands upon the principles and techniques of firefighting learned in Fire Fighting Fundamentals. Students will study fire protection systems, firefighter safety and survival. Students will also learn what fire is, the chemical hazards of combustion, and related by-products of fire. Additionally, students will gain a better understanding of fire department organization, administration, operations, and basic strategies and tactics.

### **Fire and Rescue: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12<sup>th</sup> grade AM

Prereq: Fire and Rescue: Year 1

**Online Application is required. Students are responsible for their own transportation**

Fire and Rescue Capstone will prepare students to earn the EMT certification.

### **Career Cluster: Transportation**

<b>Automotive Services (SCILL Knox)</b>							
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>	
<b>Principles</b>		<b>Concentrator A</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7213	Principles of Automotive Services	7205	Brake Systems	7212	Steering and Suspensions	7209	Automotive Service Capstone

### **Automotive Services: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

Principles of Automotive Services gives students an overview of the operating and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive industry. Students will study the maintenance and light repair of automotive systems. Also, this course gives students an overview of the electrical operating systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

Brake Systems gives students an in-depth study of vehicle electrical systems. Students will study the fundamentals of electricity and automotive electronics in various automotive systems. Additionally, it teaches theory, service and repair of automotive braking systems. This course provides an overview of various mechanical brake systems used on today's automobiles. This course will emphasize professional diagnosis and repair methods for brake systems.

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

## **Automotive Services: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Automotive Services: Year 1

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

Automotive Service Capstone further explores important skills and competencies within the Automotive Service Technology Pathway. Topics such as Steering & Suspension, Engine Repair, Climate Control, and Driveline Service. Additionally, Co-Op and Internship opportunities will be available for students.

<b>Aviation Management (Plymouth)</b>									
<b>Year 1 (11th or 12th grade)</b>						<b>Year 2 (12th grade)</b>			
<b>Principles</b>		<b>Concentrator A</b>		<b>Tech Skills</b>		<b>Concentrator B</b>		<b>Pathway Capstone</b>	
7214	Principles of Aviation Management	7217	Private Pilot Theory	7156	Technical Skills Development	7207	Aviation Safety and Operations	7218	Aviation Management Capstone

## **Aviation Management: Year 1**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 11th-12th grade

Location: Plymouth Municipal Airport

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

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

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

Technical Skills Development Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course

## **Aviation Management: Year 2**

Term: Full Year, 3 hours per semester- 6 total credits

Offered: 12th grade

Prereq: Aviation Management: Year 1

Location: Plymouth Municipal Airport

**Online Application is required. Dual Credit is available. Students are responsible for their own transportation.**

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

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