LAKE CENTRAL HIGH SCHOOL COURSE SELECTION GUIDE

2022-2023

LAKE CENTRAL HIGH SCHOOL

Office Hours: 6:50 a.m. – 2:50 p.m. **Phone: 219-365-8551**

Lake Central High School (LCHS) is located in St. John, Indiana and serves the "Tri-town Area" which includes the communities of Dyer, Schererville, and St. John, Indiana. The Tri-town covers an area of 32 square miles and has over 60,000 diverse residents. Situated in the northwest corner of Indiana only 35 short miles southeast of Chicago, IL and 158 miles northwest of Indianapolis, IN. The district's proximity to large metropolitan areas, along with settings ranging from suburban to rural, has caused continued growth and desirability in the community.

The Lake Central Community School district comprises of six elementary schools (K-4), three middle schools (5-8), and one high school (9-12). Approximately 10,000 culturally, academically, and economically diverse students are served in an educationally rigorous and challenging atmosphere

As a result of rapid community growth and advances in educational technology, LCHS completed a significant renovation in 2015 on the current school campus.
Renovations include:

- **880,000 square feet of student-centered space**
- **Three story Academic Wing**
- **Olympic size competition pool**
- **1,100 seat Theatre**
- **Outdoor Athletic Complex with turf baseball, softball and football fields**
- **3,800 seat gym**

Lake Central High School is fully accredited by the State of Indiana. The course offerings available to LCHS students are among the most abundant and rigorous in the state.

- **206 Course Options**
- **23 Advanced Placement (AP) Courses**
- **30 Dual Credit Courses, with more available through the Area Career Center**
- **23 Career Technology Courses and Certifications**
- **18 Honors/Advanced Courses**
- **7 Project Lead The Way (PLTW) Courses**
- **Social and Emotion Learning (SEL) Curriculum**

Lake Central High School enrolls approximately 3,200 students in grades 9-12. This places LCHS as one of the top 6 largest public high schools in the State of Indiana.

Graduates

- **96% Graduation Rate**
- **91% Core 40 Diploma or higher**
- **38% Core 40 with Academic Honors**
- **75% of Graduates pursued a college education**

State of Indiana
End of Course Assessments or Met Graduation Pathway

93% of LCHS Graduates were proficient in both English and Math ECA Standards or met a Graduation Pathway

Advanced Placement

- **1,398 AP Tests taken in 2021**
- **52% Earned a 3 or higher**

Dual Credit

- **40,000+ Dual Credits earned since 2011**
- **Dual Credit partnerships with FOUR Indiana universities/colleges!**

LCHS CLASS OF 2021 earned more than $19 MILLION in SCHOLARSHIPS!!

GRADUATION REQUIREMENTS

Every student must have at least 46 credits in order to receive a diploma from Lake Central High School. One credit for each course passed each semester.

Lake Central High School

CORE 40 *(minimum 46 credits)*

Course and Credit Requirements	
English/ Language Arts	**8 credits** Including a balance of literature, composition and speech.
Mathematics	**6 credits** 2 credits: Algebra I 2 credits: Geometry 2 credits: Algebra II Students **must** take a math or quantitative reasoning course **each** year in high school
Science	**6 credits** 2 credits: Biology I 2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics 2 credits: any Core 40 science course
Social Studies	**6 credits** 2 credits: U.S. History 1 credit: U.S. Government 1 credit: Economics 2 credits: World History/Civilization or AP Human Geography/Geography/ History of the World
Directed Electives	**5 credits** World Languages Fine Arts Career-Technical
Physical Education	**2 credits (1 Gym, 1 Pool)**
Health and Wellness	**1 credit**
Personal Financial Responsibility	**1 credit**
Electives*	**6 credits** *At least 6 credits should come from a College and Career Pathway.
Lake Central High School - 46 Total Credits Required	

CORE 40 with Academic Honors *(minimum 47 credits)*

For the **Core 40 with Academic Honors** diploma, students must:

- Complete all requirements for Core 40.
- 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.
- Earn a grade of a "C" or better in courses that will count toward the diploma.
- Have a grade point average of a "B" or better.
- Complete one of the following:
  - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
  - B. Earn 6 verifiable transcripted college credits in dual credit courses from the approved dual credit list.
  - C. Earn two of the following:
    1. A minimum of 3 verifiable transcripted college credits from the approved dual credit list,
    2. 2 credits in AP courses and corresponding AP exams,
  - D. Earn a combined score of 1750 or higher on the SAT critical reading, mathematics and writing sections and a minimum score of 530 on each
  - E. Earn an ACT composite score of 26 or higher and complete written section

CORE 40 with Technical Honors *(minimum 47 credits)*

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
  1. State approved, industry recognized certification or credential, or
  2. Pathway dual credits from the approved dual credit list resulting in 6 transcripted college credits
- Earn a grade of "C" or better in courses that will count toward the diploma.
- Have a grade point average of a "B" or better.
- Complete one of the following,
  - A. Any one of the options (A - F) of the Core 40 with Academic Honors
  - B Earn the following scores or higher on WorkKeys; Reading for Information – Level 6, Applied Mathematics – Level 6, and Locating Information-Level 5.
  - C. Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.
  - D. Earn the following minimum score(s) on Compass; Algebra 66, Writing 70, Reading 80

Succeeding with the Indiana Core 40

(Lake Central students must earn 46 credits)

STUDENTS:

- ***Must meet the Core 40 standard to be considered for admission to an Indiana four-year college or university.***
- ***Should meet the Core 40 standard to ensure success in one-year and two-year college and technical training programs.***
- ***Should meet the Core 40 standard to ensure success in the workforce.***

The Core 40 diploma became Indiana's required high school curriculum with the class of 2010. Students entering high school after 2010 are expected to complete the requirements for a Core 40 diploma.

By providing all Indiana students a balanced sequence of academically rigorous high school courses in the core subjects of English/language arts, mathematics, science, and social studies; physical education/health and wellness; and electives including world languages, career/technical, and fine arts, the Core 40 requirement gives all our students the opportunity to compete with the best. For more information about Core 40 and your career and course plan, see your counselor and/ or visit Learn More Resource Center at www.learnmoreindiana.org.

To graduate with less than Core 40, a student must complete a formal opt-out process involving parental consent. See your school counselor for further details.

This Graduation Pathway Checklist is for the Class of 2023 and beyond.

Lake Central High School

Graduation Pathway Checklist

Student Name: _____ **Cohort:** _____

Students must complete all three Graduation Pathway Requirements

1. Indiana High School Diploma

☐ General ☐ Core 40 ☐ Academic Honors ☐ Technical Honors

2. Learn and Demonstrate Employability Skills

Students must complete at least one of the following:

☐	**Project-Based Learning:** *Working for an extended period of time to investigate and respond to an authentic, Learn and Demonstrate engaging, and complex question, problem, or challenge. Students engage in a rigorous, extended process of asking questions, Employability Skills finding resources, and applying information. Students often make work public by explaining, displaying, and/or presenting it to people beyond the classroom. This can include completion of a research project, completion of a course capstone, an AP Capstone Assessment, or another experience as approved by the State Board of Education.* ***Courses that meet Project-Based Learning guidelines are noted in the Course Selection Guide.*** *Description:* _____ *Verification Product:* _____
☐	**Service-Based Learning:** *Integrates meaningful service to enrich and apply academic knowledge, teach civic and personal responsibility, and strengthen communities. This can include participation in a meaningful* ***volunteer or civic engagement experience, engagement in a school-based activity, such as a co-curricular or extracurricular activity or sport for at least one academic year****, or another experience as approved by the State Board of Education.* *Description:* _____ *Verification Product:* _____
☐	**Work-Based Learning:** *Reinforces academic, technical, and social skills learned in the classroom through collaborative activities with employer partners, allowing students to apply classroom theories to practical problems, explore career options, and pursue personal and professional goals. This can include completion of a* ***course capstone, completion of an internship, obtaining the Governor's or Local Work Ethic Certificate, employment outside of the school day****, or another experience as approved by the State Board of Education.* *Description:* _____ *Verification Product:* _____

3. Postsecondary –Ready

Students must complete at least one of the following:

☐	**Honors Diploma** ☐ AHD ☐ THD
☐	**ACT College Ready Benchmarks** (18 in English or 22 in Reading and 22 in Math or 23 in Science) English _____ or Reading _____ and Math _____ or Science _____ Competencies
☐	**SAT College Ready Benchmarks** (480 in EBRW, 530 in Math) EBRW _____ Math _____
☐	**ASVAB** (minimum score of 31) AFQT score _____
☐	**State and Industry Recognized Credential or Certification** _____
☐	**CTE Concentrator** (Earn a "C" average in 2 courses within a CTE Pathway for Class of 2023 and beyond.) _____ (Pathway) CTE1 Grade _____ CTE2 Grade _____ Average CTE Course GPA _____
☐	**AP/Dual Credit** (Earn "C" average in at least three courses - at least one in core) AP/DC1 _____ AP/DC2 _____ AP/DC3 _____ AP/DC GPA _____ Core AP Course_____

Counselor Signature: _____ Date:_____

Administrator Signature: _____ Date:_____

Grad Pathway Checklist 1/10/19

CLASS OF 2023 AND BEYOND

Students in the Class of 2023 and beyond are required to complete the State of Indiana diploma requirements on page 3 AND the Graduation Pathway requirements on page 4. These Graduation Pathways replace the ISTEP 10+ assessment.

QUANTITATIVE REASONING COURSES

In November 2011, the State Board of Education passed graduation requirements that affect incoming freshman beginning in 2012-2013, including requirements for quantitative reasoning (applied mathematics) courses.

- For the Core 40, Academic Honors (AHD), and Technical Honors (THD) diplomas, students must take a mathematics course or a quantitative reasoning (applied mathematics) course each year they are enrolled in high school. 511 IAC 6-7.1-6 (a) (4)
- For the General Diploma, students must earn two credits in a mathematics course or a quantitative reasoning (applied mathematics) course during their junior or senior year. 511 IAC 6-7.1-4 (c) (4)
- A quantitative reasoning (applied mathematics) course is a high school course that "advances a student's ability to apply mathematics in real world situations and contexts" and that "deepens a student's understanding of high school mathematics standards."
- The Indiana Department of Education will provide an annual review to determine the high school courses that meet these criteria.

Business, Marketing, and Information Technology
Advanced Accounting
Computer Science I
Computer Science II:
Personal Financial Responsibility
AP Computer Science A

Engineering and Technology
Civil Engineering and Architecture
Engineering Design and Development
Principles of Engineering

Social Studies
Economics (Class 2023 and 2024)
AP Macroeconomics
AP Microeconomics

Science
Chemistry I
H Chemistry II
Chemistry ACP
Integrated Chemistry-Physics
Physics I
AP Physics 1: Algebra-Based
AP Physics 2: Algebra-Based
AP Biology
AP Chemistry
AP Environmental Science

Trade and Industrial
Advanced Manufacturing II
Architectural Drafting and Design II
Construction Trades II
Precision Machining Fundamentals
Advanced Precision Machining
Precision Machining II

CLASS RANK AND GRADUATION HONORS

On August 17, 2009, the Lake Central School Board adopted a policy to eliminate class rank from the high school transcript. Board Policy 007.22 took effect with the graduating class of 2012. There will no longer be a class valedictorian and salutatorian.

DISTINGUISHED HONORS AT GRADUATION

Grade point average is based on a 4.0 scale. A weighted factor is used for Honors and Advanced Placement classes resulting in an individual's GPA exceeding a 4.0. Three distinct classifications will be recognized at graduation:

Distinction	Translation	Accoutrements for Ceremony	Required GPA
SUMMA CUM LAUDE	'With highest honor"	Hood	4.5 or higher
MAGNA CUM LAUDE	"With great honor"	Stole	4.2500-4.4999
CUM LAUDE	"With honor"	Cords	4.000-4.2499

To qualify for any of these distinctions, individuals will need a **minimum of 47 credits** at the end of the 8th semester. (Note: Senior Honors Night takes place prior to the completion of the 8th semester. As a result, students that have qualified for one of the distinctions by the end of the 7th semester are recognized at this event. **Every effort** will be made to recognize students that reach one of the distinctions at the end of the 8th semester – graduation program, commencement seating, etc., but due to time restraints, this cannot be guaranteed.)

EARLY GRADUATION

Students who have completed all graduation requirements may graduate early. Students need to plan carefully when considering this option. This decision should include a detailed plan of completing all required courses (may include summer courses) and students should work closely with their Lake Central School Counselor as well as their prospective college admissions offices. In order to ensure all graduation requirements are met and afford the appropriate planning time, students should contact their assigned counselor a minimum of one year in advance. Those electing to graduate in January of their senior year should speak to their counselor no later than the end of first semester – junior year. **Students electing to graduate in three years should speak to their counselors no later than the end of second semester – sophomore year and complete the required 3 Year Graduation form.**

BELL SCHEDULE

Blue and White days consist of four 90 minute blocks.. Students are able to take 7 courses in a semester plus an extra 90 minute period that meets on White Days called Pathways to Excellence (PtE). During the first 30 minutes of PtE, students will engage in a Social/Emotional Learning . 10th, 11th, and 12th grade students will have grade level specific seminars. The remaining 60 minutes is available for students to receive Academic Assistance.

DAILY BELL SCHEDULE

Blue Day	White Day
1st Period 7:15 - 8:47 (92)	5th Period 7:15 - 8:47 (92)
2nd Period 8:53-10:25 (92)	6th Period Pathway to Excellence (PtE) 8:53-10:25 (92) 8:53-9:25 Advisory (SEL) 9:25-10:25 Academic Assistance
3rd Period 10:31-12:31 (120) A Lunch = 10:25-10:55 B Lunch = 10:57-11:27 C Lunch= 11:29-11:59 D Lunch= 12:01-12:31	7th Period 10:31-12:31 (120) A Lunch = 10:25-10:55 B Lunch = 10:57-11:27 C Lunch= 11:29-11:59 D Lunch= 12:01-12:31
4th Period 12:37-2:09 (92)	8th Period 12:37-2:09 (92)

Pathways to Excellence (PtE) 8:53-10:25

Grade	*Course*	*Credits*	*Description*
9	**Freshman PtE**	0	Grade level specific activities: creation of 4 Year Plan, testing strategies, targeted instruction for improvement, development of career plans and pathways, interest inventories
10	**Sophomore PtE**	0	Grade level specific activities; revisit 4 Year Plan, testing strategies, targeted instruction for improvement, continued development of career plans and pathways, interest inventories.
11	**Junior PtE**	0	Grade level specific activities; revisit 4 Year Plan, ACT/SAT preparation, testing strategies, targeted instruction for improvement, continued development of career plans and pathways, interest inventories, leadership opportunities, college application process.
12	**Senior PtE**	0	The focus of this course is to prepare students for the transition from high school to post-secondary plans. Examples of the work that can be done in this course includes completing college applications, research trades and apprenticeships, write application essays, receive reminders about deadlines, and receive cap and gown information.

GENERAL INFORMATION

All student records and personal information are private and confidential. Information will not be released to third parties without written consent of the parent or the student who is of legal age. No third party recipient of records shall release any part without written consent

REPORT CARDS

Grade reports are finalized every 9-weeks. Students and parents can regularly check grades, receive e-mail alerts, and read class-related information through Skyward.

GRADING STANDARDS

Percentage	Letter Grade	GPA Index	Weighted GPA Index
100% - 92.5%	A	4.00	5.0
92.49% - 89.5%	A-	3.67	4.67
89.49% - 86.5%	B+	3.33	4.33
86.49% - 82.5%	B	3.00	4.0
82.49% - 79.5%	B-	2.67	3.67
79.49% - 76.5%	C+	2.33	3.33
76.49% - 72.5%	C	2.00	3.0
72.49% - 69.5%	C-	1.67	2.67
69.49% - 66.5%	D+	1.33	1.33
66.49% - 62.5%	D	1.00	1.0
62.49% - 59.5%	D-	0.67	.67
59.49% - 0	F	0	0
Audit (no credit)	W/F, W, N	0	0

All accelerated classes, identified on page 12, reflect an additional 1.0 on the grade index. A grade of "D" in an accelerated class **will not** be awarded the additional 1.0 weighting. Honor roll is based on a 3.0 GPA. The requirement for high honor roll is a 3.67 GPA.

GRADE REPLACEMENT POLICY

When a student retakes a course, only the higher grade is used to calculate in the student's grade point average and the lower grade will be treated as an audit. An audit grade appears on a transcript as an "N". **All courses will remain on the transcript. Grades transferred to Lake Central from other high schools are not replaceable.**

OUTSIDE CREDIT

Diplomas issued by Lake Central High School will allow up to six (6) credits from outside accredited sources such as Indiana Online Academy or Brigham Young University. Students may take courses through outside accredited institutions any semester after freshman year and must be enrolled in a minimum number of pre-designated credit hours at Lake Central. Documented pre-approval from the LCHS counselor or assistant principal is required and will ensure the course credit will transfer to the Lake Central transcript without issue. Exceptions will be made for students with extenuating circumstances such as serious illness or those who transfer to Lake Central High School.

CREDIT RECOVERY

Lake Central's Credit Recovery Program is meant to allow eligible junior and/or senior students to recover credits in core subjects during the school year and afford them the opportunity to get back on track with their classmates. This program is a privilege that will allow eligible students to complete courses at their own pace and place special emphasis on the necessary areas of remediation. Students will receive a grade no higher than a "C-" upon satisfactory completion of the pretest, learning modules for the unit, posttests and end of semester tests. Only the replacement grade will be calculated in the student's grade point average and the lower grade will be treated as an audit. An audit (no grade) appears on a transcript as an "N". All courses will remain on the transcript. **Credit recovery courses do not meet NCAA standards**.

If a student retakes a course in a regular Lake Central classroom setting or through Indiana Online Academy, there are no restrictions on the grade attainable. The higher grade will be calculated in the student's grade point average and the lower grade will be treated as an audit. An audit (no grade) appears on a transcript as an "N". All courses will remain on the transcript. **It is the responsibility of the student to notify their school counselor upon successful completion of a course.**

INDIANA DEPARTMENT OF EDUCATION DUAL CREDIT RULE (off-campus)

Under certain circumstances, students may be released from their high school schedule to attend college classes and apply the credits earned toward high school graduation. Parents interested in pursuing this option for their child should contact their school counselor for specific information.

DUAL CREDIT (on-campus)

Certain classes at LCHS have been identified as dual credit. Dual credit courses are authorized through an agreement with local colleges or universities. Students must meet all university requirements to be eligible for college credit. In some cases, students will be required to pay a fee to the university to receive the appropriate college credit. For more information, please contact the guidance department or check the LCHS dual credit website. Keep in mind that some courses are designated for dual credit **only** for juniors and seniors. Some colleges require a minimum GPA in order to enroll for dual credit, and some courses may require a placement test to be taken. Please check these requirements before signing up for dual credit. The agreements between Lake Central High School and the colleges, as well as the requirements and fees, are subject to change prior to the start of the courses. Students should be mindful of the college drop dates. A student may drop from dual credit and remain in the course.

Purdue University Northwest

High School Course	HS CODE	College Course	Institution	Approx. Cost	No. of College Credit Hours	GPA/Requirements	Core Transfer Library
Composition	E1090D	ENG - 104	Purdue Northwest	$25/cr hour	3	2.5	Yes
Speech Communication	E1078D	COM-114	Purdue Northwest	$25/cr hour	3	2.5	Yes
United States History	H1542D	Hist - 151 & Hist-152	Purdue Northwest	$25/cr hour	6	2.5	Yes
Trigonometry	M2566	MA 15400	Purdue Northwest	$25/cr hour	3	2.5	Yes
Pre-calculus	M2564	MA 15300	Purdue Northwest	$25/cr hour	3	2.5	Yes
Calculus	M2527D	MA 16300	Purdue Northwest	$25/cr hour	5	2.5	Yes
Adv Math CC Calculus II	M2544D	MA 16400	Purdue Northwest	$25/cr hour	5	2.5	Yes
Pre-calculus/Trigonometry, Honors	2564	MA 153 & MA 154	Purdue Northwest	$25/cr hour	6	2.5	Yes
Statistics	2546	STAT 301	Purdue Northwest	$105.10/cr hour	4	2.5, and PNW MA 153	
Microeconomics	1574	Econ 25100	Purdue Northwest	$25/cr hour	3	2.5	

Indiana University Bloomington

High School Course	HS CODE	College Course	Institution	Approx. Cost	No. of College Credit Hours	GPA/Requirements	Core Transfer Library
Chemistry I Honors (ACP-Advanced College Project)	S30901	C-101/C-121	Indiana University Bloomington	$25/cr hour	5	2.75	Yes
Anatomy & Physiology Honors (ACP - Advanced College Project)	S5276H	BIO PHSL130/N213	Indiana University Bloomington	$25/cr hour	5	2.75	No
Comp Sci I (ACP- Advanced College Project)	B48010	C102 and I101	Indiana University Bloomington	$25/cr hour	7	2.75	

Ivy Tech Community College

High School Course	HS CODE	College Course	Institution	Approx. Cost	No. of College Credit Hours	GPA/Requirements	Core Transfer Library
Business Law	B45600	BUSN-201	IVY Tech	free	3		No
Digital Applications and Responsibility I	B45280	CINS- 101	IVY Tech	free	3		No
Entrepreneurship and New Ventures Capstone	B59660	ENTR-101/105	IVY Tech	free	6		No
Principles of Business Management	B45620	BUSN-101	IVY Tech	free	3		Yes
Principles of Automotive Service	V72130	AUTI-100 &AUTI-111	IVY Tech	free	6	None	No
Automotive Technology	V55100	AUTI-111	IVY Tech	free	3	PREREQUISITE or COREQUISTIE: AUTC 100 Introduction to Automotive	No
Automotive Technology	V55100	AUTI-121	IVY Tech	free	3	PREREQUISITE or COREQUISITE: AUTI 111, Electrical Systems I or AUTC 113 Electrical and Electronics I	No
Automotive Technology	V55100	AUTI-122	IVY Tech	free	3	PREREQUISITE or COREQUISITE: AUTI 111, Electrical Systems I or AUTC 113 Electrical and Electronics I	No
Precision Machining I & II	V57820	MTTC-101	IVY Tech	free	3	None	No
Precision Machining I & II	V57820	MTTC-110	IVY Tech	free	3	None	No
Intro To Engineering PLTW	V48120	DESN-101	IVY Tech	free	3	None	No
Principles of Eng. PLTW	V48140	DESN-104	IVY Tech	free	3	PREREQUISITE: DESN 101	No
Civil Engineering Architecture PLTW	V48200	DESN-105	IVY Tech	free	3	PREREQUISITE: DESN 101 & DESN 104	No

Vincennes University

High School Course	HS CODE	College Course	Institution	Approx. Cost	No. of College Credit Hours	GPA/Requirements	Core Transfer Library
Graphic Imaging Tech II	V55720	DESN 120/15)	Vincennes University	free	6	None	No

HONORS AND ADVANCED PLACEMENT COURSES (AP)

In accordance with the purpose and philosophy of Lake Central High School, programs and courses are provided which meet the needs and individual differences of the intrinsically motivated student through honors courses and accelerated programs.

Classroom teachers will recommend students for enrollment in Honors and Advanced Placement classes based upon classroom performance and certain test scores. Several honors and Advanced Placement classes are available to all students who wish to pursue a more rigorous curriculum.

Level changes must be initiated by teachers no later than Tuesday, September 22, 2022 (6 weeks from the start of school). Teachers will track the student's progress and complete a Level Change Form to be reviewed by the student's team. This team includes the assistant principal, dean, school counselor, teacher, department head, and parent. Students dropping a class after the first six weeks will receive a W/F, may only drop to a study hall, and cannot have another study hall already in their schedule. Students performing below a weighted 3.0 for the semester should give serious consideration to transferring to a regular course second semester. Teachers are encouraged to and may recommend a student's transfer from a regular course to an honors course if class performance is exceptional.

The following accelerated classes are identified with Honors or AP and will reflect an additional 1.0 on the grade index. A grade of "D" in an accelerated class **will not** be awarded the additional 1.0 weighting.

Advanced Placement Courses (AP)

Art and Music
AP 2-D Art and Design
AP Music Theory

Business
AP Computer Science A
AP Principles of Computer Science

English
English 11 AP Language and Composition
English 12 AP Literature and Composition

Math
AP Statistics
AP Calculus AB
AP Calculus BC

Science
AP Biology
AP Chemistry
AP Environmental Science
AP Physics 1
AP Physics 2

Social Studies
AP U.S. Government & Politics
AP Human Geography
AP Microeconomics
AP Macroeconomics
AP Psychology
AP US History

Interdisciplinary
AP Seminar
AP Research

Honors Courses

English
English 9 Honors
English 10 Honors
Student Media Honors
Mass Media Honors

Mathematics
Algebra II Honors
Geometry Honors
Pre-Calculus/Trig Honors

Science
Anatomy & Physiology Honors (ACP)
Biology Honors
Chemistry Honors
Chemistry Honors I (ACP)
Chemistry Honors II

World Languages
French III Honors
French IV Honors
German III Honors
German IV Honors
Spanish III Honors
Spanish IV Honors

ADVANCED PLACEMENT (AP) 2021-2022 SCHOOL YEAR

Lake Central High School offers Advanced Placement (AP) classes in the areas of science, math, social studies, English, music and art. The course descriptions are listed in the department sections of this guide. These courses are designed to enable students to pursue college-level studies while in high school. The College Board prescribes the content of AP courses**. At the completion of an AP course, it is strongly recommended that students take the AP exam given nationally in May.** Students desiring to use an AP course to achieve an Academic Honors Diploma must take the AP exam. Universities can award college credit based on the results of these exams. There is a cost associated with the exam. Registration and payment will take place in August-October of 2022 for yearlong and first semester courses, and in February, 2023 for second semester courses. After the enrollment window, students can still register with a late fee. There is also a drop fee if the student no longer wishes to take the exam. In the 2022 school year, most exams cost $96/exam with a $10 Administration Fee. Students **enrolled** in math, science, English and interdisciplinary AP Courses received a waiver from the state for the exam fee. This is an Indiana Department of Education decision and subject to change.

COURSE REQUESTS AND SCHEDULE CHANGES

Designing your ideal schedule is an important decision. The high school master schedule is **created**, the budget is **prepared**, and staff is hired based on student course **requests**. Lake Central High School students are expected to **invest quality time** planning their course requests. This **planning** should consist of **consultation** with parents, teachers, counselors, college advisors, and anyone who could provide **sound advice** while working toward the student's **long-term goals. As a result,** students are expected to remain on the schedule that is provided for them at the beginning of the school year and parents must approve all changes.

Procedures for Schedule Changes:
During the scheduling process for the next year, requests for changes are subject to course availability and should be made with the student's school counselor by **Friday, March 11, 2022** Any students requesting schedule changes **after March 11, 2022**, will need to complete a ***Schedule Change Request*** form. This **must be** turned into Guidance no later than **Friday, July 29, 2022 by 3:00pm.** This cannot be emailed or faxed. The **Schedule Change Committee will review requests from Monday, August 1 through Thursday, August 4th. Approved requests will be changed. Requests that are denied will be notified via email.**

Any students requesting schedule changes **after 3:00pm on Friday, July 29, 2022**, will need to complete a ***Schedule Change Request*** form and return it to Guidance **no later than Wednesday, August 17, 2022 by 2:15pm**. This must be physically dropped off to Guidance and cannot be emailed or faxed. These forms will be reviewed by a **Schedule Change Committee** and approved requests will be completed by **Friday, August 19, 2022**. Requests that are denied will be notified via email.

Students **who choose to drop a class after the first six weeks** will receive a **W/F** on their transcript, **may only drop to a study hall**, and **cannot have another study hall already in their schedule**. Students performing below a weighted 3.0 for the semester should give serious consideration to transferring to a regular course second semester. Teachers may also recommend a student's transfer from a regular course to an honors course if class performance is exceptional.

Level changes must be **initiated by teachers no later than Thursday, September 22 2022**. Teachers will track the student's progress and complete a Level Change Form to be reviewed by the student's academic team. This includes the assistant principal, school counselor, teacher, department head, and parent.

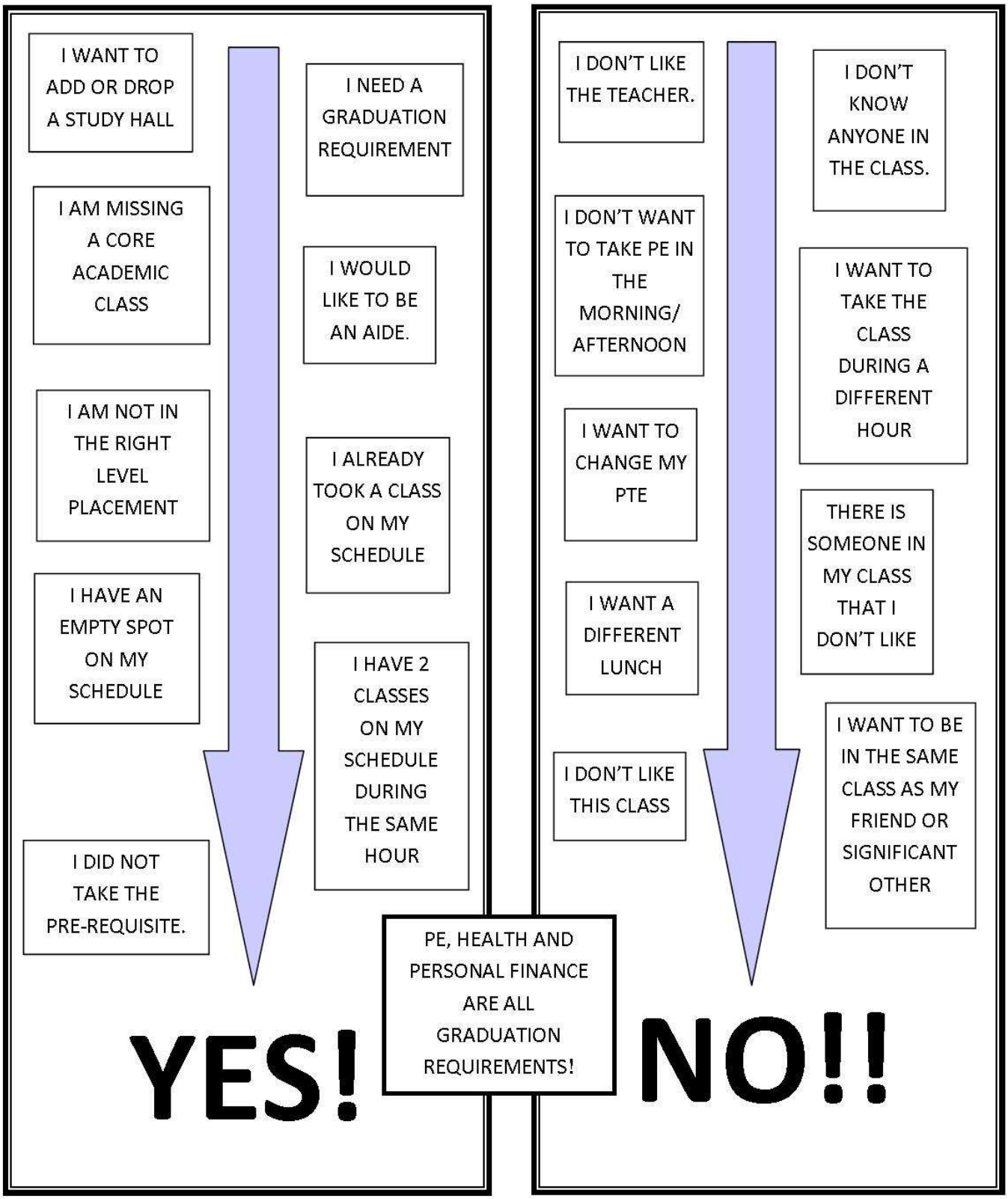
A student's schedule may also be changed for the following reasons:

A. Errors made by the school in developing the schedule
B. The school's need to balance class sizes
C. Medical reasons with documentation
D. To correct inappropriate placement - student with a failure and needs to repeat a class or a student placed at an inappropriate level.
E. To upgrade the content of the schedule - move to an advanced, Honors, or AP course, if available
F. Scheduling conflicts

ALL Schedule Change Request forms will be reviewed by the student's academic team to determine if a change is truly needed. ALL changes are contingent on the availability of the course requested. Requests for teacher changes will not be accommodated. Students are permitted only **one study hall**.

CAN I CHANGE MY SCHEDULE: 101

A GUIDE FOR LC STUDENTS



LAKE CENTRAL HIGH SCHOOL LIBRARY COMMONS

It is the purpose and the mission of the Lake Central Library Commons to empower students to become knowledgeable and critical consumers of information, in all of its varied formats. The Library Commons facility includes two computer labs, two small group project/study rooms, one large group project room and an art gallery showcasing Lake Central student art work. In addition, a student-run technology help desk is also housed on site. The library proper includes 45 student computer workstations and a print collection of over 12,000 volumes. Along with the print collection, numerous subscription databases, eBooks, and digital magazines are also available to students. Digital assets are accessible through the library's website at http://library.lcsc.us/lake-central-high-school/.

Students are expected to be courteous and to show respect for their fellow students, the library staff, the library facility and its furnishings, as well as the library materials. Water bottles are permitted in the library; other drinks and snacks are strictly prohibited.

Library Hours: 6:50 AM – 2:50 PM
Students may visit the library before school and after school at their discretion. During the school day, students may visit the library with their classes or with a signed pass from the librarian. Students wishing to visit the library during lunch must obtain a signed pass from the librarian prior to their lunch time. Students are requested to sign in at the circulation desk upon arrival and sign out when leaving the library.

PtE:
Students who wish to visit the library during PtE must request a pass from the librarian at any time before 7:15 AM of the day of the PtE Only the librarian can issue library PtE passes and last minute requests will not be honored.

Study Hall:
Students who wish to visit the library during study hall must obtain a signed pass from the librarian before 7:15 AM the day of their assigned study hall. There are a limited number of study hall passes available and students should plan ahead if their homework requires them to use the library's collection during their assigned study hall. Last minute pass requests will not be honored, and please understand that the librarian can only issue passes from **study hall** and not from academic classes.

LAKE CENTRAL HIGH SCHOOL 2022-2023 COURSE SELECTION SHEET

R= Required Course Q= Quantitative Reasonsing Course D=Dual Credit * Fine Art (s)=Semester Course

W=Word Based Learning S=Service Based Learning P= Project Based Learning ACP=Advanced College Placement

Honors AP

CORE COURSES

ENGLISH				Grade Level			
English 9	R			9			
English 9 with Lab				9			
English 9 Honors				9			
English 10	R				10		
English 10 with Lab					10		
English 10 Honors					10		
English 11	R					11	
AP English 11 Language & Comp						11	
AP English 12 Literature & Comp							12
Composition (s)	R	D					12
World Literature (s)	R						12
Speech & Communication (s)	D						12
Film Literature (s)					10	11	12
English as a New Language				9	10	11	12

MATHEMATICS				Grade Level			
Algebra I	R			9			
Algebra I with Lab				9			
Geometry	R				10		
Geometry with Lab					10		
Geometry Honors				9	10		
Algebra II	R				10	11	12
Algebra II Honors				9	10	11	12
Analytical Algebra II					10	11	12
Pre-Calculus (s)	D				10	11	12
Trigonometry (s)	D				10	11	12
Pre-Calculus/Trigonometry Honors	D				10	11	12
AP Calculus AB	Q					11	12
Calculus I	Q	D				11	12
AP Calculus BC	Q						12
Adv Calculus	Q	D					12
Statistics (s)	Q					11	12
Elementary Statistical Methods	Q	D				11	12
AP Statistics	Q					11	12

INTERDISCIPLINARY				Grade Level			
AP Seminar	P				10	11	12
AP Research	P					11	12

SCIENCE				Grade Level			
Biology	R			9			
Biology Honors				9			
AP Biology					10		
Principles of Biomedical Science - PLTW	P			9	10	11	12
Human Body Systems- PLTW	P				10	11	12
Medical Interventions- PLTW	P				10	11	12
Chemistry	R	Q			10	11	12
Chemistry Honors	Q				10	11	12
Chemistry I Honors ACP	Q	D			10	11	12
Chemistry II Honors	Q					11	12
AP Chemistry (2 class periods)	Q					11	12
Earth Space Science					10	11	12
Integrated Chemistry Physics	Q				10	11	12
Physics	Q				10	11	12
AP Physics I	Q					11	12
AP Physics II	Q					11	12
Anatomy & Physiology Honors - ACP	D					11	12
Environmental Science (s)					10	11	12
AP Environmental Science	Q				10	11	12
Forensics (s)						11	12
Human Genetics(s)					10	11	12
Zoology (s)						11	12

SOCIAL STUDIES				Grade Level			
Geography and History of the World	R			9	10	11	12
AP Human Geography				9	10	11	12
U.S. History	R	D				11	
AP U.S. History					10	11	
U.S. Government (s)	R						12
AP U.S. Government (s)						11	12
Economics (s)	R	Q					12
AP Macroeconomics(s)	Q						12
Microeconomics DC(s)	Q	D					12
AP Microeconomics (s)	Q						12
Topics in History: Contempory U.S. History(s)	P					11	12
Psychology (s)					10	11	12
AP Psychology					10	11	12
Sociology (s)					10	11	12
Ethnic Studies (s)				9	10	11	12
Indiana Studies (s)				9	10	11	12

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Honors

AP

ARTS

ART				Grade Level			
2D Art I* (s)				9	10	11	12
2D Art II* (s)				9	10	11	12
2D Art III/IV *					10	11	12
2D Art V/VI*						11	12
AP 2D Art and Design	P						12
3D Art I (s)*				9	10	11	12
3D Art II (s)*				9	10	11	12
3D Art III/IV*					10	11	12
Ceramics I (s)*				9	10	11	12
Ceramics II (s)*				9	10	11	12
Ceramics III/IV*	P				10	11	12

COMMUNICATIVE ART				Grade Level			
Student Media*	P				10	11	12
Student Media Honors (2 Periods)*	P					11	12
Student Broadcast*	P				10	11	12
Student Broadcast Honors (2 Periods)*	P					11	12
Theatre Arts*	P			9	10	11	12
Theatre Arts II*	W	P			10	11	12
Theatre Production Management*	W	P		9	10	11	12
Journalism: Publication Design (s)				9	10	11	12
Journalism: Writing (s)				9	10	11	12
Journalism:Broadcast (s)				9	10	11	12
Photography* (s)				9	10	11	12

PHYSICAL EDUCATION				Grade Level			
PE-Pool (s)	R			9			
PE-Gym (s)	R			9			
Physical Conditioning					10	11	12
Sports Conditioning					10	11	12
Life Saving & Water Safety (s)	W				10	11	12
Lifetime Fitness (s)					10	11	12
Health Education (s)	R				10	11	12
Lifeguarding	S				10	11	12
Adv Life Saving (Recertification) (s)	W				10	11	12
Intro to Sports Medicine (s)	W				10	11	12
Swimming for Fitness					10	11	12

MUSIC				Grade Level			
Junior Treble Choir*	P			9	10	11	12
Senior Treble Choir*	P				10	11	12
Varsity Choir*	P			9	10	11	12
Concert Choir*	P				10	11	12
Symphonic Band*	P			9	10	11	12
Concert Band*	P				10	11	12
Wind Ensemble*	P				10	11	12
Percussion Ensemble*	P			9	10	11	12
Jazz Ensemble*	P			9	10	11	12
Electronic Music*(s)				9	10	11	12
Music Theory* (s)				9	10	11	12
AP Music Theory					10	11	12
Music History/Appreciation*(s)				9	10	11	12
Hand Bells I*	P			9	10	11	12
Hand Bells II*	P				10	11	12
Introduction to Guitar* (s)				9	10	11	12

WORLD LANGUAGES

WORLD LANGUAGES				Grade Level			
French I, II				9	10	11	12
French III Honors	P					11	12
French IV Honors	P					12	
German I, II				9	10	11	12
German III Honors						11	12
German IV Honors							12
Spanish, I, II, III, IV				9	10	11	12
Spanish III Honors						11	12
Spanish IV Honors							12

CAREER AND TECHNICAL EDUCATION

CAREER AND TECHNICAL EDUCATION				Grade Level			
Intro to Engineering Design PLTW		D		9	10	11	12
Principles of Engineering PLTW	Q	D			10	11	12
Civil Engineering Architecture PLTW	Q	D				11	12

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Honors AP

CAREER AND TECHNICAL EDUCATION

BUSINESS				Grade Level			
Principles of Business Management	P			9	10	11	12
Principles of Entrepreneurship (1/2)	D			9	10	11	12
New Ventures Developement (2/2)	D			9	10	11	12
Principles of Computing				9	10	11	12
Accounting Fundamentals					10	11	12
Advanced Accounting	Q	S			10	11	12
Digial Apps and Responsibility I (s)	D			9	10	11	12
Digial Apps and Responsibility II (s)				9	10	11	12
Web Design (s)				9	10	11	12
Business Law and Ethics (s)	D				10	11	12
Personal Finance and Responsiblilty (s)	R	Q				11	12
Marketing Fundamentals					10	11	12
Strategic Marketing						11	12
Merchandising					10	11	12
Sports & Entertainment Marketing					10	11	12
Entrepreneurship and New Ventures Capstone	P	D				11	12
Computer Science I-ACP and AP CS Prin	Q	D			10	11	12
Computer Science II	Q	D			10	11	12
Cybersecurity PLTW	Q	P			10	11	12
AP Computer Science A	Q				10	11	12

FAMILY & CONSUMER SCIENCE				Grade Level			
Nutrition & Welness I (s)	P			9	10	11	12
Adv. Nutrition & Wellness (s)	P			9	10	11	12
Adv. Nutrition & Wellness- Baking (s)	P			9	10	11	12
Housing & Interior Design* (s)	P			9	10	11	12
Adult Roles & Responsibilities (s)				9	10	11	12
Child & Adolescent Development				9	10	11	12
Principles of Teaching				9	10	11	12
Nutrition				9	10	11	12
Principles of Culinary & Hospitality				9	10	11	12
Principles of Human Services				9	10	11	12
Relationships & Emotions				9	10	11	12

MISCELLANEOUS				Grade Level			
Peer Mentoring	S			9	10	11	12
Education Professions	W						12
College Course (Off Campus)							12
Study Hall (no credit)				9	10	11	12
Work Based Learning (3 periods)	W						12
Independent Research							12

TECHNICAL EDUCATION				Grade Level			
Principles of Digital Design 9				9	10	11	12
Principles of Digital Design (1/3)	D	P			10	11	12
DigitalDesign Graphics (2/3)					10	11	12
Technical Skill Develop. Graphics (3/3)					10	11	12
Digital Design Capstone (3 pds)						11	12
Principles of Precision Machine 9				9	10	11	12
Principles of Precision Machine (1/3)					10	11	12
Precision Machine Fundamentals (2/3)	Q				10	11	12
Adv Precision Machine (3/3)	Q				10	11	12
Precision Machine II (3 Periods)	Q	D	P			11	12
Principles of Auto Service 9				9	10	11	12
Principles of Auto Service (1/3) PM					10	11	12
Brake Systems (2/3) PM					10	11	12
Steering and Suspension (3/3)PM							
Auto Services Technology II AM (3 pds)	D	P				11	12
Principles Fire and Rescue (1/3)	D	P				11	12
Fire Fighting Fundamentals (2/3)						11	12
Advanced Fire Fighting (3/3)						11	12

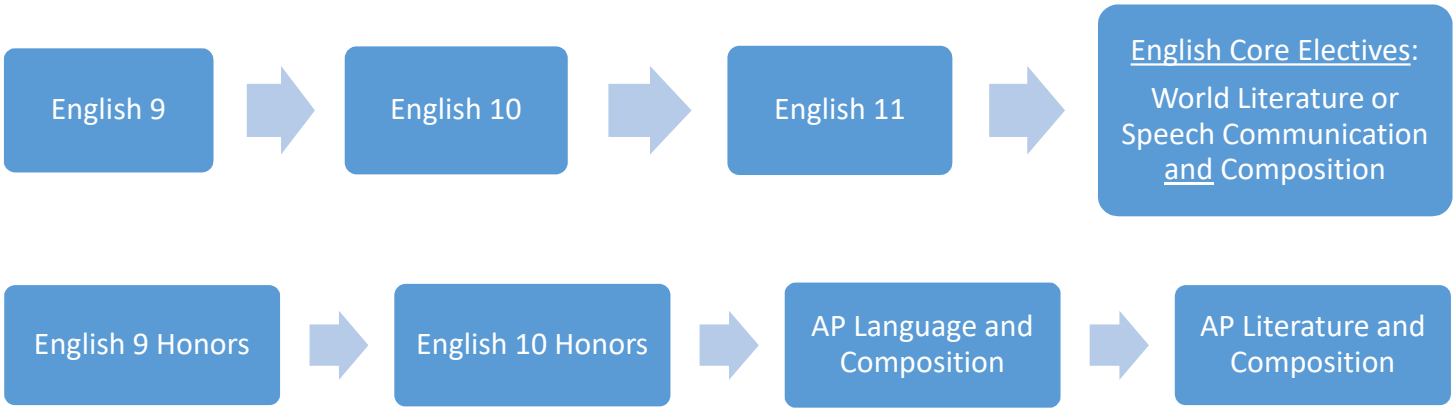
AREA CAREER CENTER (4 PERIODS)				Grade Level			
Auto Technology	W					11	12
Collision & Refinishing Technology	W					11	12
Computer Information Technology	W					11	12
Construction Technology	Q	W				11	12
Criminal Justice and Law	W					11	12
Culinary & Pastry Arts Sciences	W					11	12
Dental Assisting	W					11	12
Digital Imaging and Design	W					11	12
Early Childhood Education Services	W					11	12
Emergency Medical Services	W					11	12
Eng PLTW Adv. Manufacturing	W					11	12
Health Careers I and II	W					11	12
Multimedia Editing and Production	W					11	12
Welding	W					11	12

COURSE DESCRIPTIONS

Please keep in mind that these courses are subject to change based on funding, participation of students and teacher licensing.

ENGLISH

ENGLISH *Course Sequencing*



English 9 (E10020)
2 semesters, 2 credits
Usage, composition, vocabulary and literature are integrated into a one-year college prep program. Usage focuses on the grammar and mechanics of writing. Composition involves the writing process. Various types of writing are taught. The literature component has textbook selections, as well as longer works. Vocabulary is taught both as part of the reading selections and as well as additional Latin roots. Students write and deliver grade-appropriate oral and multimedia presentations.

English 9 Honors (E1002H)
2 semesters, 2 credits
English 9 Honors is an accelerated curriculum. It involves a more in-depth study of various units than the general curriculum. Grammar study focuses on the grammar and mechanics of writing. Composition involves the writing process. Various types of writing are taught. A genre approach is used for literature and longer works, as well as poetry, nonfiction, informational text and short stories, are read. Vocabulary is taught both as part of the reading selections and as a separate entity. Students write and deliver grade-appropriate oral and multimedia presentations. This course has required Summer Reading. Required book: *A Raisin in the Sun*, Lorraine Hansberry and choose ONE of the following books *The Memory Keeper's Daughter* by Kim Edwards, *Columbine* by Dave Cullen, *Where the Crawdads Sing* by Delia Owens, or *North of Happy* by Adi Alsaid.

English 10 (E10040)
2 semesters, 2 credits
Usage, composition, vocabulary, and literature are integrated into a one-year college prep program. Usage focuses on the grammar and mechanics of writing. Composition involves the writing process. Various types of writing are taught. The literature component has textbook selections, as well as longer works. Vocabulary is taught both as part of the reading selections and as well as Latin roots. Students write and deliver grade-appropriate oral and multimedia presentations.

English 10 Honors (E1004H)
2 semesters, 2 credits
Advanced English 10 is an accelerated curriculum. It involves an in-depth study of various units. Usage and grammar focuses on the skills necessary for effective writing. Composition involves the writing process. Various types of writing are taught. The literature component has many works, as well as poetry, non-fiction, and short stories. Vocabulary is taught both as part of the reading selections and as a separate entity. Students write and deliver grade-appropriate oral and multimedia presentations. This course has required Summer Reading. Required book: *Things Fall Apart* by Chinua Achebe and choose ONE of the following books: *The Secret Life of Bees* by Sue Monk Kidd, *The Curious Incident of the Dog in the Night-Time* by Mark Haddon, *The 57 Bus* by Dashka Slater, or *Hotel on the Corner of Bitter and Sweet* by Jamie Ford.

English 11 (E10060)
2 semesters, 2 credits
Usage, composition, vocabulary, and American literature are integrated into a one-year college prep program. Mastery of standard language conventions is stressed in this course. Composition is taught as a process with various types of writing characteristics. Vocabulary is taught both as part of the selections and as a separate entity. The American literature component has textbook selections, as well as longer works. Students write and deliver grade-appropriate oral and multimedia presentations.

AP English 11
Language and Composition (E10560)
2 semesters, 2 credits
This class focuses on material and skills appropriate for the AP Language and Composition test. Students will analyze a variety of fiction and nonfiction texts (with a greater emphasis based on nonfiction) as a means to develop their own voices in their own writing. AP is a cooperative educational endeavor between secondary schools and post-secondary institutions. Administered by the College Board, the AP program provides capable students the opportunity to earn college credit. Required Summer Reading: The Things They Carried by Tim O'Brien and one book of fiction and one book of nonfiction of choice from a list provided by the AP 11 instructors.

AP English 12
Literature and Composition (E10580)
2 semesters, 2 credits
***Recommended*: Must have passed English 11**
This class focuses on the knowledge and skills appropriate for the AP Literature and Composition test. The literature component focuses on an in-depth chronological study of British literature. Students study composition as a process and write a variety of papers. Mastery of language conventions is expected. Vocabulary is studied both as part of the reading and as a separate entity. Students write and deliver grade-appropriate oral presentations. AP is a cooperative educational endeavor between secondary schools and postsecondary institutions. Administered by the College Board, the AP program provides capable students the opportunity to pursue college-level studies while still in high school. The AP test, which is given in May, affords the opportunity to earn college credit. Required Summer Reading: *The Great Train Robbery*, Michael Crichton, *Eats, Shoots and Leaves: The Zero Tolerance Approach to Punctuation,* by Lynne Truss. ISBN:1-592-40087-6 by Gotham Books, and view *Cast Away;* Tom Hanks, featured performer.

Composition (E10900) Or Composition Dual Credit (E1090D)
1 semester, 1 credit
Dual Credit: ENG 104 Purdue University Northwest
This course focuses on the writing skills necessary for college-bound students. Students master language conventions. Composition is taught as a process, and various types of writing and their characteristics are taught. Students also study vocabulary as well as additional Greek roots. Models of effective writing are read and analyzed. Students write and deliver grade-appropriate oral presentations. Juniors and seniors may be eligible to take this course as dual credit through Purdue University Northwest and earn college credit while satisfying the Indiana state requirements. *In addition to a writing class, each student must successfully complete World Literature or Advanced Speech.

World Literature (E10520)
1 semester, 1 credit
World literature surveys literature written by major authors of the Western and Eastern worlds. This course takes an analytical approach to literary works produced by writers of various cultures and nationalities. Consistent reading, formal and informal writing, discussion, vocabulary, and Greek words are part of this college prep course. NOTE: seniors may take Speech and Communication in lieu of a semester of World Literature.

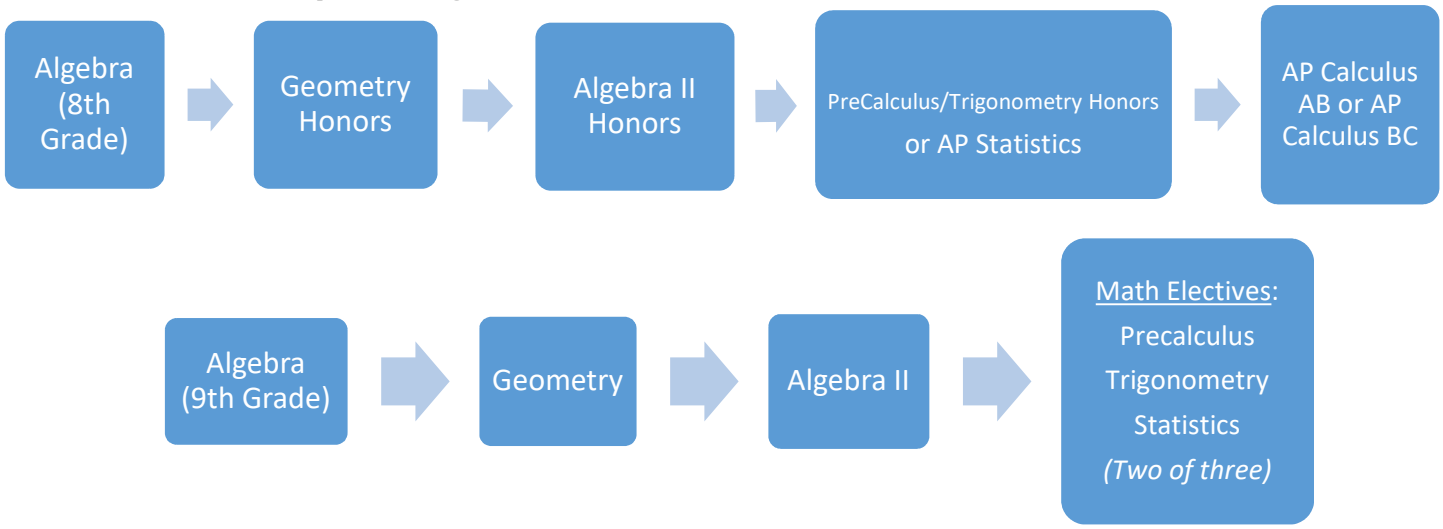
Speech and Communication (E10780) Or Speech and Communication Dual Credit (E1078D)
1 semester, 1 credit
Dual Credit: COM 114 Purdue University Northwest
Speech is a one-semester elective course. Emphasis will be placed on advanced public address and critical listening. Students will present informative, demonstration, persuasive and impromptu speeches. This course will examine both interpersonal and intrapersonal communication. NOTE: seniors may take this course in lieu of a semester of World Literature.

Film Literature (E10340)
1 semester, 1 credit
***Recommended*: English 10**
Film Literature, a course based on Indiana's Academic Standards for English/Language Arts and the Common Core State Standards for English/Language Arts, is a study of how literature is adapted for film or media and includes role playing as film directors for selected screen scenes. Students read about the history of film, the reflection or influence of film on the culture, and issues of interpretation, production and adaptation. Students examine the visual interpretation of literary techniques and auditory language in film and the limitations or special capacities of film versus text to present a literary work. Students analyze how films portray the human condition and the roles of men and women and the various ethnic or cultural minorities in the past and present.

English as a New Language (E10120)
2 semesters, 2 credits
This course is designed for students who have been in the U.S. fewer than four years. English as a New Language (ENL) provides ENL students with instruction in English to improve their proficiency in listening, speaking, reading, and writing. Emphasis is placed on helping students function within the regular school setting and within an English-speaking society. Students are placed in this class by recommendation only.

MATHEMATICS

MATH *Course Sequencing*



Algebra I (M25200)
2 semesters, 2 credits
This class is the foundation course for the development of algebraic skills and concepts necessary to succeed in advanced courses. This course covers computing with real numbers, solving first and second degree equations, factoring, graphing, and solving systems of equations. This course provides for the use of algebraic skills in a wide range of problem solving situations

Geometry (M25320)
2 semesters, 2 credits
***Recommended*: Algebra I**
Geometry should provide students with experiences that help them understand geometric shapes and their properties. Deductive and inductive reasoning, investigative strategies in drawing conclusions, and an understanding of proof and logic will be used. Properties and relationships of lines, angles, planes, congruent and similar triangles, trigonometric ratios, polygons, and circles will be explored.

Geometry Honors (M2532H)
2 semesters, 2 credits
***Recommended*: Grade of A or B in Algebra I**
Geometry Honors will provide students with experiences that deepen the understanding of geometric shapes and their properties. Deductive and inductive reasoning as well as investigative strategies in drawing conclusions will be stressed. Properties and relationships of lines, angles, planes, congruent and similar triangles, trigonometric ratios, polygons, and circles will be explored. An in-depth understanding of proof and logic will be developed.

Algebra II (M25220)
2 semesters, 2 credits
***Recommended*: Geometry and Algebra I**
This course includes a review of Algebra I and an expansion of the topics covered in Algebra I. This course covers relations, functions, polynomials, algebraic fractions, logarithmic and exponential functions, sequences and series, counting principles and probability. Solving higher degree equations and inequalities, and applications of math to science will also be included.

Analytical Algebra II (M25240)
2 semesters, 2 credits
***Recommended*: Algebra 1**
Analytical Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, radical, logarithmic, and other functions. Data analysis, statistics, and probability content should be included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences using technology to model real world problems with various functions, using and translating between multiple representations. This course is not recommended for students interested in pursuing a STEM degree at a four-year institution; this course does not prepare students for Pre-Calculus Algebra / Precalculus Trigonometry**. If students use this course to fulfill this credit, the parent and student must sign a consent form notifying the parent and the student that enrollment in Analytical Algebra II may affect the student's ability to attend a particular post-secondary educational institution or enroll in a particular course at a particular post-secondary educational institution because Analytical Algebra II may not align with academic requirements established by the post- secondary educational institution.**

Algebra II Honors (M2522H)
2 semesters, 2 credits
***Recommended*: Geometry Honors or Geometry with teacher recommendation**
This course is for college-bound students who can learn at a faster pace. The course accomplishes the objectives of Algebra II and also includes the study of parabolas, greatest integer functions, absolute value functions, and polynomial functions. An introduction to determinants, logarithms and exponential functions, probability, permutations, combinations, and series and sequences is included. In certain situations, this course may be taken concurrently with Geometry Honors. Classroom TI83 graphing calculators are used.

Pre-Calculus (M25640) Or Pre-Calculus Dual Credit (M2564D)
1 semester, 1 credit
Dual Credit: Ma 15300 PNW
Recommended: Algebra II - C or higher
This course is designed to further teach certain topics taught in Algebra II Honors but not taught in Regular Algebra II. A review of Algebra II topics is followed by an extensive study of polynomial functions including graphing, domain, range, transformations, relative maximum/minimums, and solving for real and imaginary solutions. The class also includes sequences and series, exponential and logarithmic functions, and an emphasis on conic sections including circles, parabolas, ellipses, and hyperbolas. A TI83 or higher graphing calculator is used.

Pre-Calculus/Trigonometry Honors (M2564H) or Pre-Calculus Trigonometry Honors Dual Credit (M256HD)
2 semesters, 2 credits
Dual Credit: MA 15300 and MA 15400 PNW
***Recommended*: Algebra II Honors**
This course is designed for college-bound students who can learn at a faster pace. A review of Algebra II Honors topics is followed by a study of polynomial functions. An extensive look at trigonometry is included. This study includes a rigorous look at the trigonometry topics listed above. A study of the conic selections listed above is also included. A study of matrices and determinants, sequences and series, and permutations and combinations is also included. A TI83 or higher graphing calculator is used.

Trigonometry (M25660) Or Trigonometry Dual Credit (M2566D)
1 semester, 1 credit
Dual Credit: MA 15400 PNW
Recommended: Algebra II
Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, and finance (and nearly all other STEM disciplines). Students will also advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. A TI83/TI84 or higher graphing calculator are required. No TI30, TI36, or Casio calculator will be allowed on any assessment.

AP Calculus AB (M25620)
2 semesters, 2 credits
Quantitative Reasoning Course
AP Calculus AB introduces the topics of differential and integral calculus of a single variable. This course is equivalent to 20 weeks of college calculus. Major topics to be covered: limits and continuity, derivative formulas, detailed graphing and analysis of functions, applications of calculus concepts to real- world story problems, integration formulas, area under a curve, volume of solids, and trigonometric, exponential, and logarithmic applications. Students taking this course will be required to ha.ve a graphing calculator (TI 84 preferred). The curriculum is aligned to the College Board guidelines, with actual AP questions used as a guide. This course prepares the student to take the AP Calculus AB exam in May. A student may be rewarded one semester of college credit based on their exam score. Credit is awarded at the discretion of the college

Calculus I (M2527D)
2 semesters, 2 credits
Dual Credit: MA 16300 PNW
***Recommended*: Pre-Calculus/Trig Honors**
Introduces the topics of differential and integral calculus of a single variable. Major topics to be covered: limits and continuity, derivative formulas, detailed graphing and analysis of functions, applications of calculus concepts to real- world story problems, integration formulas, area under a curve, volume of solids, and trigonometric, exponential, and logarithmic applications. Students taking this course will be required to ha.ve a graphing calculator (TI 84 preferred).

AP Calculus BC (M25720)
2 semesters, 4 credits
Quantitative Reasoning Course
***Recommended*: Pre-Calculus/Trig Honors and teacher recommendation**
AP Calculus BC is an extension of AP Calculus AB. This course is equivalent to 30 weeks of college calculus. It includes all the topics listed for AP Calculus AB plus advanced integration techniques, solving logistic differential equations, polynomial approximations and series, and parametric, polar and vector functions applications. Students taking this course will be required to have a graphing calculator (TI 84 preferred). The curriculum is aligned to the College Board guidelines, with actual AP questions used as a guide. This course prepares the student to take the AP Calculus BC exam in May. A score will be received for the AP Calculus BC exam as well as a score for the AP Calculus AB exam. A student may be rewarded one or two semesters of college credit based on their exam score. Credit is rewarded at the discretion of the college. This course is double-blocked and meets daily.

Calculus II (M2544D)
2 semesters 2 credits
Dual Credit: MA 16400 PNW
***Recommended*: Pre-Calculus/Trig Honors and teacher recommendation**
Introduces the topics of differential and integral calculus of a single variable. Major topics to be covered: limits and continuity, derivative formulas, detailed graphing and analysis of functions, applications of calculus concepts to real- world story problems, integration formulas, area under a curve, volume of solids, and trigonometric, exponential, and logarithmic applications. In addition, this course moves into advanced integration techniques, solving logistic differential equations, polynomial approximations and series, and parametric polar and vector functions applications. Students taking this course will be required to ha.ve a graphing calculator (TI 84 preferred). This course id double-blocked and meets daily.

Probability and Statistics (M25460)
1 semester, 1 credit
***Recommended*: Algebra II**
This course is intended for students who desire a mathematics course which applies statistical techniques and probability in decision-making process. Topics include methods of data collection, organization of data, presentation and graphing of data, hypothesis testing, making inferences from experimental data, descriptive analysis, probability, and probability distributions. Practical examples based on real experimental data, experiments, surveys, and the analysis of the resulting data are stressed. The course may be taken concurrently with Pre-Calculus/Trig or Calculus.

AP Statistics (M25700)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Algebra II Honors**
This course is a more in-depth study of statistics to prepare the student to take the AP exam in May. The curriculum is aligned to the College Board guidelines. This includes four major themes: exploratory analysis, planning and conducting a study, probability, and statistical inference. The use of computer software and graphing calculator technology will be an integral part of the course. Students taking this course will be required to have a TI-83, TI-83+ or TI-84 graphing calculator.

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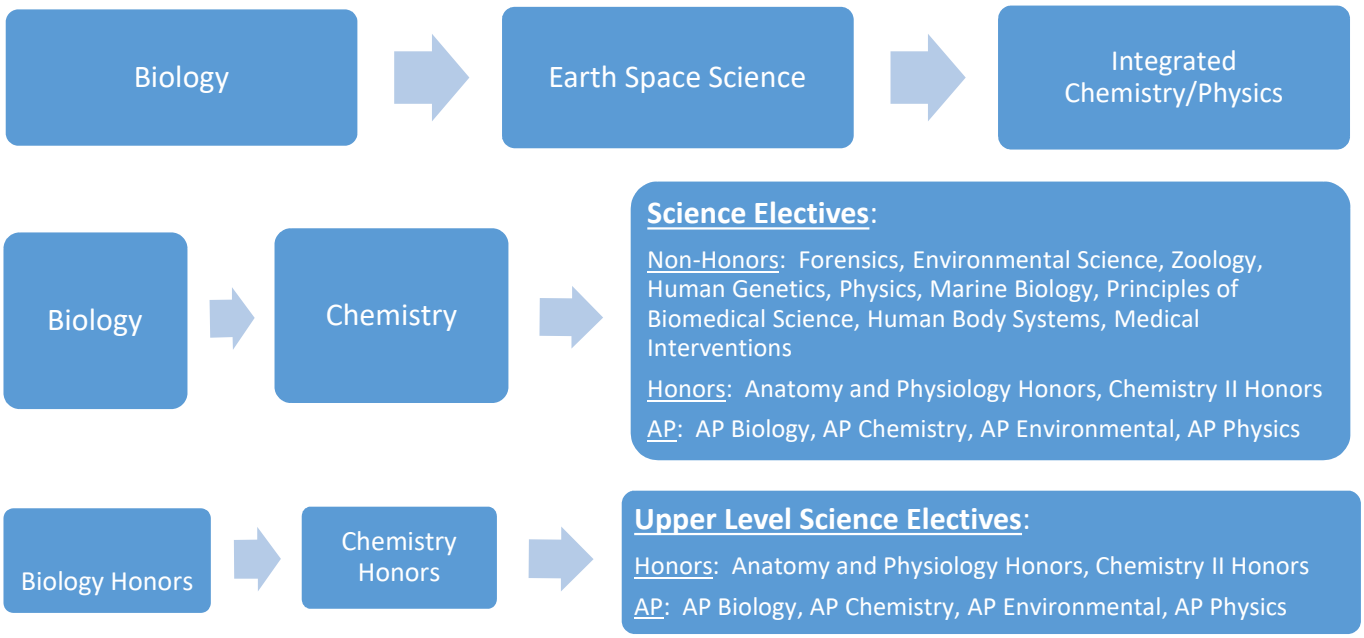
Elementary Statistical Methods (M2544S)
2 semesters, 2 credits
Quantitative Reasoning Course
Dual Credit: PNW STAT 30100 4 credit hours
***Recommended*: Algebra II Honors**
A basic introductory statistics course with applications in various fields and emphasis placed on assumptions, applicability, and interpretation of various statistical techniques. Subject matter includes frequency distributions, descriptive statistics, elementary probability, normal distribution applications, sampling distribution, hypothesis testing and linear regression. Students taking this course will be required to have a TI-83, TI-83+ or TI-84 graphing calculator.

SCIENCE

SCIENCE *Course Sequencing*



ACP= Advanced College Project

Biology I (S30240)
2 semesters, 2 credits
Biology I is a required Core 40 science course for all Indiana students. The course will explore topics in biochemistry (elements and compounds as they relate to living organisms), cell structure, developmental biology, organism structure and system regulation, genetics, ecology and evolution. Course activities include lecture, lab activities, video presentations, demonstrations and student projects. Students will be required to complete the Core 40 test as prescribed by the state of Indiana as part of the assessment activities.

Biology I Honors (S3024H)
2 semesters, 2 credits
***Recommended*: Grade of A or B in Adv. Science 8**
Biology Honors functions as a Biology course in life sciences and is designed to help prepare students to take AP Biology. It is recommended for those who want a more challenging and in depth course than would be offered in Biology I. The course will explore topics in biochemistry (elements and compounds as they relate to living organisms), cell structure, developmental biology, organism structure and system regulation, genetics, ecology and evolution. In addition, there is an in-depth study of selected biological topics, with an emphasis on the molecular aspects of biology throughout the course. Course activities include lecture, inquiry-based lab activities, video presentations, demonstrations and student projects. Students will be required to complete the Core 40 test as prescribed by the state of Indiana as part of the assessment activities.

Chemistry I (S30640)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Biology I and Algebra I**
Concurrent Enrollment: Geometry or Algebra II
Chemistry I is a Core 40 class and deals with topics such as matter, atomic structure, chemical bonding, radioactivity, chemical composition, reactions, behavior of gases and acids/bases. Laboratory experiments reinforce concepts and principles discussed in the classroom. Mathematical principles and problem solving skills are applied to many concepts. This course will provide the student with an adequate background for enrollment in college level chemistry.

Chemistry Honors (S3064H) Or Chemistry I Honors (ACP) (S30901)
2 semesters, 2 credits
Dual credit optional: C101 and C121 at Indiana University
Quantitative Reasoning Course
***Recommended*: Biology I, Algebra I, and Geometry with grades of B or better or teacher recommendation from Biology I**
Chemistry I Honors is a Core 40 class and includes the topics covered in Chemistry I but to a greater depth. The course is conducted at an elevated pace, and students are expected to have a strong command of mathematical problem solving skills. This course is intended for the college bound student who plans to major in the sciences and needs a strong background in chemistry. Honors Chemistry can be taken with extra laboratory requirements for dual credit through Indiana University, for this option select Chemistry Honors ACP-1. Dual Credit has a prerequisite of Algebra I.

Chemistry II Honors (S30660)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Chemistry I Honors (B or better) Algebra II Honors**
Concurrent Enrollment: Pre-Calculus/Trig
This course will cover the following topics: components of matter, calculations, chemical reactions, gases, thermo chemistry, atomic structure, electron configurations and periodicity, bonding and molecular geometry, and intermolecular forces. The second semester of the course will also include an introduction to organic chemistry (the study of carbon compounds) so students can register for second semester only. Topics will include the naming of organic compounds, analysis of their structures, and an introduction to the reactions which are basic to all organic compounds. Laboratory experiments will be used to a great extent in this course.

AP Biology (S30200)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Biology I Honors and Algebra II Honors with grades of B or better, Honors Chemistry with grade B or better and Concurrent Enrollment in Algebra II Honors or higher**
Minimal Concurrent Enrollment: Chemistry Honors and Geometry Honors
Advanced Placement Biology is a rigorous course equivalent to first-year college biology. College credit may be earned by passing the AP Biology exam with a score of 3, 4, or 5. The course builds on topics covered in Biology and adds more in-depth study of the biochemical aspects of biology, as well as topics in population biology and ecology. AP Biology is conducted at an elevated pace requiring additional classroom time. Students are expected to have strong mathematical skills and work ethic. This course is intended for the college bound student who plans to major in the sciences and needs a strong background in biology. Such students are typically considering exploring a career that requires acceptance into a graduate level professional college, such as medical, veterinary or dental school. Students will complete a test in May that may be used by colleges to award credit in college level biology. The exam is paid for by the state of Indiana. Juniors and seniors may be eligible to earn three college credits by taking this course.

AP Chemistry (S30600)
2 semesters, 4 credits
Quantitative Reasoning Course
Recommended: Chemistry Honors with a grade of B or better or teacher recommendation from Chemistry
Concurrent Enrollment: Pre-Calculus/Trig Honors or AP Calculus
Advanced Placement Chemistry is a rigorous, calculation-based, lab-intensive course equivalent to first-year college chemistry. College credit may be earned by passing the AP Chemistry exam with a 4 or 5. This course builds on topics covered in Chemistry and adds solutions, equilibrium, kinetics, thermodynamics, organic chemistry, and chemical reactivity. AP Chemistry is conducted at an elevated pace requiring additional classroom time. Students are expected to have strong mathematical skills and work ethic. This course is intended for the college bound student who plans to major in the sciences and needs a strong background in chemistry. Students will complete a test in May that may be used by colleges to award credit in college level chemistry. This exam is typically paid for by the state of Indiana. This course is double-blocked and meets for two consecutive periods.

AP Environmental Science (S30120)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Recommended B or better in Biology and Chemistry and Algebra I at a minimum; B or better in AP Human Geography**
Environmental Science, Advanced Placement is a course based on content established by the College Board. Students enrolled in AP Environmental Science investigate the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study, yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. Students are encouraged to take the AP Environmental Science exam in May.

AP Physics 1: Algebra-Based (S30800)
2 semesters, 2 credits
Quantitative Reasoning Course
***Prerequisite*: Algebra II**
AP Physics 1 is the equivalent of a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It also introduces electric circuits. The course will prepare students for taking the College Board Entrance Examination tests, Physics 1. It is also a college preparatory course intended for future science and/or engineering majors. The content covered in this course will mirror content discussed in the first semester of most college Physics courses. Students are strongly encouraged to take the AP Physics 1 exam in May.

AP Physics 2 (S30810)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: AP Physics I and Pre-Calculus (may be concurrent)**
This course is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics. Counts as a science course for all diplomas. Students are strongly encouraged to take the AP Physics 2 exam in May.

Earth & Space Science (S30440)
2 semesters, 2 credits
***Recommended*: Selection process**
Earth and Space Science I is a course focused on the following core topics: study of the earth's layers; 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. This course is designed to support sophomore students with limited math and will transition students into Integrated Chem/Physics (ICP) their junior year. (Note: This is not considered a lab science for PWL and IUB.)

Environmental Science (S30100)
1 semester, 1 credit
Quantitative Reasoning Course
***Recommended*: Biology and Chemistry**
Environmental Science is an elective that should be taken by any student that has successfully passed biology and chemistry. Any 10th grade student interested in taking this course should talk to their current science instructor for a recommendation to take this class. This class has many labs, projects, and uses technology in a variety of ways. Students are expected to read many scientific articles and research a variety of environmental issues and topics and be able to discuss their findings. This course uses knowledge from many scientific disciplines and ties it to how humans influence the environment.

Forensic Science: Advanced Science, Special Topics (S3092F)
1 semester, 1 credit
***Recommended*: Biology, Chemistry I, Algebra I and Geometry with grades of C or better**
This course will serve as an introduction to forensics and will bring together all of the above sciences and math course topics by giving students the opportunity to apply their knowledge base to real world situations. Students will use hands-on lab experiments and case studies to investigate many aspects of crime scene analysis including crime scene reconstruction, evidence recording and collection, glass analysis, fingerprint analysis, trace hair and fiber analysis, document/handwriting analysis, DNA profiling and serology. Guest speakers in this field will give students a feel for the career opportunities that this area of study provides.

Human Genetics: Advanced Science (S3092H)
1 semester, 1 credit
***Recommended*: Biology and Algebra I (Grades of B or better recommended)**
This course will explore topics in cell division, development, transmission genetics, molecular genetics, mutation, cancer, genomics, biotechnology, population genetics, and evolution. Moral and ethical issues surrounding new technology will be addressed. Course activities include power point lectures, lab activities, video presentations, demonstrations, simulations, and student projects.

Integrated Chemistry-Physics (S31080)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Biology I**
Integrated Chemistry-Physics is a Core 40 course intended for the student planning to attend a technical school or college with intent to major in a non-science area. This course is intended for students who are not going to take, or are not yet ready, for Chemistry I. All concept material is reinforced through a hands-on laboratory exercise or activity to model skills that the students will need to apply moving forward. 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. The following core topics: motion and energy of macroscopic objects; chemical, electrical, mechanical and nuclear energy; properties of matter; transport of energy; bonding; reactions; magnetism; energy production and its relationship to the environment and economy.

Marine Biology I: Advanced Science, Special Topics – SUMMER COURSE (S3092M)
1 semester, 1 credit
***Recommended*: Biology I or Biology I Honors, Incoming 10, 11 & 12**
Approximately 18+ hours of classroom instruction will take place two weeks before the trip to Marine Lab. Approximately 70+ hours will be spent in laboratory and other learning situations during the six-day trip to Marine Lab in Florida. Students must see Mr. J. Correa and fill out an application form in order to be considered for this course.

Physics I (S30840)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Biology, Alg. I, and Geometry with grades of C or better.**
Concurrent enrollment: Algebra II
This course offers a conceptual approach to all aspects of physics, with less emphasis on the mathematical aspects. Problem solving skills will be utilized during the course. It includes the study of vectors, mechanics, heat, light, sound, electricity, and magnetism. This course is highly recommended for college bound students who plan to major in a science related area.

Principles of Biomedical Science- PLTW (S52180)
2 semesters, 2 credits
***Recommended*: Biology I or Concurrent Enrollment**
PLTW Principles of Biomedical Sciences provides an introduction to this field through "hands-on" projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. The course is designed to provide an overview of all courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses. **This course is part of the Biomedical Sciences and Technology Pathway. This CTE course will require the student's social security number.**

Human Body Systems- PLTW (S52160)
2 semesters, 2 credits
***Recommended*: Principle of Biomedical Science**
PLTW Human Body Systems is a course designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory and nervous) at rest and under stress, and observe the interactions between the various body systems. Student use appropriate software to design and build systems to monitor body functions. **This course is part of the Biomedical Sciences and Technology Pathway. This CTE course will require the student's social security number.**

Medical Interventions- PLTW (S52170)
2 semesters, 2 credits
***Recommended*: Principle of Biomedical Science**
PLTW Medical Interventions is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions. Lessons will cover the history of organ transplants and gene therapy with additional reading from current scientific literature addressing cutting edge developments. **This course is part of the Biomedical Sciences and Technology Pathway. This CTE course will require the student's social security number.**

Anatomy & Physiology Honors (ACP) (S5276H)
2 semesters, 2 credits
Dual Credit: Bio P130/N213 Indiana University Bloomington
***Recommended*: Biology and Chemistry (grades of B or better recommended for all classes)**
This course is an in-depth study of the human body in anatomy (structure) and physiology (function). All of the major body systems will be covered, as well as pathological conditions that can affect them. Classroom work is supplemented with laboratory exercises encompassing both analysis and dissections, including dissections of rats, fetal pigs, and various body organs. The course will be beneficial to those students who will need to take anatomy as a prerequisite for acceptance into a graduate level program or as a requirement for a degree in healthcare or medical field such as nursing, allied health, physical therapy, medicine or dentistry. Juniors and Seniors may be eligible to earn 5 college credits by taking this course. (P130 Human Biology – 4 credits and N213 Human Biology Lab – 1 credit). **This CTE course will require the student's social security number.**

Zoology: Advanced Science, Special Topics (S3092Z)
1 semester, 1 credit
***Recommended*: Biology with grade of B or better, Rec. of Bio I teacher**
This course will include an overview of the various groups of organisms within the vertebrate phylum of the animal kingdom and will take a comparative anatomy approach to illustrate the differences between major groups within the kingdom. Students will learn lab skills by dissecting representative organisms throughout the course and will complete a research project regarding an endangered species or a specific animal. A strong background in biology is expected as students will build on previously covered life science topics. Due to the extensive amount of time spent in lab activities, students will need to have demonstrated the ability to work on their own in a responsible manner in a lab setting during prior Science Dept. courses.

INTERDISCIPLINARY – AP CAPSTONE

AP Capstone™ is a diploma program from the College Board based on two yearlong AP courses: AP Seminar and AP Research.

Rather than teaching subject-specific content, these courses develop students' skills in research, analysis, evidence-based arguments, collaboration, writing, and presenting. Students who complete the two-year program can earn one of two different AP Capstone awards, which are valued by colleges across the United States and around the world. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing receive the AP Capstone Diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams receive the AP Seminar and Research Certificate.

AP Seminar (I05520)
2 semesters, 2 credits
Project Based Learning Course, Grade 10-12, Grade 11 recommended
***Recommended*: None**

AP Seminar is an interdisciplinary class based on student-led inquiry. Students will choose to pursue real-world topics and complex issues inspired by their own interests and passions, and will conduct research on those interests. The College Board requires students to analyze multiple perspectives, read a multitude of texts, and synthesize their sources into team and individual oral/visual presentations, after which they will write a research paper to qualify for a passing grade on the AP Seminar Exam. AP Seminar is the first required course that students may take to qualify for the prestigious AP Capstone Diploma. According to the College Board, "Ultimately, [AP Seminar] aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments." Therefore, AP Seminar is a good starting point for anyone interested in the kind of high-level thinking required of college-bound students. This course counts as an Elective for all diploma types. Students are expected to register for the AP Seminar Exam in May.

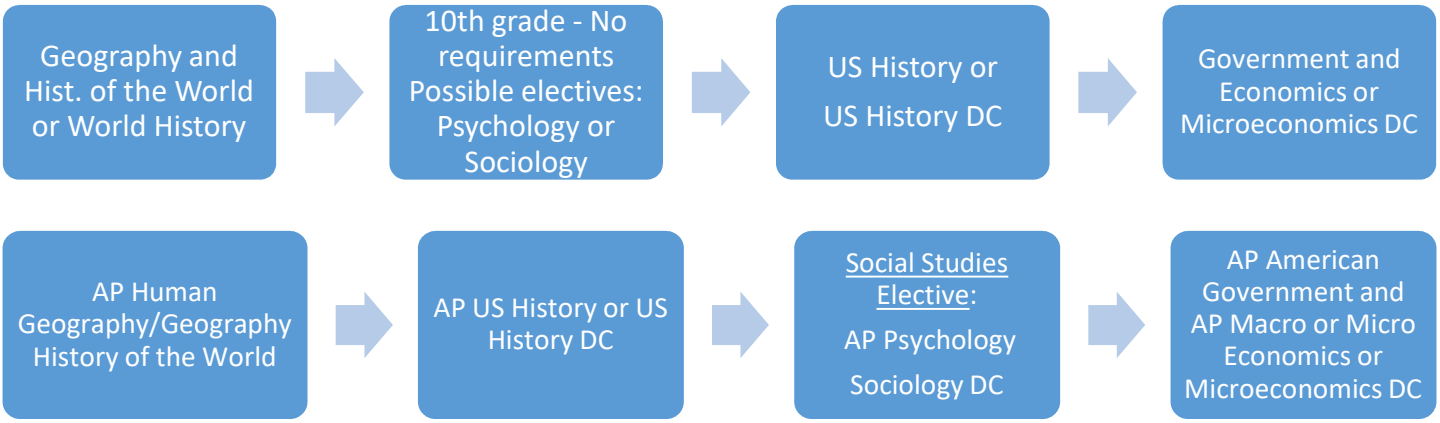
AP Research (I05510)
2 semesters, 2 credits
Project Based Learning Course, Grade 11,12
***Required*: AP Seminar**

AP Research is the second year foundational interdisciplinary course that is unique to the AP Capstone diploma program. AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan and conduct a yearlong research based investigation to address a research question.

In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their process, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. This course counts as an Elective for all diploma types. Students must register for AP Research during AP Registration.

SOCIAL STUDIES

SOCIAL STUDIES *Course Sequencing*



Geography History of the World (H15700)
2 semesters, 2 credits
Geography and History of the World is designed to enable students to use the geographical view of looking at the world and to deepen their understanding of major global themes that have manifested themselves over time. Students will learn how geography shaped the history of the world by analyzing how human activities shaped the Earth's surface, gaining knowledge about the people and cultures of the world through a geographic and historical perspective and executing map skills.

AP Human Geography/Geography History of the World (H15720/H15700)
2 semesters, 4 credits
***Recommended*: B in English**
Advanced Placement Human Geography/Geography & History of the World focuses on the distribution, processes, and effects of human populations on the planet. The course is designed to prepare students for the AP exam and thus focuses on developing their reading, writing, and critical thinking abilities at a college level. Students are expected to engage with this content through the broad themes of physical geography, population, migration, cultural patterns and processes, political geography, economic development, industry, agriculture, and urban geography. Throughout the course of the school year, students will also be covering topics at a basic geography level to expand their knowledge of AP Human Geography. Students taking this course will have the opportunity to earn 4 credits (2 credits for AP Human Geography and 2 for Geography/History of the World).

Ethnic Studies (H15160)
1 semester, 1 credit
Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analysis of the political impact of ethnic diversity in the United States.

Indiana Studies (H15180)
1 semester, 1 credit
Indiana Studies in an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indiana history as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their role in a democratic society will be included and student will examine the participation of citizens in a political process. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

U.S. Government (H15400)
1 semester, 1 credit
***Recommended*: U.S. History**
U.S. Government is the study of the American governmental system. Students who take this class will gain a better understanding of the Constitution, the three branches of the U.S. Government, and the election process at the state and federal levels. Emphasis is placed on the federal government and current national events. This class is required for graduation. Juniors and Seniors may be eligible to take this course as dual credit through Purdue University Northwest and earn college credit while satisfying the Indiana state requirements.

AP U.S. Government and Politics (H15600)
1 semester, 1 credit
***Recommended*: U.S. History**
This course is the most advanced study of the American governmental system offered at Lake Central. Students will participate in an in-depth analysis of the integral parts of the American form of democracy through research, group discussions, projects, and critical-thinking exercises. Outside reading assignments will supplement the textbook and exams will be modeled after the AP U.S. Government and Politics Examination. This class satisfies the state and school corporation requirements for U.S. Government.

U.S. History (H15420) Or U.S. History Dual Credit (H1542D)
2 semesters, 2 credits
Dual Credit: HIST 151 and HIST152 Purdue University Northwest (6 credits)
U.S. History is the study of the United States from the 1850s to today. Emphasis is given to twentieth century events and policies as well as their consequences. This class is required for graduation and must be taken during the junior year. Juniors and Seniors may be eligible to take this course as dual credit through Purdue University Northwest and earn college credit while satisfying the Indiana state requirements. For the U.S. History Dual Credit, the student must have a 2.50 or above GPA.

AP U.S. History (H15620)
2 semesters, 2 credits
***Recommended*: AP Human Geog. and/or World History with a B in English**
AP U.S. History is a survey course that rigorously explores the major themes in American history from the colonial era to the present. DBQ (document-based question) tests are given to prepare students for the College Board AP exam in May. This course challenges and develops a student's research, discussion, analytical, and self-directed learning skills. AP U.S. History meets corporation and state standards, as well as following the expectations of the College Board Advanced Placement program.

Economics (H15140)
1 semester, 1 credit
Quantitative Reasoning Course
***Recommended*: U.S. History**
Economics is the study of the allocation of limited resources among unlimited needs. In this class, students will study different economic ideologies and their goals, prices, taxes, international trade, and the basics of investing. This course is required for graduation and is recommended to be taken during senior year.

AP Macroeconomics (H15640)
1 semester, 1 credit
Quantitative Reasoning Course
***Recommended*: U.S. History**
Students will study macroeconomic concepts and principles throughout the semester in preparation for the College Board's Advanced Placement Examination. This course covers economic concepts that apply to the economic system as a whole. Students will learn how a nation's economic performance is measured and evaluated. Primary emphasis will be in the areas of national performance indicators, such as inflation, employment, GDP and the Fed. Issues of international trade and comparative economic systems will also be examined.

AP Microeconomics (H15660)
1 semester, 1 credit
Quantitative Reasoning Course
***Recommended*: U.S. History**
Students will study microeconomic concepts and principles throughout the semester in preparation for the College Board's Advanced Placement Examination. This course covers many concepts that apply to individual consumers and firms. The primary emphasis of study will focus on the product market (supply and demand) and the factors market. The government's role in promoting competition and fairness in the market will also be examined. Economic graphs will be constantly examined and applied to concepts explained in this course.

Microeconomics- DC (H1574)
1 semester, 1 credit
Quantitative Reasoning Course
***Recommended*: U.S. History**
Dual Credit PNW Econ 25100 3 Credits
Students will study microeconomic concepts and principles. This course covers many concepts that apply to individual consumers and firms. The primary emphasis of study will focus on the product market (supply and demand) and the factors market. The government's role in promoting competition and fairness in the market will also be examined. Economic graphs will be constantly examined and applied to concepts explained in this course.

Psychology (H15320)
1 semester, 1 credit
Psychology is the study of human behavior. Students who take this class will gain a better understanding of their own behavior and develop insight into the behavior of others. This course is an introduction to psychology and will provide background that will be useful in college-level courses.

AP Psychology (H15580)
2 semesters, 2 credits
Advanced Placement Psychology is the most advanced study of psychology offered at Lake Central High School. The course is designed for students who want to prepare for the AP Psychology exam. Students will learn many psychological facts, principles, and phenomena associated with each of the major subfields within the study of psychology through research, group discussions, projects, and critical-thinking exercises. Students are to expect a heavy load of reading and writing. This course will meet the state and corporation requirements and follow the expectations of the College Board and Advanced Placement programs.

Sociology (H15340)
1 semester, 1 credit
Sociology is the study of human groups. Emphasis is placed on basic concepts used in sociological study as well as the nature of society, culture, social problems, and various social institutions such as the family, education, and religion. Although this is an elective course it requires participation in class discussion, activities, and students are expected to read the textbook. This course is an introduction to sociology and will provide background that will be useful in college-level courses.

Topics in History: Contemporary U.S. History (1945-present) (H15380)
1 semester, 1 credit – Project Based Learning Course
***Recommended*: U.S. History**
Topics in History: Contemporary U.S. History is an examination of the political, social, cultural, and intellectual events that shaped America during the last 50 years. The instructor will combine audio, video, lecture, group discussion, and interviews to examine the great watersheds of the last 60 years. The course will begin with the latter years of WWII and progress to the present.

WORLD LANGUAGES

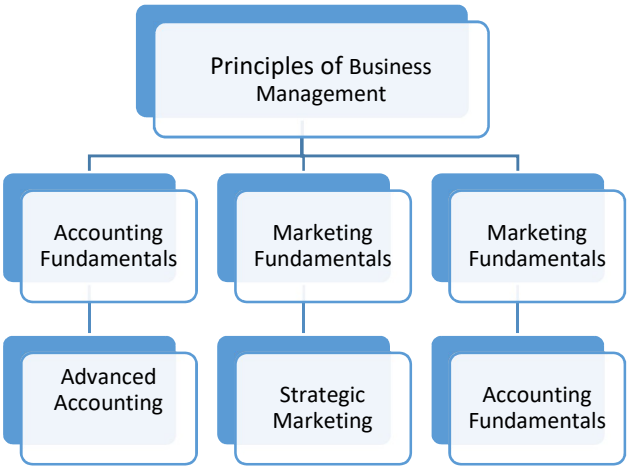
Level 1 World Languages
French I (F20200), German I (F20400), Spanish I (F21200)
2 semesters, 2 credits
Recommended Prerequisite: C or better in previous English course
Level 1 World Language courses are based on Indiana's Academic Standards for World Languages. They introduce students to effective strategies for beginning language learning and to various aspects of the target language culture. These courses encourage interpersonal communication through speaking and writing, and emphasize the development of reading and listening comprehension skills. Additionally, students will examine the practices, products, and perspectives of the target culture. These courses further emphasize making connections across content areas and the application of understanding the target language and culture outside of the classroom.

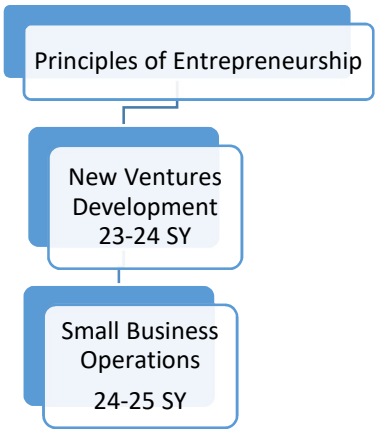
Level 2 World Languages
French II (F20220), German II (F20420), Spanish II (F21220)
2 semesters, 2 credits
Recommended Prerequisite: C or better in Level 1 World Language
Level 2 World Language courses, based on Indiana's Academic Standards for World Languages, build upon effective strategies for language learning by encouraging the use of the language and cultural understanding for self-directed purposes. These courses encourage interpersonal communication through speaking and writing, and emphasize the development of reading and listening comprehension skills. Students will address the presentational mode by presenting prepared material on a variety of topics. Additionally, students will describe the practices, products, and perspectives of the target culture. These courses further emphasize making connections across content areas and the application of understanding the target language and culture outside of the classroom.

Level 3 World Languages
French III Honors (F20240), German III Honors (F2044H), Spanish III Honors (F2124H) Spanish III (F21240)**
2 semesters, 2 credits –Project Based Learning Course**
Recommended Prerequisite: C or better Level 2 World Language
Required Prerequisite for Honors: Level 2 World language grade C or better, or teacher recommendation
Level 3 World Language courses, based on Indiana's Academic Standards for World Languages, build upon effective strategies for language learning by facilitating the use of the language and cultural understanding for self-directed purposes. These courses encourage interpersonal communication through speaking and writing, and emphasize the continued development of reading and listening comprehension skills. Students will address the presentational mode by presenting student-created material on a variety of topics. Additionally, students will continue to develop understanding of the target 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 as the application of understanding the target language and culture outside of the classroom. Honors level courses are more rigorous than regular level courses.

Level 4 World Languages
French IV Honors (F20260), German IV Honors (F2046H), Spanish IV Honors (F2126H72410) Spanish IV (F21260)**
2 semesters, 2 credits - **Project Based Learning Course
Recommended Prerequisite: Level 3 World Language
Required Prerequisite for Honors: Level 3 World language grade C or better, or teacher recommendation
Level 4 World Language Courses are based on Indiana's Academic Standards for World Languages. These courses provide 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. Additionally, students will continue to develop understanding of the target culture through explaining factors that influence the practices, products, and perspectives of the target 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 target language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native speakers. Honors level courses are more rigorous than regular level courses.

BUSINESS





Personal Financial Responsibility (B45400)
1 semester, 1 credit GRADUATION REQUIREMENT
Course taken Junior Year or Senior Year if the student needs a Quantitative Reasoning Course
Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals; identify sources of income, savings, and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt.

Accounting Fundamentals (B45240)
2 semesters, 2 credits
Students learn skills that can be used to obtain entry-level jobs or to start one's own business, such as tax preparation, record keeping, bank reconciliation, computer data entry, and payroll preparation. The course can also be used as a stepping stone toward securing a career in accounting, investing, or any major in business. Any student planning to major in business in college is highly recommended to complete at least one year of accounting. This course is part of the Accounting Pathway. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Advanced Accounting (B45220)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Accounting Fundamentals**
Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting covered in introduction to Accounting. Emphasis on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making. Students are required to take Accounting Fundamentals prior to enrollment in this course. This course is not eligible for the honors weighted grade point. This course is part of the Accounting Pathway. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Digital Applications and Responsibility (B45280)
1 semester, 1 credit
Dual Credit: CINS 101 Ivy Tech
This course is designed for secondary school students to develop real-life, outcome-driven approach skills for digital citizenship, basic computer operations, keyboarding, application software (word processing, spreadsheets, multimedia applications, databases), and career exploration. This course promotes skills that can be applied across the curriculum and offers preparation relevant to 21st century skills and postsecondary education. Students who successfully complete this course may be eligible for dual credit from Ivy Tech College. Student skills may be enhanced by participation in Digital Applications 2 or in the Business Professionals of America Club at Lake Central. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Digital Applications and Responsibility II (B45282)
1 semester, 1 credit
***Recommended*: Digital Applications I**
Expansion of MS Office Professional software training provides students with the knowledge and skills necessary for success in college and the business world. Integration of application software, group collaboration, decision-making and problem solving activities helps students gain confidence in using technology. The benefits of the skills learned are lifelong. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Business Law and Ethics (B45600)
1 semester, 1 credits
Dual Credit: BSN 102 Ivy Tech
Know your rights! Business and Personal Law gives students the edge in understanding the fundamentals of the law in our society. In this class, students experience the law hands-on. Lively class discussions on current events, group work, case studies, and internet projects make for a relevant and lively classroom atmosphere. During the course of the semester, students learn the details of the law at home and in the workplace. The highlight of the course is the mock trial at the end of the semester. Students have the opportunity to test their knowledge by acting as attorneys, witnesses, and researchers in reenacting a real trial. Business Law and Ethics provides an overview of the legal system in the business setting. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Principles of Business Management (B45620) * *New Course Description*****
2 semesters, 2 credits
Dual Credit: BSN 102 Ivy Tech
***Recommended*: Digital Applications**
Principles of Business Management examines business ownership, organizational 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. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Principles of Entrepreneurship (B71540) ***New Course***
2 semesters, 2 credits
Dual Credit: Ivy Tech
***Recommended*: None**
Taken concurrently with New Ventures Development
Principles of Entrepreneurship focuses on students learning about their own strengths, character and skills and how their unique abilities can apply to entrepreneurship, as well as how an entrepreneurial mindset can serve them regardless of their career path. Students will learn about the local, regional and state resources and will begin to understand and apply the entrepreneurial process. The course helps students to identify and evaluate business ideas while learning the steps and competencies required to launch a successful new venture. The course helps students apply what they have learned from the content when they write a Personal Vision Statement, a Business Concept Statement, and an Elevator Pitch. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

New Ventures Development (B71480) ***New Course***
2 semesters, 2 credits
Dual Credit: Ivy Tech
Taken concurrently with Principles of Entrepreneurship
New Venture Development is targeted to students interested in creating and growing their own businesses. The course will focus on key marketing strategies particularly relevant for new ventures. Students will apply marketing concepts to entrepreneurial company challenges, which include creating and nurturing relationships with new customers, suppliers, distributors, employees and investors; and understand the special challenges and opportunities involved in developing marketing strategies "from the ground up." **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Marketing Fundamentals (B59140)
2 semesters, 2 credits
Required Prerequisite: Principles of Business Management
Want to be a better consumer and learn the fundamentals of marketing? In Marketing Fundamentals, you can do both! The areas of product development, branding, merchandising, and consumer satisfaction are integral parts of the curriculum. Student activities include: package design, logo creation, sampling, multimedia advertisement design and creation, and improved consumer awareness. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Sports and Entertainment Marketing (B59840)
2 semesters, 2 credits
Sports and Entertainment Marketing is a marketing course providing students with the opportunity to apply marketing principles in the fields of sports, recreation, and entertainment. Students will produce and market activities for athletic and entertainment programs at the high school and within the private sector. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Strategic Marketing (B59180)
2 semesters, 2 credits
Strategic Marketing builds upon the foundation of marketing and applies the functions of marketing at an advanced level, Students will study the basic principles of consumer behavior and examine the application of theories from psychology, social psychology, social media and economics. The relationship between consumer behavior and marketing activities is reviewed. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Merchandising (B59620)
2 semesters, 2 credits
Required: **Marketing Fundamentals**
Merchandising is a specialized marketing course providing instruction of marketing practices that support the sale of products to retail consumers. Emphasis is placed on oral and written communication, problem solving and critical thinking skills as they relate to product design, selling, pricing, distribution, retail promotion, visual merchandising, retail cycles, retail theories, and career opportunities in the retail industry. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Entrepreneurship and New Ventures Capstone (B59660)
2 semesters, 2 credits – Project Based Learning Course
Dual Credit: ENTR 101 and ENTR 105 Ivy Tech (6 college credits)
***Recommended*: Business Management or Marketing Fundamentals**
Entrepreneurship and New Ventures Capstone introduces entrepreneurship, and develop skills and tools critical for starting and succeeding in a new venture. The entrepreneurial process of opportunity recognition, innovation, value proposition, competitive advantage, venture concept, feasibility analysis and "go to" market strategies will be explored through mini-case studies of successful and unsuccessful entrepreneurial start-ups. Additionally, topics of government and legal restrictions, intellectual property, franchising location, basic business accounting, raising startup funding, sales and revenue forecasting, and business plan development will be presented through extensive use of word processing, spreadsheet and presentation software. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Web Design (B45740)
1 semester, 1 credit
This course is an introduction to web development with HTML and CSS. In this course, students will learn about key technologies and standards behind the internet and world wide web. Students will develop website projects that meet current web standards and industry best practices using modern tools and techniques. Students will learn to code Websites which include tables, links, graphics, Web forms, visual effects, animation, video and audio. The focus of this course is on the use of basic HTML and CSS as a technical foundation for later coursework in computer science.**This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Principles of Computing (B71830) – **_New Course_**
2 semester, 2 credit
Recommended: **None**
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 will include operating systems, database technology, cybersecurity, cloud implementation 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.

Computer Science I (B48010)
2 semesters, 2 credits
Dual Credit: C102 and I101 IU Bloomington
Quantitative Reasoning Course
***Recommended*: Principles of Computing, Algebra I (recommended)**
Computer Science I is a full-year course designed to provide students with a comprehensive hands-on experience in computer programming using Python. Students will earn a total of 7 IU credits. 3 from CS 101 Fundamentals of Computing, and 4 from INFO I101 Intro to Informatics and Computing. In CS 101 the main focus is to give students a practical understanding of computing to become well-informed citizens and professionals in the computing age. Topics include a basic study of computational thinking, computer security, big data, artificial intelligence, and current trends in computing. In INFO I101 the main focus is to introduce students to the basic concepts in the field of Informatics and Computer Science including problem solving techniques, information theory, career panels, and research areas. Students in Computer Science I will also earn credits and take AP Computer Science Principles, description below. Both courses will be taught during the same class time. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

AP Computer Science Principles (B45750)
2 credits, 2 semesters
Recommended: **Principles of Computing, Algebra I (recommended)**
AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and careers. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Computer Science II (B52360)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Principles of Computing, Computer Science II**
Computer Science II is a full-year course designed to provide students with a comprehensive hands-on experience in computer programming using C++. The course teaches students about advanced data structures such as maps, queues and sets, while applying them in larger, real-world assignments and projects. The study of C++ provides an understanding of the fundamentals of procedural program development and emphasizes logical program design involving user-defined functions and standard structure elements.
This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.

Computer Science III: Cybersecurity Capstone (B52530)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Computer Science I and Computer Science II**
Cyber Security, a PLTW course, exposes students to the ever growing and far-reaching field of cybersecurity. Students accomplish this through problem based learning, where students role-play and train as cybersecurity experts do. Cybersecurity gives students a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic thinking, computational thinking and especially "outside-the-box" thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security. The course contains the following units of study: Personal Security, System Security, Network Security and Applied Cybersecurity. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

AP Computer Science A (B45700)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Principles of Computing, Computer Science I, Computer Science II, Algebra II**
Computer Science A, is a full-year course designed to provide students with the content established by the College Board using the Java programming language. Topics include: object-oriented program design, program implementation, program analysis, standard data structures, standard algorithms, and computing in context. Computer Science A emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development.
This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.

FINE ARTS

Fine Arts CORE 40 Credit Options

Any course from the following list will satisfy the Fine Arts Course requirement for the Core 40 Diploma.

2-D or 3D Art I(s)
2-D or 3D Art II
2-D or 3D Art III/IV
Ceramics I(s)
Ceramics II(s)
Ceramics III/IV
AP 2-D Art and Design
AP 3-D Art and Design
Student Media

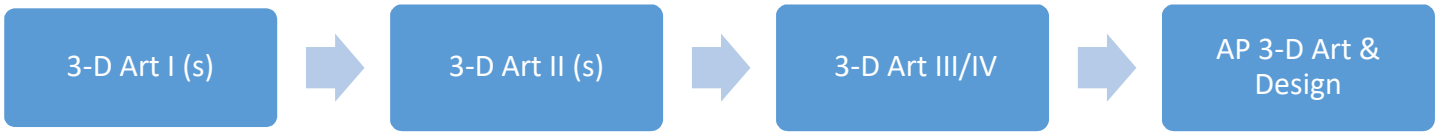
Student Media Honors
Theatre Arts
Theatre Arts II
Theatre Production Mgmt.
Photography
Housing & Interior Design
Junior Treble Choir
Senior Treble Choir
Varsity Choir

Concert Choir
Beginning Concert Band
Symphonic Band
Concert Band
Advanced Concert Band
Wind Ensemble
Instrumental Ensemble I
Instrumental Ensemble II
Jazz I

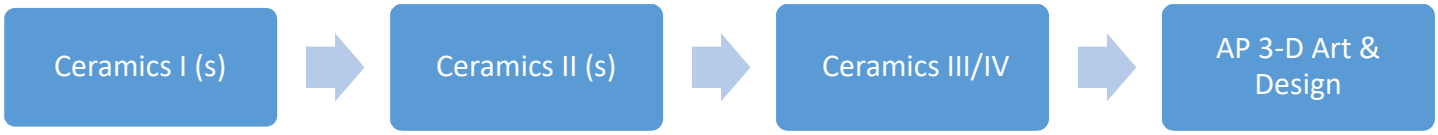
Jazz II
Electronic Music
Music Theory
AP Music Theory
Music History/Appreciation
Hand Bells I
Hand Bells II
Introduction to Guitar

TWO-DIMENSIONAL AP *Course Sequencing*

THREE-DIMENSIONAL AP *Course Sequencing*



CERAMICS (3-D) AP *Course Sequencing*



(s)= Semester Course

2-D Art I (A40000)
1 semester, 1 credit
Art I emphasizes drawing, color theory, and the principles and elements of art. Areas covered are: drawing, painting, printmaking, design, art appreciation, art history, careers, and current trends in art. Students will examine the significance and meaning of their own art, as well as the art done by famous artists. Students will also be taught to think, act and create like an artist. Counts as a Fine Art credit for the AHD.

2-D Art II (A40042)
1 semester, 1 credit
***Recommended*: 2-D Art I**

Students in 2-D Art II build on the sequential learning experiences of 2-D Art I. Areas covered will be based upon student choice as they relate to specific learning targets in fine arts. Students will continue to be introduced to new mediums and concepts but will choose and create based upon the things that interest them. Students will examine the significance and meaning of their own art, as well as the art done by famous artists and current trends in art. .Students will engage in learning experiences that explore art history, art criticism, and studio production, as well as art appreciation, art history, and careers, Students will also be taught to think, act and create like an artist. Counts as a Fine Art credit for the AHD.

2-D Art III/IV (A40043)
2 semesters, 2 credits
***Recommended*: 2-D Art I and II**
2-D Art III/IV provides sequential learning experiences building on the fundamental skills learned in the previous classes. The production of an art portfolio will be discussed as well as art careers. This course is for the serious art student who wants to polish their skills and add to their portfolio. Through student choice and process/project documentation, students will engage in problem solving and self-criticism. Students will continue to think, act and create like an artist. Counts as a Fine Art credit for the AHD.

2-D Art V/VI (A40044)
2 semesters, 2 credits
***Recommended*: 2-D Art I, II, III/IV**
2-D Art V/VI provides sequential learning experiences building on the fundamental skills learned in the previous classes. The production of an art portfolio will be continued as well as art careers. The third year of Art is for the serious art student who wants to polish their skills and add to their portfolio. Problem solving and self-criticism is emphasized. Students will continue to think, act and create like an artist. Counts as a Fine Art credit for the AHD.

AP 2-D Art and Design (A40500)
2 semesters, 2 credits – Project Based Learning Course
Recommended: Recommended 2-D Art I, II and III/IV and Art Teacher recommendation.
This course will meet concurrently with Art V/VI.
AP 2-D Art and Design is a course for students who are serious about developing their portfolio of artwork in a concentrated area through the improvement of technique and design skills. In order to provide additional time for portfolio development, this course may be taken as a two-year extended study with credit awarded in the 2-year course as AP. At the completion of the first year, students have an option to continue into the second year. Focus will be on the quality, concentration, and breadth of work produced. Creative thought is essential, combined with the investigation of concepts, issues, and personal themes and subject -matter through individual research and involved decision making. Students are challenged to become independent thinkers who will contribute inventively and critically to their culture through the making of art. Students will develop ideas according to national standards of performance through an examination of completed portfolio work. Counts as a Fine Art credit for the AHD.

3-D Art I (A40020)
1 semester, 1 credit
Students taking 3-D Art I engage in learning experiences that encompass the study of historical and current trends in art. This information can then be incorporated into their own art. Students will learn how to use a variety of tools and materials to create their personal projects, which include working in the following mediums: sand, clay, wood, fiber, plaster, plastic, wire, glass, glass-fusing, glass slumping, and jewelry making. Counts as a Fine Art credit for the AHD.

3-D Art II (A40060)
1 semester, 1 credit
Recommended: 3-D Art I
Students taking 3-D Art II build on the sequential learning from 3-D Art I while further enhancing their artistic creativity in more technical design ideas and projects. Further study in art history, art theory, and art criticism are incorporated into the curriculum. Counts as a Fine Arts credit for the AHD.

3-D Art III/IV (A40061)
2semesters, 2 credits
Recommended: 3-D Art I, 3-D Art II
Students taking 3-D Art III/IV further enhance their artistic expression and creativity through a more skilled and self-directed approach. Further study in art theory, criticism and current art trends are incorporated into the curriculum. Students may take this course multiple times and receive credit. Counts as a Fine Arts credit for the AHD.

Ceramics I (A40401)
1 semester, 1 credit
This course is an introduction to clay and its properties. Students learn the fundamentals of pinch, coil, and soft slab hand building techniques. Emphasis will be placed on proper construction, surface design, and glaze options. Students will evaluate and self-critique their own work. Counts as a Fine Arts credit for the AHD.

Ceramics II (A40402)
1 semester, 1 credit
Recommended: Ceramics I
This course further explores hand building with an introduction to sculpture, stiff slab and advanced decorating techniques. Students will also learn the fundamentals of wheel throwing with stress on proper technique and skill for success. Emphasis is placed on design aesthetics, more advanced glazing and staining techniques, visual problem solving, art criticism and self-critique. Counts as a Fine Art credit for the AHD.

Ceramics III/IV (A40403)
Project Based Learning Course
2 semesters, 2 credits
Recommended: Ceramics I and Ceramics II
This course is designed to sharpen skill in either (or both) wheel throwing and hand building techniques. An advanced study in surface and glaze analysis, form, function and design is explored. Emphasis is placed on creativity, skill, and craftsmanship. Students may take this course multiple times for credit. Counts as a Fine Art credit for the AHD.

AP 3-D Art and Design (A40520)
2 semesters, 2 credits
Recommended: Ceramics I, Ceramics II, Ceramics III/IV or 3-D Art I, 3-D Art II, 3-D Art III/IV
This course is designed for the advanced level student who is serious about developing their skills with clay. Emphasis will be on the quality, technical skills, investigation and exploration of concepts. Students must be willing to accept the committed challenge of a focused and rigorous art program. This course provides the advanced art student a rewarding opportunity to develop artistic skills while building and preparing a portfolio. This work may then be submitted for evaluation to receive college credit and/or advanced placement credit for a college art course elective. Counts as a Fine Art credit for the AHD.

COMMUNICATIVE ARTS

Theatre Arts (J42420)
2 semesters, 2 credits – Project Based Learning Course
Theatre Arts I is a year-long course for freshmen, sophomores, juniors and seniors. Theater Arts I introduces students to the basics of theater. Students do various activities and exercises that introduce and familiarize them with all aspects of theater. Using the knowledge gained through the study of theatre, students focus on solving problems faced by actors, directors, and technicians. They also refine their abilities to collaborate on performances, and they learn to constructively evaluate their own and others' efforts. Counts as a Fine Art credit for the AHD.

Advanced Theatre Arts (J42400)
2 semesters, 2 credits – Work Based and Project Based Learning Course
***Recommended*: Theater Arts and Completed Application**
Advanced Theater Arts is a year-long course for sophomores, juniors and seniors. Students must have taken Theater Arts I to qualify. Advanced theater teaches students more advanced improvisation, analysis of plays, production work, independent thinking, and self-evaluation of work. This is accomplished by having students create and work in their own theater production companies. They experience all aspects of theater by creating the group, putting together productions, raising funds, and serving the community. Counts as a Fine Art credit for the AHD.

Theatre Production Management (J42480)
2 semesters, 2 credits – Work and Project Based Learning Course
Students enrolled in Theatre Production Management take on the responsibilities associated with the technical rehearsal and presentation of a theater production. Students learn sound, lighting, and rigging equipment; safety and security of the facility; front of house duties; and back of house duties. Students will perform roles in a production such as lighting, spotlight, soundboard, costumes, props, and curtain for Advanced Theatre class productions. In addition, students will be staff for the auditorium director on productions and events. Therefore, some out of class auditorium events will be required to work in exchange for pay. Counts as a Fine Art credit for the AHD.

Journalism: Publication Design (J1080P)
1 semester, 1 credit
This course will look at fundamental concepts of publication design. Students will learn to communicate visual messages clearly in various media. Basic grid design, typography, color theory and effective use of photography will be discussed. Students will use the Adobe Creative Suite to create magazine spreads, advertisements, news sites and other visual presentations.

Journalism: Writing (J1080W)
1 semester, 1 credit
This course will concentrate on the history of journalism, the basics of news elements, newswriting, journalism law and ethics. Students will learn the importance of the media in our society and the First Amendment, as well as knowing their limits to those rights. Students will also master the basic fundamentals of news writing, feature story and opinion writing.

Journalism: Broadcast (J1080B)
1 semester, 1 credit
Memory Card 32 or Higher SD card required for this course.
This course will look at fundamental concepts of broadcast media. Students will learn to communicate visual messages clearly in various media formats. This course will help students form skills necessary to create segments and run a news broadcast and it will cover topics such as journalistic laws and ethics, interviewing, broadcast writing, videography, photography and familiarity with U.S. and world news. Students will also become familiar with editing software to create creative videos.

Photography (J40620)
1 semester, 1 credit-
***Recommended*: Must own a digital camera and memory card**
Digital Photography is an introductory course of photojournalism, specifically the type of photography that meets the requirements for publication. People, still life, action, portraits, photo stories as well as digital technology will be discussed and put into practice. Students will be responsible for their own transportation when shooting assignments and also for the purchase of supplies for personal use. Counts as a Fine Art credit for the AHD.

Student Media (J10860)
2 semesters, 4 credits – Project Based Learning Course
***Recommended*: Intro to Journalism Writing, Broadcast, Design or Photography.**
The purpose of the Publishing staff is to produce journalistically sound student media. All students will learn and apply desktop publishing skills, writing, editing, design, leadership, law and ethics, AP Style, photography, public relations, teamwork and communication skills while contributing to the student newsmagazine, yearbook, online news site and social media feeds. Each student is responsible for his or her own transportation to cover events. After-school work time is required. This course is double-blocked, and meets for two consecutive periods. Counts as a Fine Art credit for the AHD.

Student Media Honors (J1086H)
Advanced Writing and Editing (T30220)
2 semesters, 4 credits – Project Based Learning Course
***Recommended*: 1 year of a Publishing staff. Apply to adviser.**
This course is open to Publication editors only and provides for further study and practice in analyzing information, interviewing, and note taking for the purpose of writing, editing, and publishing student media. Student editors must plan, publish, market and distribute their publications tied to instruction in law and ethics, AP Style and leadership strategies. **This course meets for two class periods. Students in Student Media Honors must take both course periods.** Counts as a Fine Art credit for the AHD.

Student Media Broadcast
2 semesters, 4 credits – Project Based Learning Course
Recommended: Journalism Writing, Broadcast, Design or Photography.
The purpose of the broadcasting staff is to produce journalistically sound student media. All students will learn and apply desktop publishing skills, writing, editing, design, leadership, law and ethics, AP Style, videography, public relations, teamwork and communication skills while contributing to the student Youtube channel, online news site and social media feeds. Each student is responsible for his or her own transportation to cover events. After-school work time is required. Counts as a Fine Art credit for the AHD.

Student Media Broadcast Honors
Advanced Writing and Editing
2 semesters, 4 credits – Project Based Learning Course
Recommended: 1 year of Broadcasting staff. Apply to adviser.
This course is open to broadcast editors only and provides for further study and practice in video news production, visual story-telling, media literacy, and journalism production. Student editors must plan, publish, market and distribute their episodes tied to instruction in law and ethics, AP Style and leadership strategies. **This course meets for two course periods. Students in Student Media Broadcast Honors must take both course periods.** Counts as a Fine Art credit for the AHD.

MUSIC (FINE ARTS)

Symphonic Band (Marching U41600) (Non-Marching U4160N)
***2 semesters, 2 credits Grade: 9* Project Based Learning Course**
***Recommended:* Complete formal instruction at the middle school level.**
This concert band class is open to all students who play a band instrument at an intermediate level. This is a co-curricular course that involves participation during school and outside school. Emphasis is placed on tone, technique development and sight reading. Participation in the ISSMA Solo/Ensemble contest is encouraged. The band performs several times during the year. Private lessons are highly encouraged. Counts as a Fine Art credit for the AHD.

Concert Band (Marching U41680) (Non-Marching U4168N)
Project Based Learning Course
2 semesters, 2 credits Grades: 10-12
***Recommended:* Selection by audition or director permission**
This concert band class is available by audition to students who play a band instrument at an upper intermediate to advanced level and are enrolled in marching band. This is a co-curricular course that involves participation during school and outside school. Emphasis is placed on tone, technique development and sight reading. Advanced performance techniques are emphasized. Participation in the ISSMA Solo/Ensemble contest is encouraged. Serious band literature is selected from a variety of periods in music history. Private lessons are highly encouraged. Counts as a Fine Art credit for the AHD.

Wind Ensemble (Marching U41700) (Non-Marching U4170N)
Project Based Learning Course
2 semesters, 2 credits Grades: 10-12
***Recommended:* Selection by audition or director permission**
This advanced band is considered the top concert band at Lake Central High School. The band represents Lake Central High School in public performances and competitions. Advanced performance techniques are emphasized. This is a co-curricular course that involves participation during school and outside school. Serious band literature is selected from a variety of periods of music history. Private lessons are highly encouraged. Counts as a Fine Art credit for the AHD. Students who are enrolled in the marching band will be placed in Advanced Concert Band or Intermediate Concert Band as assigned by the Director.

Jazz Ensemble (U41640)
Project Based Learning Course
2 semesters, 2 credits Grades: 9-12
This is a co-curricular course that involves participation during school and outside school. Emphasis is placed on tone and technique development and sight-reading skills. Jazz theory and improvisation are included in the course of study. The group performs several times each year. Open to any current band student or former band student. Exceptions would be made for guitarists, bassists or piano players with director approval. Counts as a Fine Art credit for the AHD.

Percussion Ensemble (Marching U42001) (Non-Marching U4200N)
2 semesters, 2 credits Grades: 9-12
This course is co-curricular and involves participation during school, after school, and on weekends. Percussion Ensemble performs music that is graded medium to advanced. All rehearsals, commencement and concerts are required. Students in this class will perform with multiple groups including Beginning Band, Concert Band, Wind Ensemble, and the Lake Central Marching Band. Students are encouraged but not required to take private instrumental lessons, participate in ISSMA solo and ensemble contests, and participate in auditions for All-State Ensembles.

Electronic Music/Music Production (U42020)
1 semester, 1 credit Grades: 9-12
Recommended: Some note reading ability
Students taking this course are provided with a wide variety of activities and experiences to develop skills in the use of electronic media and to incorporate current technology. Instruction is separated into two forms of writing music; composition and music engineering. Students will learn the basic music reading skills while compositing their own various music types within a music notation software. Students will create music within an audio workstation and it is automatically entered into the computer where students can manipulate sound and/or create their own compositions. This class may be taken more than once. Counts as a Fine Art credit for the AHD.

Music Theory I (U42080)
1 semester, 1 credit Grades: 9 -12
This semester class is open to any student in the high school wanting to expand their knowledge of music construction and composition. The materials covered will consist of the following: knowledge of the names of the notes, identification of notes to a piano keyboard, all major and minor key signatures and scales, time signatures, note values, intervals, and understanding of rhythmic figures, aural association to pitch, and the ability to identify the construction of music. Counts as a Fine Art credit for the AHD.

AP Music Theory (U42100)
2 semesters, 2 credits Grades: 10-12
Recommended: Music Theory I
Advanced Placement Music Theory is designed for the able and ambitious high school student who is committed to the close study of music structure and who has the desire and determination to gain advanced placement in music while still in high school. To qualify to enroll in AP Music Theory, the student must successfully complete Music Theory I, or possess a solid background in the skill areas of rhythm and notation reading (bass clef and treble clef) as well as scales and major key signatures. The focus of study is centered on techniques for aural and written analysis of music literature. All students enrolled in the course should take the Advanced Placement Music Theory exam in the spring. Counts as a Fine Art credit for the AHD.

Music History/Appreciation (U42060)
1 semester, 1 credit
Students taking this course will receive instruction designed to explore music and major musical style periods through understanding music in relation to both Western and non-Western history and culture. Activities include, but are not limited to, 1) listening to, analyzing, and describing music, 2) evaluating music and music performances, and 3) understanding relationships between music and the other arts as well as disciplines outside of the arts. Counts as a Fine Art credit for the AHD.

Hand Bells I: Instrumental Ensemble (U41624)
2 semesters, 2 credits Project Based Learning Course
***Recommended*: Some note reading ability**
Students will study music reading, bell literature, and techniques. Members must attend all choir concerts. Counts as a Fine Art credit for the AHD.

Hand Bells II: Instrumental Ensemble (U41625)
2 semesters, 2 credits Project Based Learning Course
***Recommended*: Selection by Director**
Intermediate skill level is required to participate in this class. Members must attend all concerts. Music reading is required. Counts as a Fine Art credit for the AHD.

Introduction to Guitar (U42000)
1 semester, 1 credit Grades: 9-12
This course will introduce students to playing the guitar. The class will stress technique, music theory in regard to note and tablature reading, critical listening skills, improvisation, and performance of beginning guitar literature. Instruments are provided and no prior musical experience is necessary. Counts as a Fine Art credit for the AHD.

CHOIR (FINE ARTS)

Junior Treble: Beginning Chorus (U41820)
2 semesters, 2 credits Project Based Learning Course
Beginning treble choral ensemble. Focus will be on learning the fundamentals of singing and reading music. Sopranos and altos entering choir for the first time should be placed here (unless the director has emailed their guidance counselor saying differently). Counts as a Fine Art credit for the AHD.

Varsity Choir: Intermediate Chorus (U41860)
2 semesters, 2 credits Project Based Learning Course
Beginning mixed choral ensemble. Focus will be on learning the fundamentals of singing and reading music. Basses and tenors entering choir for the first time should be placed here (unless the director has emailed their guidance counselor saying differently). Counts as a Fine Art credit for the AHD.

Senior Treble: Advanced Chorus (U41880)
2 semesters, 2 credits Project Based Learning Course
Selection by Director
Advanced treble choral ensemble. Students entering are expected to be fluent in reading music and sight singing. Counts as a Fine Art credit for the AHD.

Concert Choir: Choral Chamber Ensemble (U41800)
2 semesters, 2 credits Project Based Learning Course
Selection by Director
Advanced mixed choral ensemble. Students entering are expected to be fluent in reading music and sight singing. Counts as a Fine Art credit for the AHD.

FAMILY AND CONSUMER SCIENCES (FACS)

Many courses in Family and Consumer Sciences are Career-Technical Education (CTE) courses and will require a student's social security number be provided.

Adult Roles & Responsibilities (C53300)
1 semester, 1 Credit
Adult Roles and Responsibilities is recommended for all students as life foundations and academic enrichment, and as a career sequence course for students with interest in family and community services, personal and family finance, and similar areas. This course builds knowledge, skills, attitudes, and behaviors that students will need as they complete high school and prepare to take the next steps toward adulthood in today's society. The course includes the study of interpersonal standards, lifespan roles and responsibilities, individual and family resource management, and financial responsibility and resources. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of adult roles and responsibilities. This course provides the foundation for continuing and post-secondary education in all career areas related to individual and family life.

Nutrition & Wellness (C53421)
1 semester, 1 credit Project Based Learning Course
This course is an introductory course valuable for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers related to nutrition, food, and wellness. This is a nutrition class that introduces students to only the basics of food preparation so they can become self-sufficient in accessing healthy and nutritious foods. Major course topics include nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology, and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of nutrition, food, and wellness. Food preparation experiences are a required component. **Student's social security number is required to receive CTE funding for this class.**

Advanced Nutrition & Wellness (C53400)
1 semester, 1 credit Project Based Learning Course
***Recommended*: Nutrition & Wellness**
This is a course which provides an extensive study of nutrition. This course is recommended for all students wanting to improve their nutrition and learn how nutrition affects the body across the lifespan. This course builds on the foundation established in Nutrition and Wellness, which is a recommended prerequisite. This is a project-based course; utilizing higher-order thinking, communication, leadership and management processes. Topics include extensive study of major nutrients, nutritional standards across the lifespan, influences on nutrition/food choices, technological and scientific influences, and career exploration in this field. Food preparation experiences are a required component, along with recipe education and journal entries related to nutrition and food preparation. **Student's social security number is required to receive CTE funding for this class.**

Advanced Nutrition & Wellness- Baking (C53401)
1 semester, 1 credit Project Based Learning Course
***Recommended*: Nutrition & Wellness**
This is a course which provides an extensive study of nutrition. Major topics for this advanced course include: basic baking theory and skills, introduction to breads, introduction to pastry arts, nutrition, nutrition accommodations and adaptations, cost control and purchasing, and current marketing and trends. This course builds on the foundation established in Nutrition and Wellness, which is a recommended prerequisite. This is a project-based course utilizing higher-order thinking, communication, leadership and management processes. Additional topics include extensive study of major nutrients, nutritional standards across the lifespan, and influences on nutrition/food choices, technological and scientific influences and career exploration in this field. Food preparation experiences are a required component, along with recipe education and journal entries related to nutrition and food preparation. Student's social security number is required to receive CTE funding for this class.

Housing and Interior Design (C53500)
1 semester, 1 credit *Fine Art Credit-
Project Based Learning Course
This course will emphasize the application of art principles in planning and designing aesthetically pleasing living environments for individuals and families. Students will learn to identify architecture styles, decorating periods, and color schemes. Other topics that may be addressed are the elements and principles of design as they apply to interior decorating and furnishing an apartment. Student's social security number is required to receive vocational funding for this class. Counts as a Fine Art credit for the AHD. **Student's social security number is required to receive CTE funding for this class.**

Child and Adolescent Development (C7157*) ***New Course***
2 semesters, 2 Credits
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. This course is part of the Education Careers Pathway.

Principles of Teaching (C7160) ***New Course***
2 semesters, 2 credits
Required Prerequisites: None
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 classroom observation experience is required for successful completion of this course. Counts as a directed elective or elective for all diplomas

Nutrition (C71710) ***New Course***
2 semesters, 2 credits
Required: Principles of Culinary and Hospitality
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

Principles of Culinary & Hospitality (C71730) ***New Course***
2 semesters, 2 Credits
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. **This course is part of the Culinary Arts Pathway.**

Principles of Human Services (C71760) ***New Course***
2 semesters, 2 credits
Prerequisites: None
Principles of Human Services explores the history of human services, career opportunities, and the role of the human service worker. Focuses on target populations and community agencies designed to meet the needs of various populations. This course will also encourage cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.Counts as a directed elective or elective for all diplomas

Relationships and Emotions (C71700) **New Course**
2 semesters, 2 credits
Required Prerequisite: Principles of Human Services
Relationship & Emotions examines the key elements of healthy relationships. Explores the main problems that damage relationships. Presents research findings on successful and unsuccessful relationships, and emotional connections. Explores the impact of one's emotional and relationship history on current and future romantic relationships. Presents practical, scientific-based skills for improving relationships. Additionally, this course offers practical and useful information for people who have experienced loss. Students have the opportunity to evaluate their own experiences and attitudes toward loss and grief. Counts as a directed elective or elective for all diplomas

PHYSICAL EDUCATION

PE- Gym and PE- Pool (P35420/P35440)
2 semesters, 2 credits
GRADUATION REQUIREMENT
Emphasis is on health-related fitness and on developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in at least three of the following different movement forms: health-related fitness activities (cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition), aerobic exercise, team sports, individual and dual sports, gymnastics, outdoor pursuits, self-defense, aquatics, dance, and recreational games. Ongoing assessment includes both written and performance-based skill evaluations.

Alternate PE (P35441 or P35442)
1 Semester, 1 Credit
The Indiana State Board of Education has granted local school districts the flexibility to award physical education credit through alternate means. Lake Central High School is offering alternative PE/Pool credits. Students who demonstrate mastery of state Academic Standards for PE through a LCHS sponsored qualifying activity may be able to earn a PE credit (see the complete list below).

Physical education credit earned by participation on an athletic team, may not count toward academic eligibility.

Qualifying Activities - Qualifying activities are only those that are sponsored and run by Lake Central High School and are listed below.

Baseball S2	*Dance S2*	*Soccer S1*	*Volleyball S1*
Basketball S2	*Football S1*	*Softball S2*	*Winter Guard S2*
CheerleadingS2	*Golf GS1, BS2*	*Swimming S2*	*Wrestling S2*
Color Guard S1	*Gymnastics S2*	*Tennis BS1 GS2*	*Unified Track S2*
Cross Country S1	*Marching Band S1*	*Track & Field S2*	

S1= Semester 1, S2= Semester 2, B=Boys, G=Girls

Criteria
Students participating in a qualifying activity must participate fully for the entire season as outlined by the governing body (ISSMA or IHSAA). If a student is injured, they may still be able to receive credit as long as the student continues to attend and participate, as they are able. Rehabilitation efforts allow students to remain eligible in good standing.

Students planning to participate in a fall qualifying activity would request ALT PE S1 for the fall. If the student plans to participate in a spring qualifying activity, they would request ALT PE S2 for the spring. Coaches, directors, and sponsors will award credit based on the following criteria:

1. **Attendance**
2. **Citizenship**
3. **Ability**

Physical Conditioning (P3560P)
2 semesters, 2 credits
***Recommended*: Secondary Physical Education I/II**
This course will incorporate individual training programs for Lake Central students. The instructors will work closely with the students allowing each the opportunity to reach their full potential in the class and with their personal fitness goals.

Health Education (P35060)
1 semester, 1 credit
GRADUATION REQUIREMENT
This course provides the basis for continued methods of developing knowledge, concepts, skills, behavior, and attitudes related to student health and well-being. The class includes units in growth and development, mental and emotional health, community and environmental health, nutrition, family life education, consumer health, personal health, alcohol, tobacco, and other drug education, intentional and unintentional injury and health promotion and disease prevention. Heath Education will fulfill the Indiana Health credit required for graduation.

Intro to Sports Medicine (P35600)
1 semester, 1 credits Work Based Learning Course
In this class, the student will explore the human anatomy, physiology, and kinesiology as they relate to sport and sports-related injuries. The students will, in addition learn the proper techniques for evaluating and rehabilitating injuries as they occur in athletes. Finally, the student will receive information about the duties of an athletic trainer and career and educational choices that will move a student towards a career in sports medicine. Students are evaluated through written testing as well as practical applications evaluations. The final written exam will be comprehensive, covering all information covered during the semester.

In addition, a research paper will be completed approximately two weeks prior to the end of the semester. This research paper will be counted as a grade for the second nine weeks of the semester.

Lifeguarding (P43100)
2 semesters, 2 credits Service Based Learning Course
***Recommended*: Life Saving and Water Safety, Teacher approval required.**
Students will serve as a lifeguard and assist in instruction of the PE Pool classes. Teacher approval is required for admission into this course.

Life Saving and Water Safety (P42300)
1 semester, 1 credit Work Based Learning Course
***Recommended*: Minimum 15 years of age, able to swim 300 continuous yards Freestyle and/or Breaststroke and recover a 10-pound brick from 8 feet of water.**
Emphasis is on the American Red Cross Lifeguard certification. This includes CPR/AED for the Professional Rescuer and First Aid.
This course is designed to provide certification in American Red Cross lifeguarding as well as certification in CPR, AED, and First Aid. This course will help improve swimming skills and train students for jobs at local beaches, pools, and camps

Advanced Life Saving (Life Saving II) (P42700)
1 semester, 1 credit – Work Based Learning Course
***Recommended*: Life Saving and Water Safety, certification in all four Red Cross sections**
This class will incorporate certification for Water Front Lifeguarding and re-certification for Lifeguarding/First Aid/CPR/AED. Additional skills in First Aid, snorkeling and underwater rescue will be covered.

Lifetime Fitness (P3560L)
1 semester, 1 credit - per year
Recommended: Secondary Physical Education I/II
This class will incorporate a variety of activities such as: ultimate Frisbee, flag football, basketball, volleyball, team handball, and more. Skills, rules, and etiquette of the sport are included. Students may take only one semester of this class.

Sports Conditioning (P3560A)
2 semesters, 2 credits
***Recommended*: Secondary Physical Education I/II**
The Sports Conditioning class is for student-athletes who are in good standing at Lake Central. If a student-athlete falls out of good standing they may be removed from the course at the end of the nearest semester. The course is designed to provide an opportunity for athletes to participate in a structured strength and athletic enhancement program. The class is geared toward the student who has shown an above average interest and ability in physical education through participation on a Lake Central High School athletic team. The course will incorporate individual and sport specific strength training programs for Lake Central student athletes. The instructor will work closely with the coaching and athletic training staff allowing the student the opportunity to reach their full potential in the class and in their sport. Students will be given workouts that may include a battery of core lifts for basic strength training. Students will have an opportunity to make use of free weights, medicine balls, agility and plyometric stations. Upon completion of this course students will understand and be able to facilitate a workout program that will enhance performance in their sport or daily life, as well as, promote proactive habits for lifelong fitness.

Swimming for Fitness (P3560S)
1 semester, 1 credit
Emphasis is on health-related physical fitness and on maintaining the skills/habits necessary for a lifetime of activity through swimming. This program will include emphasis on cardio-respiratory endurance, muscle endurance, body composition, flexibility, and muscle strength. Students will participate in a variety of individual and team activities
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CAREER AND TECHNICAL EDUCATION

The State of Indiana has implemented Next Level of Program Study for many Consumer and Technical Education Pathways. As a result, many of the introductory courses are changing. Courses that are for only 9th grade are noted. All of these courses will require the student's social security number.

Digital Design (Graphics)

These are all CTE courses, for funding and employment follow-up; the student's social security number is required.

Principles of Digital Design 9 (V71409) – (9th graders or those who have not taken Graphic Design and Layout)
2 semesters, 2 credits
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 Pathway – 2 semesters, 6 credits total
Comprised of three courses taken concurrently
. They are as follows:
Principles of Digital Design (V71400)
2 semesters, 2 credits
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 (V71410)
2 semesters, 2 credits
Digital Design Graphics will help students to understand and create the most common types of computer graphics used in in the industry. Additionally, students will be introduced to a full range ofmage input technology and manipulation including conventional photography, digital imaging and computer scanners. Students will learn to communicate concepts and ideads through various imaging devices.
Technical Skills Development - Graphics (V7156G)
Technical Skills Development provides the Digital Design student the opportunity to apply the technical knowledge and skills learned in the Digial Design Pathway in additional real world learning experiences.

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Digital Design Capstone (V72460)
2 semesters, 6 credits Project Based Learning
The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and/or web design. Students may focus their efforts on one area or explore multiple aspects

Precision Machine

These are all CTE courses, for funding and employment follow-up; the student's social security number is required.

Principles of Precision Machining (V71099) 9th grade, or students who have not yet taken Intro to Manufacturing
2 semesters, 2 credits Project Based Learning Course
Quantitative Reasoning Course
***Recommended*: Intro to Manufacturing I and Teacher Recommendation**
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, miling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute of Metalworking Skills (NIMS) Measurement, Materials & Safety certification that may be required for dual credit. .

Precision Machining Pathway – 2 semesters, 6 credits total
Comprised of three courses that taken concurrently
. They are as follows:

Principles of Precision Machining (V71090)
2 semesters, 2 credits Project Based Learning Course
***Required*: Intro to Manufacturing and Teacher Recommendation**
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, miling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute of Metalworking Skills (NIMS) Measurement, Materials & Safety certification that may be required for dual credit. .
Precision Machining Fundamentals (V71050)
2 semesters, 2 credits
Quantitative
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 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 dual credit.
Advanced Precision Machine (V71070)
2 semesters, 2 credits
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 prepared the student for the optional National Institute for Metalworking Skills (NIMS) Grinding I certification that may be required for dual credit.

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Precision Machining II (V57840)
2 semesters, 6 credits
Required: Precision Machining I
Quantitative Reasoning Course
Precision Machining II is a more in-depth study of the skills learned in Precision Maching I, with a stronger focus in CNC setup/operation/programming. Classroom activities will concentrate on precision set-up and inspection work as well as machine shop calculations. Students will develop skill in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be included.

Automotive

This is a CTE course, for funding and employment follow-up; the student's social security number is required.

Principles of Automotive Services 9 (V72139) 9th grade, or students who have not yet taken Intro to Transportation
2 semesters, 2 credits Project Based Learning
This course 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. .

Automotive Service Technology I -
2 semesters, 6 credits Project Based Learning Course
Dual Credit
***Recommended*: Introduction to Transportation and Teacher Recommendation**
This course meets from 2:15pm until 4:45pm and no bus transportation is provided.
Comprised of three courses that taken concurrently
. They are as follows:

Principles of Automotive Services (V72130)
2 semesters, 2 credits Project Based Learning
This course 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 (V72050)
2 semesters, 2 credits Project Based Learning
This course 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 Suspension (V72120)
2 semesters, 2 credits Project Based Learning
This course takes an in-depth look at engine performance, including concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. This course also takes an in-depth look at engine performance, including advanced concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. Hybrid/Alternative fuel technology will also be introduced.

Automotive Service Technology II - (V55460)
2 semesters, 6 credits
Required – Automotive Service Technology I, or Principles of Automotive Service, Brake Systems, Steering and Suspensions
This course further explores important skills and competencies within the Automotive Services Technology Pathway. Topic such as Steering & Suspension, Engine Repair, Climate Control and Driveline Service.
This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.

Engineering

Students taking these three courses will qualify for the Engineering Pathway. These courses can be taken sequentially.

Introduction to Engineering Design: Project Lead the Way (V48020)
2 semesters, 2 credits
Introduction to Engineering Design (IED) is a high school level course that is appropriate for 9th or 10th grade students who are interested in design and engineering or another technical career. The major focus of the IED course is to expose students to a design process, professional communication and collaboration methods, design ethics, and technical documentation. IED gives students the opportunity to develop skills in research and analysis. Teamwork, technical writing, engineering graphics, and problem solving through activity-, project-, and problem-based (APPB) learning are emphasized. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills and creative abilities while applying math, science, and technology knowledge learned in other courses to solve engineering design problems and communicate their solutions. IED also allows students to develop strategies to enable and direct their own learning, an ultimate goal of education. No previous knowledge is assumed, but students should be concurrently enrolled in college preparatory mathematics and science courses in order to facilitate the use and understanding of appropriate math and science concepts necessary for the successful completion of IED coursework. In addition, students will use industry standard 3D solid modeling software to facilitate the design and documentation of their solutions to design problems and challenges. As the course progresses and the complexity of the design problems increase students will learn more advanced computer modeling skills as they become more independent in their learning, more professional in their collaboration and communication, and more experienced in problem solving. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Principles of Engineering: Project Lead the Way (V56440)
2 semesters, 2 credits
Quantitative Reasoning Course
***Recommended*: Introduction to Engineering Design**
Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems. **This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.**

Civil Engineering Architecture: Project Lead the Way (V56500)
2 semesters, 2 credits
Dual Credit
Quantitative Reasoning Course
***Recommended*: Engineering Technology**
Architectural Drafting and Design II presents a history and survey of architecture and focuses on the creative design of buildings in a studio environment. This course covers problems of site analysis, facilities programming, space planning, conceptual design, proper use of materials, and selection of structure and construction techniques. Students develop presentation drawings, and give oral presentations and critiques. Generation of form and space is addressed through basic architectural theory, related architectural styles, design strategies, and a visual representation of the student's design process. This course will focus on advanced Computer Aided Design (CAD) techniques, including fundamentals of three-dimensional modeling for design. It includes an overview of modeling, graphical manipulation, part structuring, coordinate system, and developing strategies of modeling. Advanced CAD will enable the student to make the transition from 2D drafting to 3D modeling. Various Architectural software packages and applications may be used.
This is a CTE course, for funding and employment follow-up; the student's social security number will be needed.

Fire and Rescue

These are all CTE courses, for funding and employment follow-up; the student's social security number will be needed. Students will be required to complete an IHSAA physical for participation in Fire and Rescue.

Fire and Rescue
2 Semesters, 6 Credits
Dual Credit
This Pathway comprises three courses – all three courses must be taken at the same time. These courses will meet 3 class periods and PtE. Lake Central High School will transport students to the Lake County Fire Training Facility located in St. John, IN.

Principles of Fire Fighting (V71950)
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 (V71890)
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 NEPA 1001 which serves as the standard measurement of all firefighters in North America. Students will learn from 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 (V71860)
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 organizations, administration, operations, and basic strategies and tactics.

MISCELLANEOUS

Education Professions I (X54080)
2 semesters, 6 credits Work Based Learning Course
State Requirement: Child Development and Advanced Child Development
Recommended: 2.5 GPA, must be a junior or senior, and must fill out application.
Students will be able to gain foundational skills and knowledge for employment in education and related careers. They will be prepared for study related to education in higher education. They will study the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. They will gain experience in the field in experiences in the classroom setting and through creating career portfolios. This program is ideal for students who want to pursue a career in teaching. **This is a CTE course, for funding and employment follow-up, the student's social security number will be needed.**

- Confirmation of good school attendance
- Grades are in good standing
- Teacher recommendation(s)
- Student's course credits are on target for proper diploma and graduation
- Parent written permission allowing student to go off campus for purpose of this course
- Understanding that this course requires participation in classroom instruction
- Insured transportation
- Principal approval

Work Based Learning
2 semesters, 2-6 credits Work Based Learning Course
Recommended: Seniors
Work Based Learning is a course designed to allow a work-based experience for students to build skills and knowledge in their chosen career path or furthers their study within the area of interest. Students can choose to be involved in an internship off site or school based/on-site. There is required classroom work along with required outside of school work that students must submit weekly. Students must work at least 170 hours per semester (~10 hours per week). The following are needed to confirm enrollment in the course:

- Confirmation of good school attendance
- Grades are in good standing
- Teacher recommendation(s)
- Student's course credits are on target for proper diploma and graduation
- Parent written permission allowing student to go off campus for purpose of this course
- Student **must** have job secured for WBL prior to the first day of school, and background check completed by the first week of school
- Confirmation of enrollment in an off-site (i.e. Schilling internship) or on-site (i.e. Student Tech Help Desk) place of work also known as a site agreement
- Work site supervisors/mentors have a background check for current school year
- Documentation of work to be paid or non-paid
- Insured transportation
- A completed signed application which includes a training plan aligned with content Indiana State Standards
- Willingness to participate in the Work Ethic Certificate program and obtaining parent's signature to do so
- Understanding that this course requires participation in classroom instruction
- Principal approval

Examples of school based/on-site Work Based Learning opportunities include: Auto Technology, Computer Technology (Work Based Tech (WB) or Live Streaming Tech (LS), Machining, Theater Production. Each student participating in WBL is encouraged to join a student career organization such as Skills USA or Family Career and Community Leaders of America (FCCLA). There may be a small fee for joining these student "professional organizations". At the conclusion of the internship, each student shall submit a portfolio that documents the student's work and that included reflections upon what has been learned. This portfolio is a living document that can be added to as they move on into their lives after high school.
Student's social security number is required to receive CTE funding for this class.

College Classes: Attend classes at a local college campus
Recommended: Seniors only
Students will be able to attend college courses at a local college (Purdue University Northwest, Indiana University or Ivy Tech Community College) in the afternoon. Students must enroll in at least 2 classes each semester.

Independent Study Research (90080)
2 semesters, 2 credits
Independent Study Research is a course that provides students with unique opportunities for independent, in-depth study of one or more specific problems. Students develop a familiarity with the procedures used in a given educational, research, or industrial setting or a variety of such settings. Students enrolled in this course will complete an end-of-course project, such as a scientific research paper, or other approved presentations of their findings. Students must apply through the guidance office in order to be considered for this unique study opportunity. Students must also have a mentor teacher to sponsor their research.

Peer Mentoring (0502PM)
1 semester, 1 credit Service Based Learning Course
Students serve as peer mentors by assisting in a special needs classroom during a class period. Students assist in instruction of students with various types of disabilities, explore various career options working with people with disabilities, and promote inclusion of individuals with disabilities in the school community.
Qualifications
Peer Mentors are expected to:

- show classroom students and staff respect at all times;
- attend class and have good , consistent attendance in all classes;
- maintain passing grades in all classes;
- be honest;
- show initiative;
- work independently in all areas;
- demonstrate appropriate social and behavior skills in all areas; and
- participate in activities and ask when unsure what to do.

Study Hall (10010)
2 semesters, 0 credits
Students may choose to take a study hall if they have completed all necessary coursework and are on track with their credits. This study hall should be used to work on homework or to study for tests/quizzes. Students receive no credit for taking a study hall.

HAMMOND AREA CAREER CENTER-CAREER-TECHNICAL EDUCATION

Lake Central High School offers juniors and seniors an opportunity to attend the Hammond Area Career Center. Programs offered are taught three hours daily. Lake Central students attending the Career Center are required to ride the bus. Students attending career training programs at the Area Career Center will spend half of the school day at the Area Career Center and the other half at Lake Central High School. In order for students to qualify to attend the Area Career Center, they must meet two of the following criteria:

- Must Be a Junior or Senior
- Pass English 10 or Algebra I ECA or English/Math ISTEP.
- Passed all required classes at Lake Central

Collision & Refinishing Technology I & II

Course Numbers: 5544 & 5514 - **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-16 Credits

- Learn skills for entry level auto body positions.
- Earn industry leading ASE certification in painting & refinishing, structural analysis & damage repair, and non-structural analysis and damage repair.
- Learn computerized frame measuring; computerized estimate writing; shrinking and stretching methods; alignment work on doors, hoods and deck lids; use of spray painting equipment.
- Work on real vehicles in a realistic shop environment.

Vincennes credit will be awarded for the following courses:

AUTO 105	*Transportation Fundamentals*	*2 credits*
BODY 100	*Non-Structural Analysis & Damage Repair*	*3 credits*
BODY 100L	*Non-Structural Analysis & Damage Repair Lab*	*4 credits*
BODY 150	*Painting & Refinishing*	*3 credits*
BODY 150L	*Painting & Refinishing Lab*	*4 credits*

Computer Information Technology I & II

Course Numbers: 5234 & 4588- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-6 Credits
Articulation: Purdue University Northwest-9 Credits

- Learn skills for entry level computer support and network administrator positions.
- Earn industry leading CompTIA A+ certifications and Cisco CCENT certification.
- Learn how to install, configure, maintain and troubleshoot computers, laptops, tablets, peripherals, and networks.
- Utilize all of the latest technologies and tools.

Vincennes credit will be awarded for the following courses:

CMET 140	*Computer Maintenance I*	*3 credits*
CMET 185	*Computer Maintenance II*	*3 credits*

Construction Technology I & II

Course Numbers: 5580 & 5578- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-6 Credits

- Learn skills for entry level construction positions.
- Earn industry leading Home Builder's Institute (HBI) Carpentry Basic Certification.
- Learn carpentry, plumbing, electrical, masonry, painting, drywall, roofing, concrete and OSHA training.
- Classroom represents a realistic job site, complete with homes that students build.

Vincennes credit will be awarded for the following courses:

CNST 100	*Construction Seminar*	*1 credit*
CNST 120	*Construction Safety*	*2 credits*
CNST 261	*IN Residential Code for 1 & 2 Family Dwellings*	*3 credits*

Criminal Justice & Law I & II
Course Numbers: 5822 & 5824- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-12 Credits
Articulation: Indiana University-3 Credits

- Learn skills for entry level police and legal work.
- Earn CPR certification.
- Learn about the criminal justice system, traffic control, criminology and forensic science.
- Participate in mock trials and perform community service.

Vincennes credit will be awarded for the following courses:

LAWE 100	*Survey of Criminal Justice*	*3 credits*
LAWE 106	*Intro to Traffic Control*	*3 credits*
LAWE 150	*Intro to Criminology*	*3 credits*
LAWE 160	*Criminal Investigation*	*3 credits*

Culinary and Pastry Arts & Sciences I & II
Course Numbers: 5440 & 5346- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-14 Credits
Articulation: Illinois Institute of Art-20 Credits, Johnson & Wales University-18 Credits, Mountain State-12 Credits, Purdue University Northwest-7 Credits, Robert Morris College-9 Credits

- Learn skills for entry level culinary arts and hospitality positions.
- Earn industry standard ServSafe and Pro-Start National Certification of Achievement.
- Learn all areas of food preparation, sanitation, personal finance, inventory, nutrition, customer relations, and management.
- Work in a professional kitchen environment with industrial grade appliances.

Vincennes credit will be awarded for the following courses:

CULN 110	*Quantity Food Production*	*5 credits*
REST 100	*Intro Hospitality Management*	*3 credits*
REST 120	*Food Service Sanitation*	*3 credits*
REST 155	*Quantity Food Purchasing*	*3 credits*

Dental Assisting I & II
Course Numbers: 5203 & 5204- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Ivy Tech Community College-6 credits
Articulation: Kaplan College-12.5 credits

- Learn skills for dental assisting and dental hygienist positions.
- Earn CPR, Dental Radiological, Dental Assistant, Orthodontic Assistant certifications.
- Learn dental materials, chair-side assisting, patient preparation, office tasks, lab duties and assisting the dentist or dental hygienist.
- Work with dental equipment and chairs and have the opportunity for an internship at a real dentist office.

Ivy Tech credit will be awarded for the following courses:

DENT 115	*Preclinical Practice I*	*3 credits*
DENT 124	*Preventive Dentistry/Diet Nutrition*	*3 credits*

Early Childhood Education I & II

Course Numbers: 5412 & 5406- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Ivy Tech Community College-12 Credits

- Learn skills for child care and pre-school teaching positions.
- Earn CPR and Child Development Associate (CDA) certifications.
- Learn child development and growth, develop lesson plans, develop the physical, emotional, social and cognitive areas of early childhood.
- Participate in a professional internship at a child care facility the second year of the program.

Ivy Tech credit will be awarded for the following courses:

ECED 100	*Introduction to Early Childhood Education*	*3 credits*
ECED 101	*Health, Safety and Nutrition*	*3 credits*
ECED 103	*Curriculum in Early Childhood Classroom*	*3 credits*
ECED 105	*CDA Process*	*3 credits*

Electrical & Mechanical Engineering Technology I & II

Course Number: 5608 & 5606- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-20 Credits

- Learn skills needed in the high demand fields of robotics, automation, engineering, and engineering technology
- Earn Certified Production Technician (CPT) certification.
- Learn robotics and automation, engineering technology, electrical systems, mechanical systems, hydraulics and pneumatics, and programmable logic controllers (PLC's).

Vincennes credit will be awarded for the following courses:

CIMT 100	*Electronics for Automation*	*3 credits*
CIMT 100L	*Electronics for Automation Lab*	*3 credits*
CIMT 125	*Introduction to Robotics & Automation*	*2 credits*
CIMT 125L	*Introduction to Robotics & Auto Lab*	*1 credit*
CIMT 140	*Mechanical Drives*	*2 credits*
CIMT 140L	*Mechanical Drives Laboratory*	*1 credits*
CIMT 150	*Electronic/Electrical Application*	*2 credits*
CIMT 150L	*Electronic/Electrical Application Lab*	*1 credit*
CIMT 160	*Fluid Power Systems*	*1 credit*
CIMT 160L	*Fluid Power System Lab*	*1 credit*
CIMT 175	*Mechantronics*	*2 credits*
CIMT 175L	*Mechantronics Lab*	*1 credit*

Emergency Medical Services

Course Number: 5210- **Work Based Learning Course**
Length/Credits: 6 high school credits
Open to: Grade 12
Dual Credit: Vincennes University-6 Credits

- Learn skills for EMT and paramedic work.
- Earn CPR, Emergency Medical Responder (EMR), and Emergency Medical Technician (EMT) certifications.
- Learn about emergency care techniques, stabilizing patients, transporting, and first responder skills.
- 1 year program that transitions seamlessly from the Health Science Careers programs.

Vincennes credit will be awarded for the following courses:

EMTB 212	*Emergency Medical Technician-Basic*	*6 credits*

Health Science Careers I

Course Numbers: 5276 & 5282- **Work Based Learning Course**
Length/Credits: 6 high school credits
Open to: Grades 11 and 12
Dual Credit: Ivy Tech Community College-6 Credits

- Learn about medical terminology, anatomy and physiology, health careers and nursing skills.
- Transition seamlessly to other health science areas such as Nursing and EMT.
- Utilize state of the art Anatomy-in-Clay program.

Ivy Tech credit will be awarded for the following courses:

HLHS 100	*Introduction to Health Careers*	*3 credits*
HLHS 101	*Medical Terminology*	*3 credits*

Health Science Careers II: Nursing

Course Number: 5284- **Work Based Learning Course**
Length/Credits: 6 high school credits
Open to: Grade 12
Dual Credit: Ivy Tech Community College-5 Credits

- Learn skills for entry level nursing and health care work.
- Earn CPR and Certified Nursing Assistant (CNA) certification.
- Participate in an internship in a managed care facility in the second semester of the program.

Ivy Tech credit will be awarded for the following courses:

HLHS 107	*CNA Preparation*	*5 credits*

Industrial Maintenance & Welding I & II

Course Numbers: 5776 & 5778- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Ivy Tech Community College-12 Credits

- Learn skills for entry level welding, machining and industrial maintenance work.
- Earn American Welding Society (AWS) SENSE Level 1 certification.
- Learn welding techniques, blue print reading, industrial maintenance, motor controls, and basic electricity and machinery.
- Learn in a newly remodeled classroom complete with new welding booths.

Ivy Tech credit will be awarded for the following courses:

WELD 100	*Welding Processes*	*3 credits*
WELD 108	*Shielded Metal Arc Welding I*	*3 credits*
WELD 109	*Oxy-Fuel Gas Welding & Cutting*	*3 credits*
WELD 207	*Gas Metal Arc (MIG) Welding*	*3 credits*

Multimedia Broadcast Academy I & II

Course Numbers: 5986 & 5992- **Work Based Learning Course**
Length/Credits: 6 high school credits per year
Open to: Grades 11 and 12
Dual Credit: Vincennes University-3 Credits

- Learn skills for A/V production, news anchor, radio and TV engineering work.
- Learn all aspects of audio/video, radio and TV production, utilize industry standard tools such as AVID Media Composer and Final Cut Pro.
- Work in a real high definition television studio and radio both.

Vincennes credit will be awarded for the following courses:

MCOM 102	*Introduction to Audio/Video Production*	*3 credits*

Lake Central Career Pathways Classes of 2023 and 2024

Graduation Pathway – Post-Secondary Ready CTE Concentrator Pathways
These are advanced courses that may have prior recommended courses or criteria to ensure success.

Cluster: Architecture and Construction Pathway: Construction				
DOE Code	Course		LC	ACC
5580	Construction Trades I	Concentrator Course A		Y
5578	Construction Trades II	Concentrator Course B		Y

Cluster: Arts, AV Tech and Communication Pathway: Interactive Media				
DOE Code	Course		LC	ACC
5232	Interactive Media	Concentrator Course A	Y	
5550	Graphic Design and Layout	Concentrator Course B	Y	

Cluster: Arts, AV Tech and Communication Pathway: Radio and TV				
DOE Code	Course		LC	ACC
5986	Radio and Television I	Concentrator Course A		Y
5992	Radio and Television II	Concentrator Course B		Y

Cluster: Business and Marketing Pathway: Accounting				
DOE Code	Course		LC	ACC
4562	Principles of Business Management	Concentrator Course A	Y	
4522	Advanced Accounting	Concentrator Course B	Y	

Cluster: Business and Marketing Pathway: E & M Business Management Focus				
DOE Code	Course		LC	ACC
4562	Principles of Business Management	Concentrator Course A	Y	
5914	Principles of Marketing	Concentrator Course B	Y	

Cluster: Business and Marketing Pathway: Office Management				
DOE Code	Course		LC	ACC
4562	Principles of Business Management	Concentrator Course A	Y	
5268	Administrative and Office Management	Concentrator Course B	Y	

Cluster: Business and Marketing Pathway: MM-Marketing				
DOE Code	Course		LC	ACC
5914	Principles of Marketing	Concentrator Course A	Y	
5918	Strategic Marketing	Concentrator Course B	Y	

Cluster: Education and Training Pathway: Early Childhood				
DOE Code	Course		LC	ACC
5412	Early Childhood Education I	Concentrator Course A		Y
5406	Early Childhood Education II	Concentrator Course B		Y

Cluster: Education and Training Pathway: Education Careers				
DOE Code	Course		LC	ACC
5408	Education Professions I	Concentrator Course A	Y	
5404	Education Professions II	Concentrator Course B	Y	

Cluster: Hospitality and Human Services Pathway: Cosmetology				
DOE Code	Course		LC	ACC
5802	Cosmetology I	Concentrator Course A	Y	
5806	Cosmetology II	Concentrator Course B	Y	

Cluster: Hospitality and Human Services Pathway: Human and Social Services				
DOE Code	Course		LC	ACC
5336	Human and Social Services I	Concentrator Course A	Y	
5462	Human and Social Services II	Concentrator Course B	Y	

Cluster: STEM/Information Tech Pathway: Human and Social Services				
DOE Code	Course		LC	ACC
4801	Computer Science I	Concentrator Course A	Y	
5236	Computer Science II	Concentrator Course B	Y	

Cluster: Manufacturing and Logistics Pathway: Welding				
DOE Code	Course		LC	ACC
5776	Welding Technology I	Concentrator Course A		Y
5778	Welding Technology II	Concentrator Course B		Y

Cluster: Public Safety Pathway: Criminal Justice				
DOE Code	Course		LC	ACC
5822	Criminal Justice I	Concentrator Course A		Y
5824	Criminal Justice II	Concentrator Course B		Y

Cluster: Public Safety Pathway: EMT/Paramedic				
DOE Code	Course		LC	ACC
5282	Health Science Education I	Concentrator Course A		Y
5210	Emergency Medical Services	Concentrator Course B		Y

Cluster: STEM Pathway: Engineering				
DOE Code	Course		LC	ACC
4814 or 5644	Principles of Engineering PLTW /non PLTW	Concentrator Course A	Y	
4820 or 5650	Civil Engineering and Architecture PLTW/ non PLTW	Concentrator Course B	Y	

Cluster: Transportation Pathway: Auto Collision				
DOE Code	Course		LC	ACC
5514	Automotive Collision Repair I	Concentrator Course A		Y
5544	Automotive Collision Repair II	Concentrator Course B		Y

Cluster: Transportation Pathway: Automotive Technology				
DOE Code	Course		LC	ACC
5510	Automotive Services Technology I	Concentrator Course A	Y	Y
5546	Automotive Services Technology II	Concentrator Course B	Y	Y

Pathways Lake Central High School Class of 2025 and beyond

To be a concentrator and earn a Pathway, students must take all three courses in the Pathway. Capstone (Level II) is optional, but requires the completion of the Pathway

Cluster: Advanced Manufacturing
Career Pathway: Precision Machining – Lake Central High School

Course Number	Course Name
V71090	Principles of Precision Machining
V71050	Precision Machining Fundamentals
V71070	Advanced Precision Machining

Capstone::V01330 Precision Machining Capstone

Cluster: Arts, AV Tech and Communication
Career Pathway: Digital Design – Lake Central High School

Course Number	Course Name
V71400	Principles of Digital Design
V71410	Digital Design Graphics
V55500	Graphic Design and Layout-

Capstone: V04050 Digital Design Capstone

Cluster: Finance
Career Pathway: Accounting

Course Number	Course Name
B45620	Principles of Business Management
B45240	Accounting Fundamentals
B45220	Advanced Accounting

Capstone: Not currently offered.

Cluster: Marketing
Career Pathway: Entrepreneurship

Concentrator A: Course Number	Course Name
B71540	Principles of Entrepreneurship
B71480	New Venture Development
B71470	*Small Business Operations – School Year 2023-2024*

Capstone: Not currently offered.

Cluster: Marketing
Career Pathway: Marketing and Sales

Course Number	Course Name
B45620	Principles of Business Management
B59140	Marketing Fundamentals
B59180	Strategic Marketing

Capstone: Not currently offered

Cluster: Education Careers
Career Pathway: Biomedical Sciences and Technology

Course Number	Course Name
S52180	Principles of Teaching
S52160	Child and Adolescent Development
S52170	*Teaching and Learning* – School Year 23-24

Capstone: Education Professions (X72670)

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Cluster: Health Sciences
Career Pathway: Biomedical Sciences and Technology

Course Number	Course Name
S52180	Principles of Biomedical Science
S52160	Human Body Systems
S52170	Medical Interventions

Capstone: Not currently offered.

Cluster: Human and Social Services
Career Pathway: Human Services

Course Number	Course Name
C71760	Principles of Human Services
C71740	*Understanding Diversity*- School Year 23-24
C71770	Relationships and Emotions

Capstone: Not currently offered.

Cluster: Law, Public Safety, Corrections and Security
Career Pathway: Fire and Rescue

Course Number	Course Name
V71950	Principles of Fire and Rescue
V71890	Fire Fighting Fundamentals
V71860	Advanced Fire Fighting

Capstone: Not currently offered.

Cluster: STEM
Career Pathway: Computer Science

Course Number	Course Name
B71830	Principles of Computing
B73510	*Topics in Computer Science 23-24 School Year*
B73520	*Computer Science 23-24 School Year or 24-25 School Year*

Capstone: Not currently offered.

Cluster: STEM
Career Pathway: Engineering

Course Number	Course Name
V48020	Introduction to Engineering Design
V56440	Principles of Engineering
V56500	Civil Engineering and Architecture

Capstone: Not currently offered.

Cluster: Transportation, Distribution and Logistics
Career Pathway: Automotive Services

Course Number	Course Name
V03700	Principles of Automotive Service
V03710	Brake Systems
V03720	Steering and Suspensions

Capstone: V0373 Automotive Service Capstone

Pathways at Hammond Area Career Center Class of 2025 and beyond

To be a concentrator and earn a Pathway, students must take all three courses in Concentrator A. Concentrator A must be complete before students can take the Concentrator B course.

Cluster: Advanced Manufacturing
Career Pathway: Welding Technology

Course Number	Course Name
V01400	Principles of Welding Technology
V01410	Shielded Metal Arc Welding
V01420	Gas Welding Processes

Capstone::V01430 Welding Technology Capstone

Cluster: Architecture and Construction
Career Pathway: Construction Trades- Carpentry

Course Number	Course Name
V03000	Principles of Construction Trades
V03010	Construction Trades General Carpentry
V03020	Construction Trades: Framing and Finishing

Capstone::V03030 Construction Trades Capstone

Cluster: Arts AV Tech and Comm
Career Pathway: Radio and Television Broadcasting
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Course Number	Course Name
V04200	Principles of Broadcasting
V04210	Audio and Visual Production Essentials
V04220	Mass Media Production

Capstone::V04240 Radio & TV Broadcasting Capstone

Cluster: Education and Training
Career Pathway: Early Childhood

Course Number	Course Name
V07000	Principles of Early Childhood Education
V07010	Early Childhood Education Curriculum
V07020	Early Childhood Education Guidance

Capstone::V07030 Early Childhood Education Capstone

Cluster: Law, Public Safety, Corrections and Security
Career Pathway: Criminal Justice

Course Number	Course Name
V08600	Principles of Criminal Justice
V08610	Law Enforcement Fundamentals
V08620	Corrections and Cultural Awareness

Capstone::V08630 Criminal Justice Capstone

Cluster: Transportation, Distribution and Logistics
Career Pathway: Automotive Services

Course Number	Course Name
V03700	Principles of Automotive Service
V03710	Brake Systems
V03720	Steering and Suspensions

Capstone: V0373 Automotive Service Capstone

Cluster: Transportation, Distribution and Logistics
Career Pathway: Automotive Collision Repair

Course Number	Course Name
V03750	Principles of Collision Repair
V03760	Automotive Body Repair
V03770	Plastic Body Repair and Painting Fundamentals

Capstone::V03780 Collision Repair Capstone

Notes: