Physical Education

Culinary Arts

Theatre

Childhood Education

Spanish Language Arts

Social Studies

Business

SHS ELECTIVES 24-25

Visual Arts

Math

Science

Freshman Seminar

AVID

Music

CTE Healthcare Science

English Language Arts

CTE Technical

Physical Education

STRENGTH & PERFORMANCE

- Learn how to strengthen and tone the major muscle groups of the human body through the proper utilization of weight training.
- Students will have the ability to create their own personal fitness plan where they can focus on;
  - **Getting stronger**
  - **Increasing flexibility and mobility**
  - **Losing weight**
  - **Increasing athletic ability**

FUNCTIONAL FITNESS

- Group fitness structured classes; variety of activities weekly
- Focusing on individual goals
  - Muscular Strength & Endurance, Flexibility/Mobility, Cardiovascular Endurance & Mental Health (working on anxiety, social, stress management & more)
- Strength training with suspension trainers & dumbells
- Cardiovascular endurance with bikes, rowers & ski ergs
- Yoga & Mobility movements (Stretching)
- Meditation working on mental health aspects
- Great for athletes in and out of season
- Possible Field Trips to Yoga & or Fitness Studios

TEAM SPORTS, COACHING & OFFICIATING

- **Semester 1 - Softball, Volleyball**
- **Semester 2 - Badminton, Football**
- Learn rules & regulations of above mentioned sports
- Act as a coach & official to practice using assertive communication to enforce rules, ensure safe practices, and sportsmanship during activities

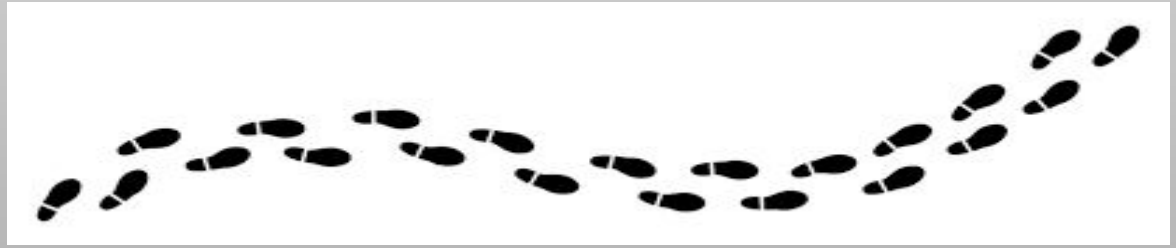
WALKING FOR WELLNESS

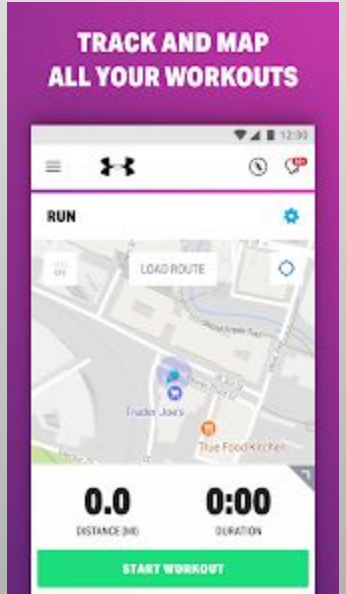
About the Class…

- ➔ Students will track their progress as they walk on a daily basis to walk at least 2 miles daily, reflect on the course & physical activity, complete a project
- ➔ **Held outdoors daily, even in winter, unless the temperature has a real feel of less than 20 degrees**
  - ◆ **Staying inside in winter is not optional for this course**

Why take Walking for Wellness

- ➔ Go on off campus walks
- ➔ Compete with yourself while tracking your walk





AQUATICS 1 & 2

- For students who are beginner to intermediate swimmers
- **Students will be in the water on a daily basis for the entire semester**
- Includes:
  - swimming skills
  - sport and games in the water
  - aquatic safety and fitness
- This course is designed to help students develop their ability & endurance in three main strokes: freestyle, breaststroke & elementary backstroke along with the fundamental skills of treading water & water safety

INDEPENDENT PE 1 → INDEPENDENT PE 2

- Juniors & Seniors Only - can be ONLY taken ONE time)
  - **INCENTIVE - IF STUDENTS EARN AN A OR B IN INDEPENDENT PE THEY EARN AN EXEMPTION FOR THE FOLLOWING YEAR**
  - Students MUST be self motivated to complete the workouts, quizzes & reflections OR come in at 6:45am-7:20am for help/motivation from IDPE teachers
  - You will have a Polar Heart Rate Monitor to keep during the semester
    - Tracking your workouts
    - Track your sleep
  - Great for students who are in sports (you may use your watch during your sport as long it is approved by your coach)

JUNIOR & SENIOR LEADERSHIP COURSE

Paths to Senior Leadership

- ➔ Intro to Leadership S1 & Advanced Leadership S2→ **Sophomores/Juniors**
- ➔ Senior Leadership S1 & S2
  - ◆ **Sophomore, Juniors or Seniors who went through Intro & Advanced Leadership classes the previous year**
- ➔ Lifeguarding (C or better) → Advanced Leadership → Senior Leadership
- ➔ Classes will prepare students to lead and help teach PE classes throughout the year

Why take Leadership?

- ➔ Great to put on college applications
- ➔ Chance to work with other classes and peers
  - ◆ Mentor
- ➔ Gain life skills that apply outside of school as well
  - ◆ I.E. Communication, responsibility, etc.

LIFEGUARDING

- Grades 9-12
- MUST be 15 by completion of course
- MUST be able to pass the basic skills test which includes:
  - Swimming 100 yards without stopping
  - Treading water for 1 minute without using hands
  - Performing a feet first surface dive to retrieve a 10 pound weight from the bottom of the deep end of the pool (11 feet)
- Course fee $35.00 (fee cannot be waived)
- Course CANNOT be taken more than once

INCENTIVES:

- Honor Course
- Successfully complete the requirements to receive official Ellis and Associates lifeguard certification and work as a lifeguard.
- Pass this course with a C or better to waive Intro to Leadership course and automatically enroll in Advanced Leadership course.

AVID

AVID

- **New & current high school students interested:**
  - **INTERVIEWS BY AVID TEACHERS/AP MUST OCCUR WHEN AVID IS A NEWLY SELECTED COURSE AND/OR IF A STUDENT EARNED D OR E IN PRIOR AVID COURSE**
  - 2.5 GPA/Teacher recommendation
  - Complete an application/Interview
  - Notify APFS prior

FRESHMAN SEMINAR

Freshman Seminar

- **FIRST YEAR FRESHMAN ONLY**
  - **Register as many freshman as possible (definitely those who are currently struggling at the MS)**
- Class goes over a lot of information that may be difficult for freshmen to figure out on their own:
  - Things like email, navigating Canvas/IC/Clever, school procedures and guidelines, high school and college pathways, and general information that is happening at SHS

FACS

CHILDHOOD EDUCATION
&
CULINARY ARTS

CHILDHOOD EDUCATION

CHILD DEVELOPMENT

Grades: 9-12 **Length:**Semester **Credit:** 1

Prerequisite: None

- Focus on child growth and care from 0-3.
- Learn about areas of development, child safety and families.
- Infant simulators used

CHILDHOOD EDUCATION

Grades: 10-12 **Length:** Year **Credits:** 2

Prerequisite: None

- Teach in preschool lab setting
- Apply learning with preschool students
- Learn about special education

ADVANCED CHILD EDUCATION

Grades: 11 & 12 **Length:**Year **Credits:** 2

Prerequisite: Childhood Education

- Further mastery of teaching in preschool
- Research and apply career knowledge
- Reflect on teaching practices
- Take on leadership roles in a preschool setting

EDUCATION INTERNSHIP

Grades: 12 **Length:** Year **Credits:** 4

Prerequisite: Advanced Childhood Ed OR Application Approval

- Classroom assistant at elementary or middle school on a daily basis
- Structured experiences for teacher preparation.
- Authentic learning in multiple classrooms
- Personal Transportation preferred but not required

CULINARY ARTS

INTRO to CULINARY ARTS

Grades: 9-12 **Length:** 1 Year Course **Credit:** 2

- Focus on safety and sanitation, preparing a variety of foods, and evaluating skills based on lab performance.

CULINARY ARTS

Grades: 10-12 **Length:** 1 Year Course **Credit:** 2

- Focus on safety and sanitation, advanced techniques in the culinary industry, nutritional planning, and exploring the hospitality and culinary industry.

ADVANCED CULINARY ARTS

Grades: 11-12 **Length:** 1 Year Course **Credit:** 2

- Focus on safety and sanitation, quantitative cooking methods, and business strategies necessary to run a catering company.

RESTAURANT MANAGEMENT

Grades: 12 **Length:** 2 Periods, 1 Year Course **Credits:** 4

- Emphasis in restaurant and hospitality management skills.

The Silver Spoon cafe




MUSIC

BAND
CHOIR
ORCHESTRA
MUSIC THEORY

CHOIR

STREAMWOOD HIGH SCHOOL

CHOIR DEPARTMENT

COURSE DESCRIPTIONS:

Mixed Choir (Level 1-2) is available to students in Grades 9-12. Students who take this course will learn the basics of singing technique, music theory and literacy, and how to sing in an ensemble. Students who enjoy singing and performing should join this class.

Concert Choir (Level 3-4) is an auditioned chamber vocal group. In this high level ensemble, students will be focusing on the development of high level singing techniques and the study of high level vocal literature. There is no prerequisite class to take, however an audition is required to be in the ensemble.

During the second semester, students will have an opportunity to learn how to prepare and perform solo and chamber ensemble works for our district-wide Solo/Ensemble Festival.

MORE INFORMATION:

Our choirs perform at festivals in the area with an interest in expanding to festivals at colleges and touring out of state.

We also try to give as many opportunities to students for performing and vocal lessons through out Streamwood Choral Society Scholarship.

BAND

STREAMWOOD HIGH SCHOOL

BAND DEPARTMENT

COURSE DESCRIPTIONS:

Concert Band: is an early high school instrumental ensemble. In this ensemble, students will focus on the development of advanced musicianship, technical skills, and performance skills through the study and performance of challenging wind band literature and chamber music.

Symphonic Band is an auditioned, advanced-level instrumental ensemble. In this ensemble, students will focus on the development of a high level of musicianship and skill development through the study and performance of challenging wind band literature and chamber music.

MORE INFORMATION:

All members of the Streamwood Band Program are required to perform at all concerts, including at least three band concerts, a chamber music concert, concert band festival, and any other performances or competitions. Students are also encouraged to participate in the annual Solo and Ensemble Festival, audition for ILMEA, as well as participate in the school orchestra winds section and school musical. In the Fall, all students participate in the SABRE Marching Band, while in the Spring, all students participate in the SABRE Pep Band.

ORCHESTRA

link

STREAMWOOD HIGH SCHOOL

ORCHESTRA DEPARTMENT

COURSE DESCRIPTIONS:

Concert Orchestra is high school instrumental string ensemble. In this ensemble, students will focus on the development of advanced musicianship, technical skills, and performance skills through the study and performance of challenging string literature. The class meets every day for about 50 min. We perform two to three times a years. All performances are require

Chamber Orchestra is is an auditioned, advanced-level instrumental string ensemble. In this ensemble, students will focus on the development of a high level of musicianship and skill development through the study and performance of challenging work from different periods of music.

MORE INFORMATION:

You are welcome to be part of the concert orchestra if you have previous experience playing violin, viola, cello or string bass. Some of our students even though they have not played in an orchestra ensemble, they have been taking private lessons and find very enjoyable being part of the orchestra. Classes meet every day for about 50 min. We perform two to three times a years. All performances are require.

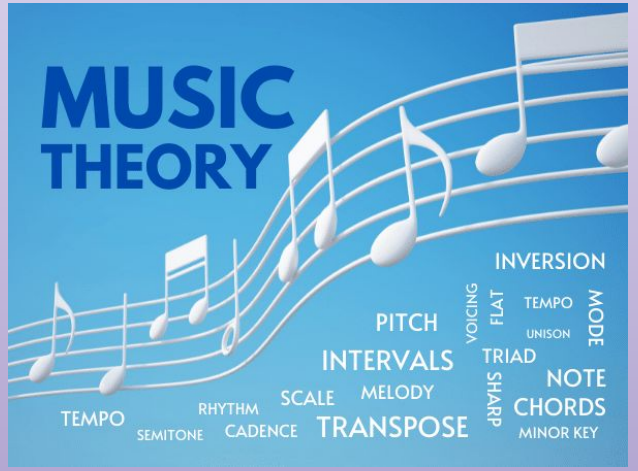
MUSIC THEORY

STREAMWOOD HIGH SCHOOL

MUSIC ELECTIVES

COURSE DESCRIPTIONS:

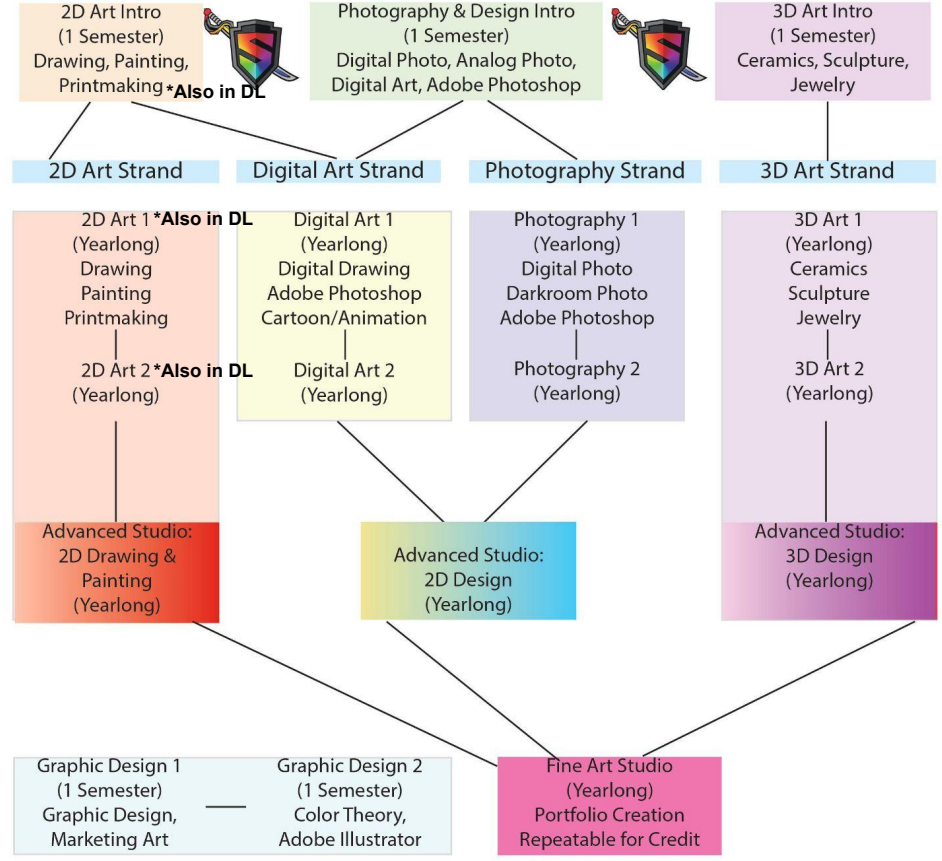
Music Theory and Appreciation is an advanced-level course in which students will focus on the theoretical structure of music. This includes the study of scales, intervals, ear training, form and analysis, keyboard harmony and technique, music history, and theory of composition. Prior experience in music is encouraged, but not required.



Do you want to be an SHS Artist ?

Check out our Fine Arts course offerings!

Intro courses are NOT required pre-requisites!



Visual Arts

Visual Arts Course Guide

	Class	Length	Code	Freshman	Sophomore	Junior	Senior	Prerequisites
3D Strand	3D Art Intro	Semester	AR160GE3	✔	✔	✔	✔	None
	3D Art 1	Year	AR170GE1/2	✔	✔	✔	✔	None
	3D Art 2	Year	AR180GE1/2		✔	✔	✔	MUST complete BOTH semesters of 3D Art 1 with a passing grade.
	Advanced Studio 3D	Year	AR190HN1/2			✔	✔	MUST complete ALL semesters of 3D Art 1 AND 3D Art 2 with a passing grade.
2D Strand	2D Art Intro	Semester	AR040GE3	✔	✔	✔	✔	None
	2D Art 1	Year	AR050GE1/2	✔	✔	✔	✔	None
	2D Art 2	Year	AR060GE1/2		✔	✔	✔	MUST complete BOTH semesters of 2D Art 1 with a passing grade.
	Advanced Studio Drawing/Painting	Year	AR080HN1/2			✔	✔	MUST complete ALL semesters of 2D Art 1 AND 2D Art 2 with a passing grade.
Photo Strand	Photo & Design Intro	Semester	AR560GE3	✔	✔	✔	✔	None
	Photo 1	Year	AR500GE1/2	✔	✔	✔	✔	None, Photo & Design Intro is preferred
	Photo 2	Year	AR530GE1/2		✔	✔	✔	MUST complete BOTH semesters of Photo 1 with a passing grade.
	Advanced Studio 2D Design (same as below)	Year	AR070HN1/2			✔	✔	MUST complete ALL semesters of Photo 1 AND Photo 2 with a passing grade.
Digital Art Strand	Digital Art 1	Year	AR460GE1/2	✔	✔	✔	✔	None
	Digital Art 2	Year	AR470GE1/2		✔	✔	✔	MUST complete BOTH semesters of Digital Art 1 with a passing grade.
	Advanced Studio 2D Design (same as above)	Year	AR070HN1/2			✔	✔	MUST complete ALL semesters of Digital Art 1 AND Digital Art 2 with a passing grade.
Graphic Design Stand-Alone Electives	Graphic Design 1	Semester	AR360GE3	✔	✔	✔	✔	None
	Graphic Design 2	Semester	AR370GE3	✔	✔	✔	✔	MUST complete Graphic Design 1 with a passing grade.
Fine Art Studio	Fine Art Studio	Year	AR800GE1/2				✔	MUST complete BOTH semesters of Adv. Studio 3D Design, Adv. Studio 2D Design, OR Adv. Studio Drawing / Painting with a passing grade. *ONLY for students that enter the program at Level 1 instead of Intro. Fine Art Studio is NOT interchangeable with Advanced Studio classes but will run in the same period as the respective Advanced Studio course the student took the year prior.*

Dual Language 2D Strand	Dual Language - 2D Art Intro	Semester	AR040DL3	✔	✔	✔	✔	None
	Dual Language - 2D Art 1	Year	AR050DL1/2	✔	✔	✔	✔	None
	Dual Language - 2D Art 2	Year	AR060DL1/2		✔	✔	✔	MUST complete BOTH semesters of Dual Language 2D Art 1 with a passing grade.

https://drive.google.com/file/d/1qLWmngjBwp4K5-UTJZZhW83T67CunN4f/view?usp=sharing

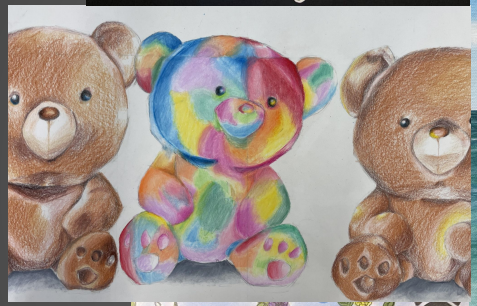
2D ART

2D Art courses range from intro into advanced and portfolio building courses. Students will learn how to use various drawing and painting materials, many different techniques, and feel equipped to grow in their art skills as they progress through each subsequent 2D art course.

In each course, students will be able to delve into skill building as well as conceptual exploration.

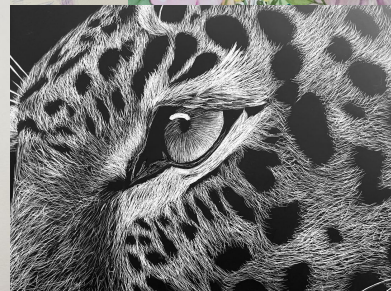








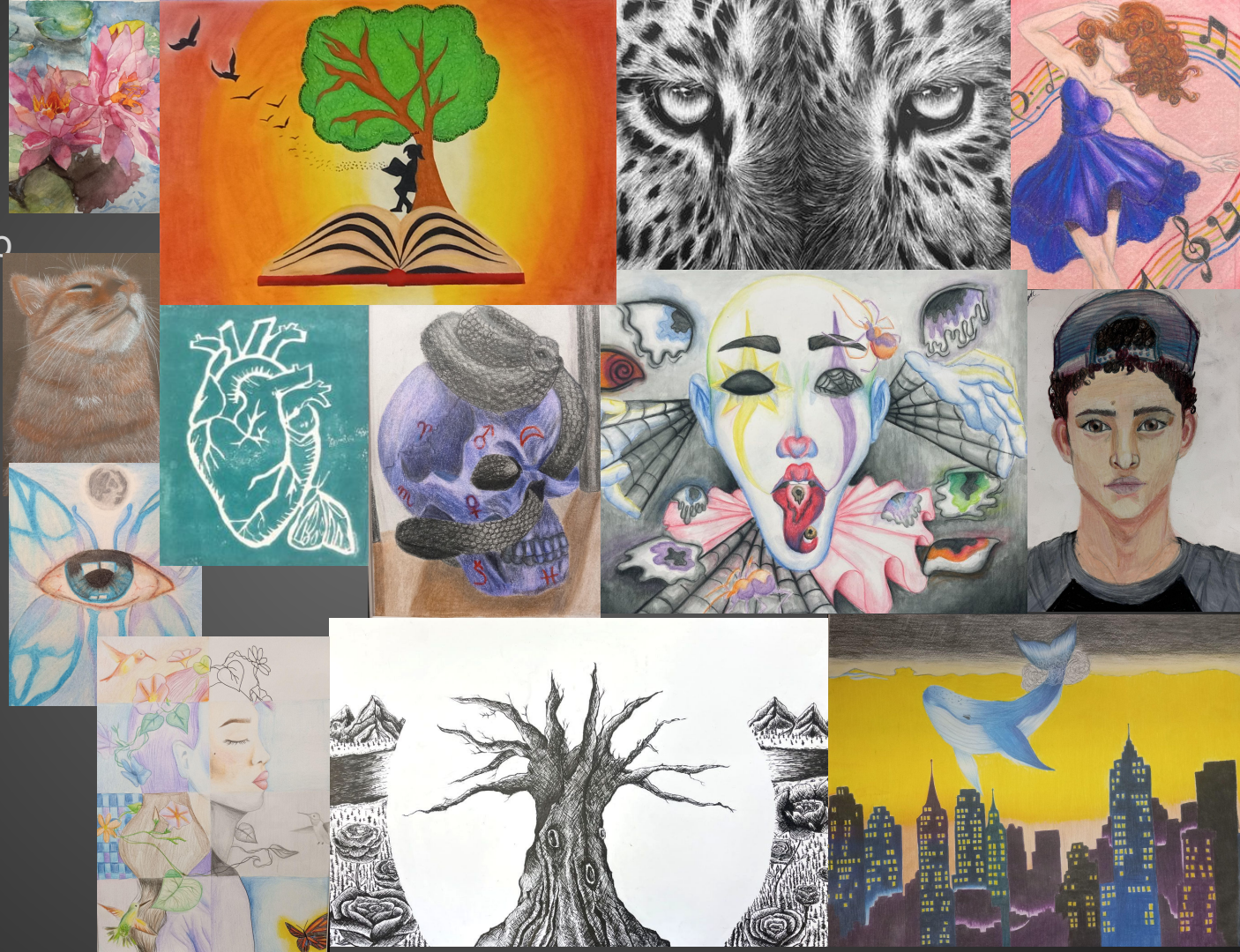


2D ART DL

2D Art DL courses range from intro into level 2. Students will learn how to use various drawing and painting materials, many different techniques, and feel equipped to grow in their art skills as they progress through each subsequent 2D DL art course.

In each course, students will be able to delve into skill building as well as conceptual exploration.

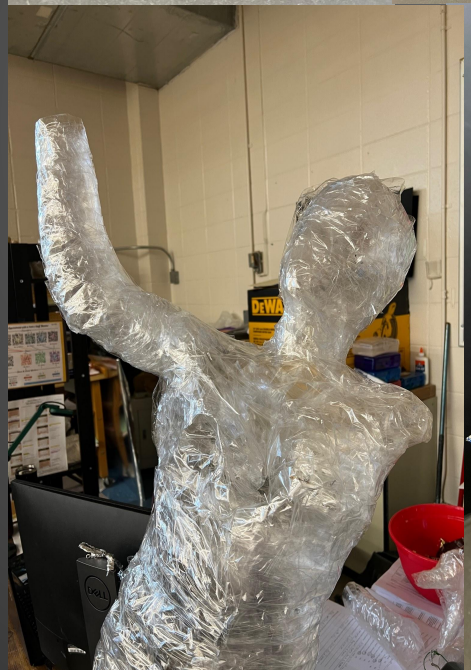


3D ART

3D Art courses range from intro into advanced and portfolio building courses. In this course sequence, students will focus on creative problem-solving through 3 dimensional artmaking. Students will develop a personal style while experiencing a variety of materials and techniques, including but not limited to clay, wood, plaster, foam, metal, glass, and paper mache.

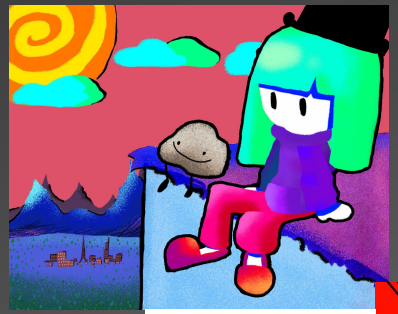
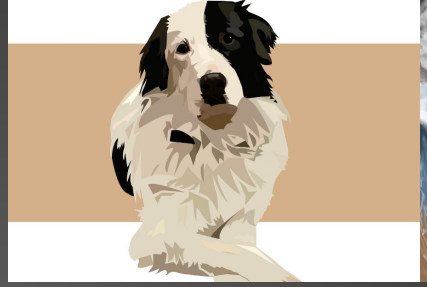


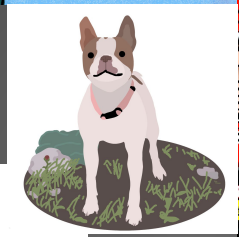


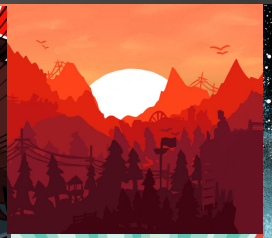



DIGITAL ART

Digital Art courses range from level 1 into advanced and portfolio building courses. In this course sequence, students will explore different digital medias and art-making processes to focus on creative problem-solving through digital media arts. Students will experience a variety of materials and techniques, including but not limited to Adobe Photoshop, Adobe Illustrator, and Adobe Animate.



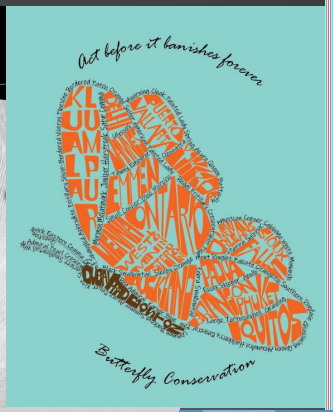


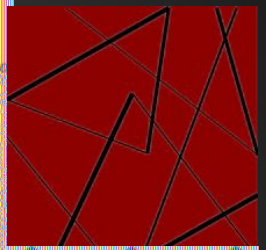


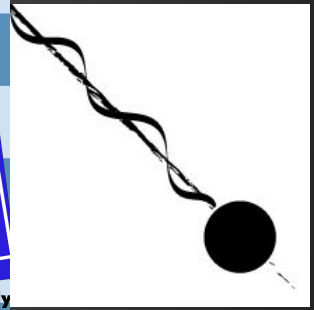


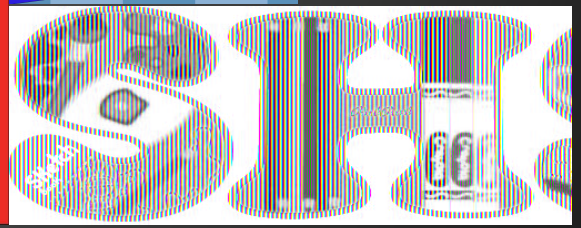
GRAPHIC DESIGN

Graphic Design courses include an introductory semester course and an advanced semester course. In these courses, students will explore different commercial 2D art concepts. These hands-on studio courses focus on creative problem-solving through graphic design and advertising. Students will experience a variety of materials and techniques, including but not limited to Adobe Illustrator, color theory, branding, graphic design, and graphic print



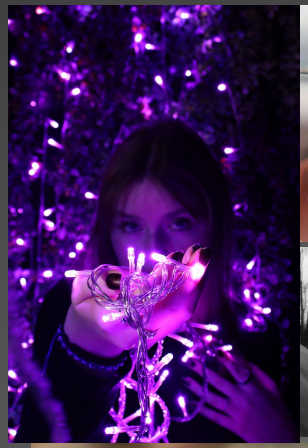
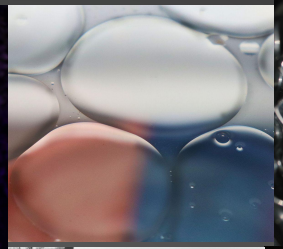
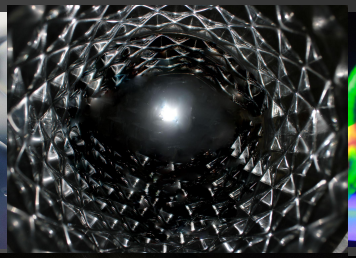




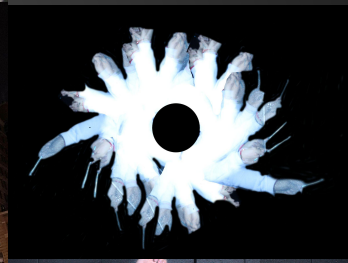


PHOTOGRAPHY

Photo courses range from intro into advanced and portfolio building courses. In this course sequence, students will utilize photography techniques (both digital and analog) to support creative problem-solving through photography. Students use digital & film cameras to extend their photographic skills and will edit images using the Adobe CC. Darkroom & digital projects will be used as students develop a portfolio of their work, reflect on their work and respond to work of peers.

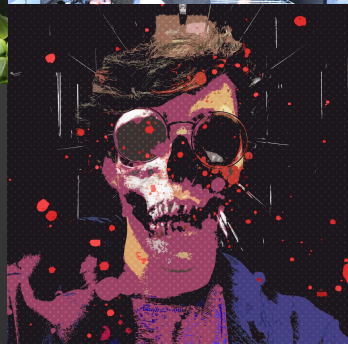














ENGLISH LANGUAGE ARTS

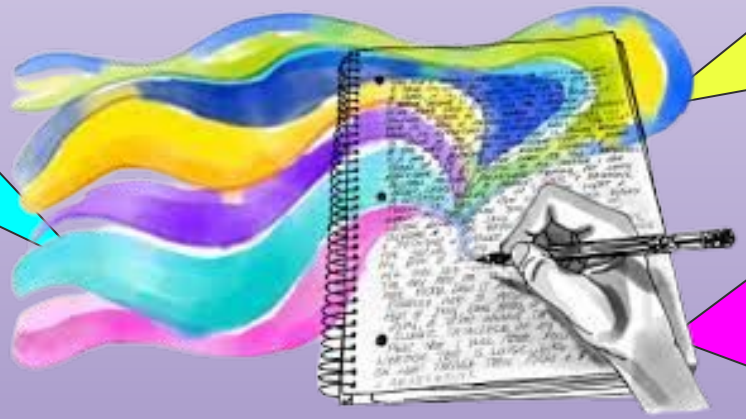
COLLEGE PREP ENGLISH

- **For seniors who need support to become college-ready.**
- Informational reading and writing focused course
- Successful completion with a grade of C or better guarantees placement into a credit bearing course at any Illinois community college or select 4-year universities
- Prerequisites: Completion of ELA 9, ELA 10, and ELA 11

PRODUCTION & PUBLICATION

CREATIVE WRITING

"This class is so great, because you are taking your own voice and running with it. It's truly an experiment where you're building up your own character as well as the craft of writing."



"This is a safe environment, fun, flexible, creative, has no boundaries, welcoming, supportive, funny...It's everything I wish all of school could be."

"I honestly wish I just could take Creative Writing all day long. I learn so much about the people around me, and it' s never not fun. Everything we do is entertaining, and yet we are learning to hone our craft. Seriously, take this class."

Creative Writing is a class that examines the world through poetry, short story, script writing, descriptive sketive, creative nonfiction and more. Learn how to publish your own writing and about future careers. See what the students have to say!

21st CENTURY MEDIA

The Internet Wants You!

Become Media Savvy

Video-based projects, where you will learn how to create and edit your own content, with state of the art equipment and emerging technologies, to become a Youtube personality, Documentary Maker, Broadcast Journalist, or Professional Tik Toker. Practice contemporary storytelling techniques in front of and behind the camera. Project based course.

LEADERSHIP in ACTION

Become a Leader in Your School and Community!

Fun Team Building activities and field trips!

Earn leadership and community service hours in class while making a difference!

Mentor the incoming Freshmen class.

Builds resume for college, scholarship opportunities as well as NHS application.

First Semester

THE THEATRE EXPERIENCE

Peek behind the curtain as we explore theatre both onstage and backstage, while making new friends along the way!

THEATRE

Full Year

Advanced Theatre Production

Challenging and engaging behind the scenes and on-stage work.

~~

As a class, put on your own production and challenge your theatre artistry.

Second Semester

ACTOR'S WORKSHOP

- 1 cup **Games**
- 2 cups **scenes**
- 2 Tbsp **audition prep**
- A pinch of **Shakespeare**
- Add **monologues** to taste

Come join **Actor's Workshop** and learn the magic behind the art, build your confidence, and make new friends!

SPANISH LANGUAGE ARTS

HERITAGE SPANISH

LATINX *studies*

BIENVENIDOS AL CURSO DE LATINX STUDIES. EN ESTE CURSO DE ARTES DEL LENGUAJE, LOS ESTUDIANTES DE GRADO 12 EXPLORARÁN EL CONTEXTO Y LA HISTORIA DE LA IDENTIDAD Y LA REPRESENTACIÓN DE LA COMUNIDAD LATINO/A/X (EJ. RAZA, ETNIA, CLASE, GÉNERO...) LOS ESTUDIOS LATINOX SE ENFOCAN EN LA CULTURA, LOS GRUPOS, Y LAS EXPERIENCIAS DE ESTA COMUNIDAD A TRAVÉS DE DIFERENTES MEDIOS Y RECURSOS.

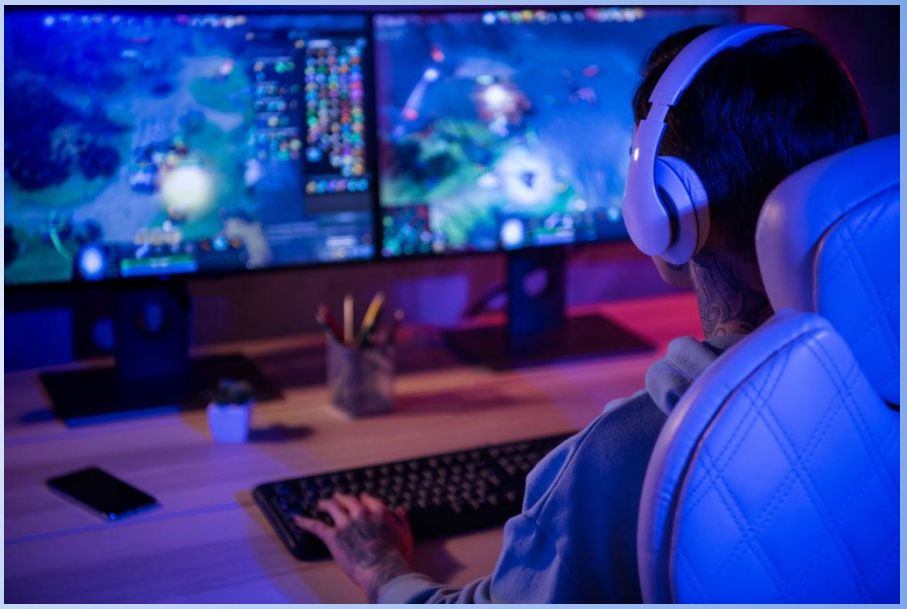
¿Quién soy yo?

BUSINESS

COMPUTER PROGRAMMING

GAME DESIGN

In this course students will learn how to design, document and communicate their design ideas and turn them into finished games. They can apply their game design skills to a range of design challenges, both within the games industry and in other industries where these skills are desirable.



GLOBAL BUSINESS

This semester course covers fundamental business concepts, principles and practices, including global marketing, trade operations and finance policies. Students explore the influence of political systems, language and culture on conducting business.

MULTIMEDIA DESIGN

SPORTS ENTERTAINMENT & MARKETING

This is a specialized marketing course that develops student understanding of the sport/event industries, their economic impact, and products; distribution systems and strategies; pricing considerations; product/service management, and promotion. Students acquire an understanding and appreciation for planning.

ACCOUNTING

This course covers all principles of the accounting cycle. Students will begin by using T accounts, then learn procedures such as entering transactions into journals, posting to ledgers, completing worksheets, preparing financial statements, adjustments, and closing entries. Additionally, topics covered include payroll, petty cash, and depreciation.

MANAGEMENT & ENTREPRENEURSHIP

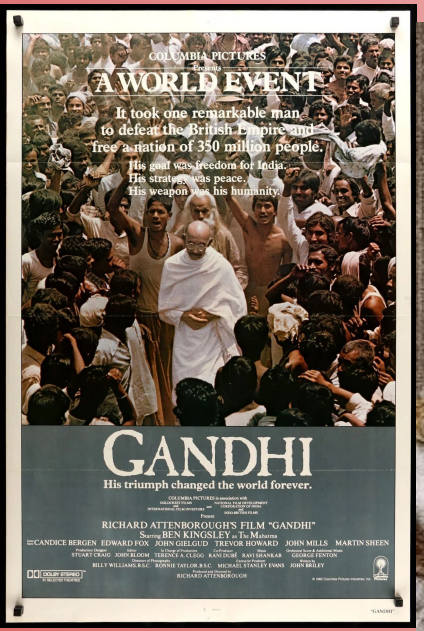
INTERNSHIP

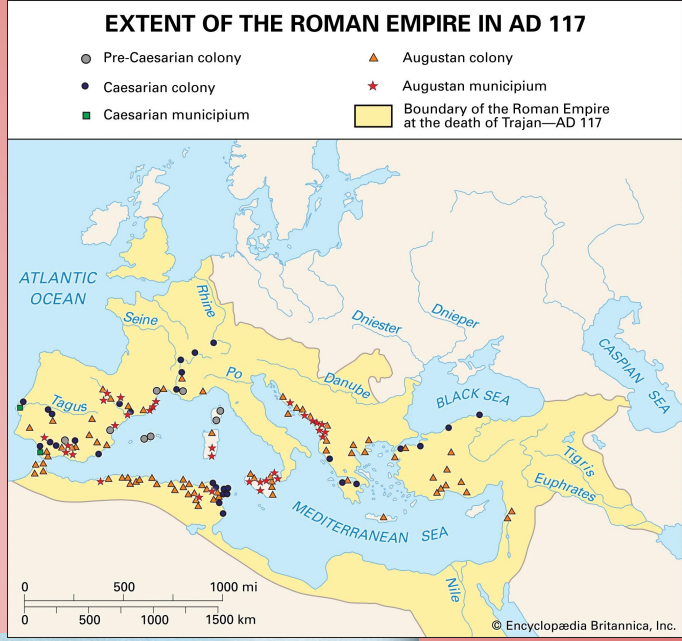
Explore different career options through guest speakers and research. Hone in on your soft and hard skills to prepare you for life after high school. Be sure to sign up for both sections. As the first section teaches you skills to prepare for your internship. The second section is your time to head out to your internship and gain that hands on experience.

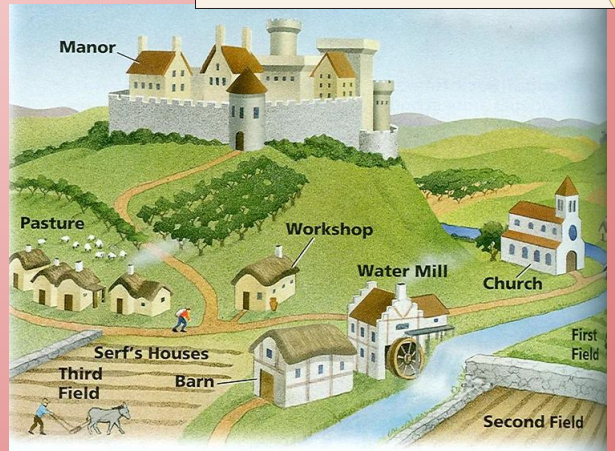
SOCIAL STUDIES

WORLD HISTORY

World History is a two-semester course that traces the historical development of major societies from which present day nations have evolved. It examines the roots of each society, its traditions and its adaptation to change. Geographical background is featured and students will learn the basics of historical research. The course seeks to broaden the student's cultural horizons and develop an appreciation and understanding of other ways of life.







WORLD GEOGRAPHY

- For students who are interested in studying about the physical, cultural, and geopolitical aspects of today's world
- Discover regions and political borders of modern day nations, states, city-states, etc
- Analyze culture and how it impacts the lives of people across the globe
- Interpret current events and their relation to the geopolitical space
- Serves as a great introduction to the Social Sciences/Social Studies

AFRICAN AMERICAN STUDIES

PSYCHOLOGY

AP PSYCHOLOGY

- Year-long.
- College level course
- Lecture, notes, exams, projects

TOPICS DISCUSSED:

- Psychological disorders
- Social psychology
- Brain & nervous system
- Memory, learning, language
- Lifespan development
- Much, much more!

GREAT FOR STUDENTS WHO... have strong study skills, want to be social workers, therapists, or neuroscientists, or just want to learn more about behavior and mental processes!

INTRO TO PSYCHOLOGY

- Semester-long
- Project based, some lecture & notes

TOPICS DISCUSSED:

- Psychological disorders
- Social psychology
- Brain & nervous system
- Sleep, dreams, psychoactive drugs
- Sensation & perception (5 senses)
- Memory, learning, development

GREAT FOR STUDENTS WHO... want a fun elective, prefer hands-on learning, and are ready and excited to be active participants in their learning.

SOCIOLOGY

- Semester-long
- Projects, lecture, notes, movies, documentaries, exams

TOPICS DISCUSSED:

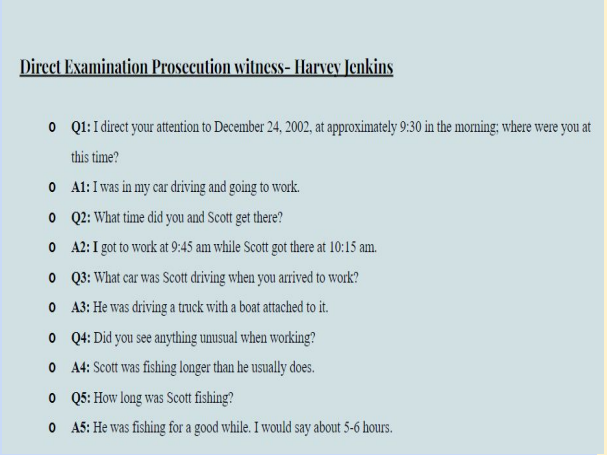
- What is sociology and what do sociologists study?
- Norms, values, and beliefs
- Culture, subculture, counterculture
- Socialization
- Healthy vs. unhealthy social groups
- How cults are formed

GREAT FOR STUDENTS WHO... are organized, enjoy self-paced work, prefer projects, enjoy watching movies and documentaries, and enjoy or are open to learning about others' experiences and how they differ from our own.

LAW 1

1 semester class

Criminal Law Class



Direct Examination Prosecution witness- Harvey Jenkins

- **Q1:** I direct your attention to December 24, 2002, at approximately 9:30 in the morning; where were you at this time?
- **A1:** I was in my car driving and going to work.
- **Q2:** What time did you and Scott get there?
- **A2:** I got to work at 9:45 am while Scott got there at 10:15 am.
- **Q3:** What car was Scott driving when you arrived to work?
- **A3:** He was driving a truck with a boat attached to it.
- **Q4:** Did you see anything unusual when working?
- **A4:** Scott was fishing longer than he usually does.
- **Q5:** How long was Scott fishing?
- **A5:** He was fishing for a good while. I would say about 5-6 hours.

- ❖ Civil vs Crime
- ❖ Crimes against a person
- ❖ Crimes against a property
- ❖ Lawyer and Jury Skills
- ❖ Justice System
- ❖ Mock Trial

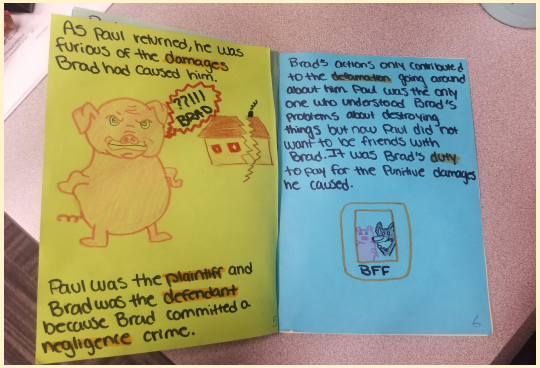
If you are interested in Criminal Justice come take Law 1!

★ Need a C or Higher to take Law 2

LAW 2

1 semester class

Civil Law Class



★ Have to take law 1 before law 2

- ❖ Torts law
- ❖ Contact Law
- ❖ Family Law
- ❖ Constitutional law
- ❖ Field trip
- ❖ Lawyers visits
- ❖ Mock Trial
- ❖ Case Briefings

if you are interested in business and/or becoming a corporate lawyer

MATH

AP COMPUTER SCIENCE A

Introduction to AP Computer Science A

(Click the link to see a video)

AP Computer Science A (AP CSA) is an introductory college-level course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. The course is taught using one of the most in-demand programming languages, Java.

Open to students in Grades 10-12

AP Statistics

What is AP Statistics?

AP Statistics is a college-level introductory statistics class taught in high school.

Statistics is much more than making graphs and calculating mean, median, and mode. Rather, it is using data to evaluate claims and make predictions. For example:

- We will learn the principles of experimental design to answer the question "Does taking caffeine affect your pulse rate?"
- We will learn the principles of survey construction to answer the question "Do the characteristics of an interviewer affect the responses to a survey question?"
- We will learn how to analyze variables to answer questions like: "What is the relationship between fat and calories in McDonald's products?"
- We will learn the principles of statistical inference to answer questions like: "Do the majority of couples kiss to the right?" and "Does seat location affect performance in a math class?"

Who can take AP Statistics?

Any student who has completed Algebra 2 and earned a B or higher is eligible to take AP Statistics. AP Stats counts for math credit towards graduation, it is a weighted grade, and looks great on college applications. It is also possible (and often encouraged) to take AP Stats simultaneously with another math course such as Precalculus or AP Calculus.

How hard is AP Stats?

It's a college course, so the expectations are high. You'll be expected to do homework nearly every day, and not just math problems. There is reading and writing involved. In fact, if you think math is all formulas, equations, and calculations, you'll soon find that this isn't really a math course. It's a course in reading, analyzing, thinking, and writing clearly!

Why should you take AP Statistics?

It is a fresh start: This isn't a typical math class. You don't need to remember how to factor a polynomial, graph a sine curve, or prove that triangles are congruent. However, this definitely doesn't mean the class will be easy! You will need good critical thinking and communication skills.

It is a great preparation for college. It is taught over a full year (instead of a semester in college) so you have more time to learn the material. The skills you learn will help you in a wide variety of fields. Current students will tell you that AP Statistics has already helped them in their psychology and science classes.

The class is moving toward a "Experience First, Formalize Later" approach! This means that that students are working collaboratively to think, to discuss, and to construct their own understanding of new content before the teacher helps students to arrive at formal definitions and formulas.

You will NEVER ask: "When will we ever use this?" Examples and exercises are based on real-world studies in a variety of fields.

College credit, for much less money than you would pay in college.

AP PreCalculus

AP Calculus

Majors that REQUIRE Calculus at the University of Illinois

- Mathematics Education
- Mathematics
- Engineering (Civil, Mechanical, Aerospace, Chemical, etc.)
- Economics
- Computer Science
- Molecular and Cellular Biology
- Landscape Architecture
- Finance
- Actuarial Science
- Physics
- And more!

What is AP Calculus?

AP Calculus is a college-level introductory calculus class taught in high school that is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically and verbally, and to make connections amongst those representations.

Who can take AP Calculus?

Any student who has completed PreCalculus eligible to take AP Statistics. AP Calculus counts for math credit towards graduation, it is a weighted grade, and looks great on college applications. It is also possible (and often encouraged) to take AP Calculus simultaneously with AP Statistics.

Why should you take AP Calculus?

It is a great preparation for college. It is taught over a full year (instead of a semester in college) so you have more time to learn the material. The skills you learn will help you in a wide variety of fields. If you take the AP Calculus test and score well enough, you can earn college credit, for much less money than you would pay in college.

College Prep: Transition to College Algebra

The Postsecondary and Workforce Readiness (PWR) Act establishes a new statewide system for transitional math instruction that provides a mathematical foundation for college and careers that high school seniors are lacking from their previous education.

TCA is for seniors who have meet their high school mathematics graduation requirements and who may be placed into a remedial college math program. Students must meet other math grade requirements for this course outlined by the PWR..

TCA and other transitional math courses are developed in conjunction with ECC 509 and all feeder districts.

Students who earn a C or higher (grade is cumulative for semesters 1 & 2) in TCA can be placed into a course up to College Algebra, which saves time and money. All Illinois community colleges participate in this program. Check with other public and private universities.

COLLEGE PREP - TRANSITION to QUANTITATIVE STATS and LITERACY

- Transitional Math courses are designed to increase college readiness for high school seniors.
- Transitional math courses use problem-based instructional design to allow students to revisit and master previously taught math.
- Students should be advised to take the Transitional Math course that is appropriate for their intended college major and/or career pathway.

Transition to
Quantitative Literacy/Statistics

Audience

Student who will need Liberal Arts Math (General Education Math) or Elementary Statistics but is not ready for dual credit, dual enrollment, or AP versions of those courses in the senior year.

Common major/programs

Most AA degrees such as history, art, philosophy, English

*Transition to QL/Stats is a better option for students who need College Algebra but feel Transition to STEM is too difficult. Many colleges have options to reduce time to complete College Algebra.

COLLEGE PREP - TRANSITION to TECHNICAL MATH

- The Transition to Technical Math course is for students who have career goals involving occupations in technical fields that do not require advanced algebraic or statistical skills.

- Successful completion of this course with an overall grade of C or better guarantees student placement into a credit-bearing post-secondary mathematics course required for a community college career and technical education program.

SCIENCE

EARTH & SPACE SCIENCE

This is a science elective course, but can also fulfill the physical science graduation requirement. The course includes a study of the origin and composition of the universe, as well as Earth's physical environment and how it is changing. Students will have the opportunity to construct and carry out experiments, develop their scientific reasoning and writing skills, support a claim with evidence, better interpret figures and analyze data, and build upon collaborative teamwork skills.

Key Topics Covered

- The Big Bang
- Stars
- Galaxies
- Gravity
- Black Holes
- The Solar System
- Earth's Layers
- Continental Drift
- Seafloor Spreading
- Plate Tectonics
- Convection
- Volcanoes
- Earthquakes

- Forces & Faults
- Seismic Waves
- Tsunamis
- Rocks
- Minerals
- Crystals
- The Water Cycle
- Weathering
- Erosion
- Rockslides
- Mudflows
- Dust Storms
- Surface Water

- Groundwater
- Watersheds
- Caves
- Sinkholes
- Geysers
- The Atmosphere
- Clouds
- Global Climate
- Wind
- Tornadoes
- Lightning
- Thunderstorms
- Natural Disasters

- Humidity
- Hurricanes
- Precipitation
- Natural Hazards
- Carbon Cycle
- Greenhouse Effect
- Climate Change
- Pollution
- Sea Level Rise
- Human Impacts
- Feedback Loops
- Climate Refugees
- Sustainability

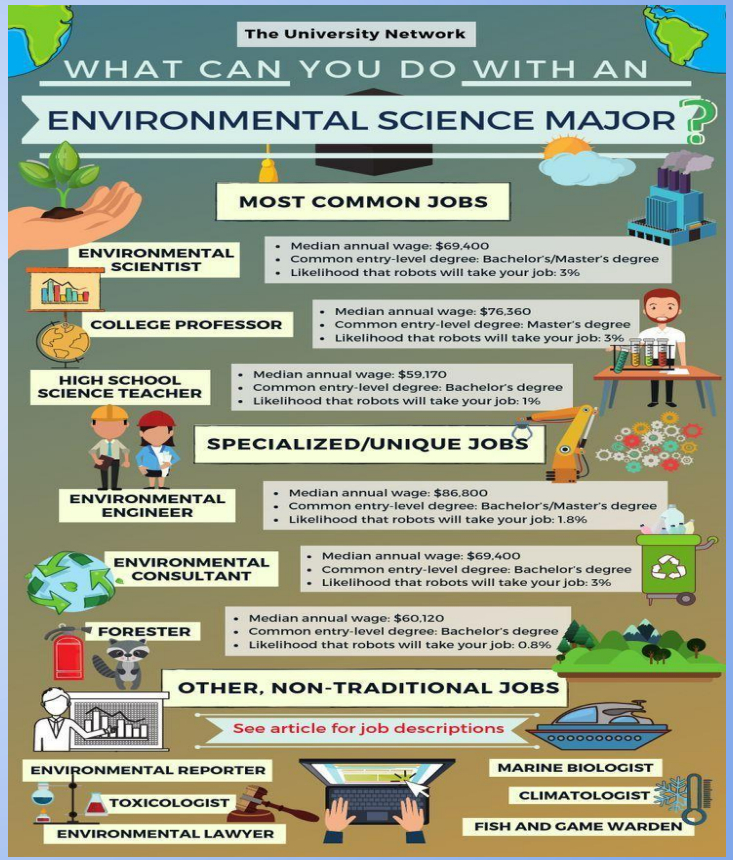
ENVIRONMENTAL SCIENCE

In this course you will explore phenomena that interrelationships of the natural world and human activity. Environmental Science is often considered a culminating applied science where you will utilize critical thinking and inquiry to complete hands -on labs and field work.

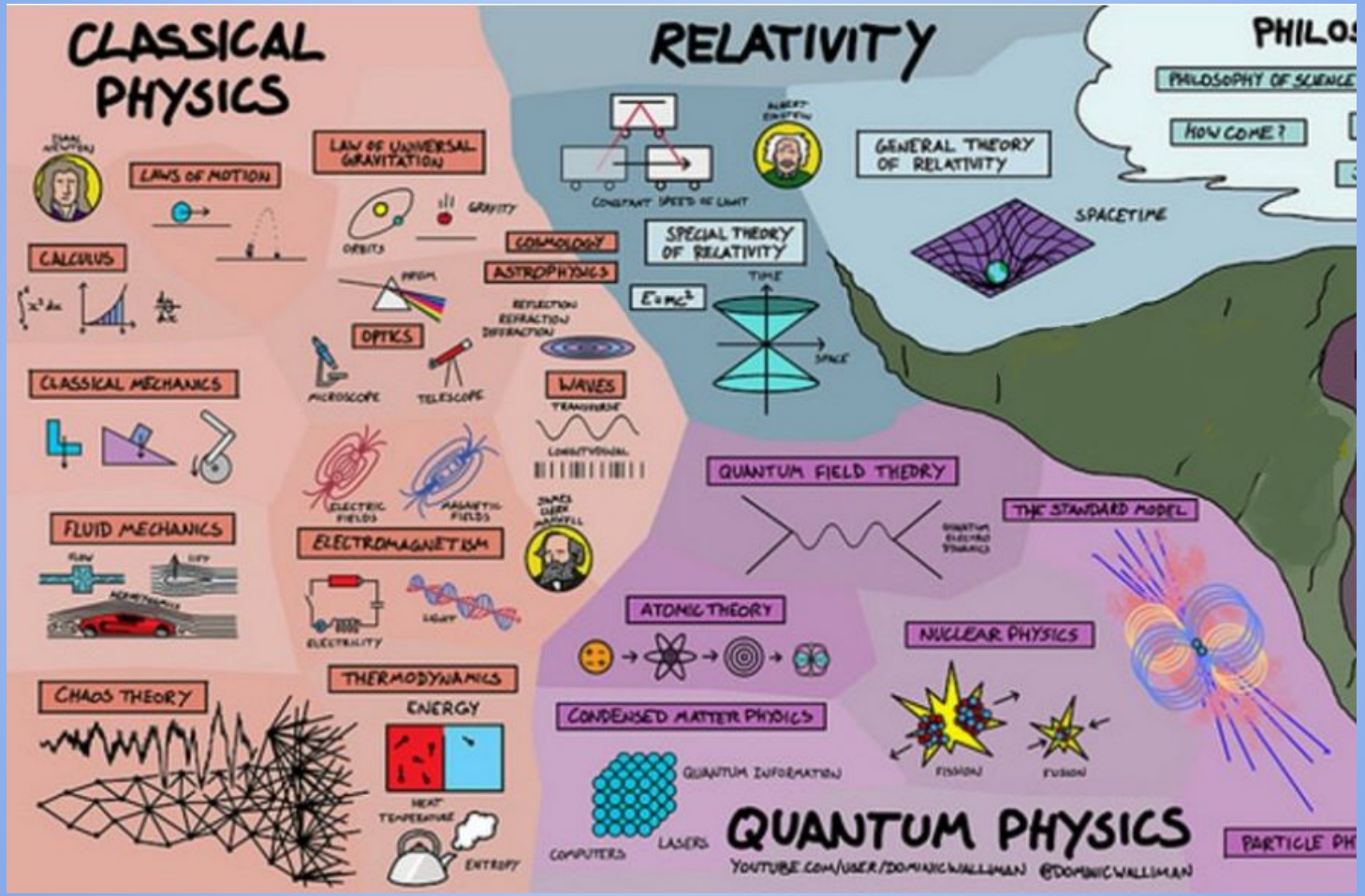
AP ENVIRONMENTAL SCIENCE

AP Environmental Science is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

Prerequisites: Students should have completed one year of life sciences (biology) and one year of physical science (chemistry or IPS). It is beneficial if students complete earth science, but is not required.



PHYSICS


CLASSICAL PHYSICS
LAWS OF MOTION
LAW OF UNIVERSAL GRAVITATION
GRAVITY
ORBITS
CALCULUS
COSMOLOGY
ASTROPHYSICS
PRISM
OPTICS
REFLECTION
REFRACTION
DIFFRACTION
MICROSCOPE
TELESCOPE
CLASSICAL MECHANICS
WAVES
TRANSVERSE
LONGITUDINAL
ELECTRIC FIELDS
MAGNETIC FIELDS
FLUID MECHANICS
ELECTROMAGNETISM
ELECTRICITY
LIGHT
CHAOS THEORY
THERMODYNAMICS
ENERGY
HEAT
TEMPERATURE
ENTROPY
RELATIVITY
CONSTANT SPEED OF LIGHT
GENERAL THEORY OF RELATIVITY
SPECIAL THEORY OF RELATIVITY
TIME
SPACE
SPACETIME
PHILOS
PHILOSOPHY OF SCIENCE
HOW COME?
QUANTUM FIELD THEORY
THE STANDARD MODEL
ATOMIC THEORY
NUCLEAR PHYSICS
FISSION
FUSION
CONDENSED MATTER PHYSICS
QUANTUM INFORMATION
COMPUTERS
LASERS
QUANTUM PHYSICS
YOUTUBE.COM/USER/DOMINICWALLIMAN @DOMINICWALLIMAN
PARTICLE PH

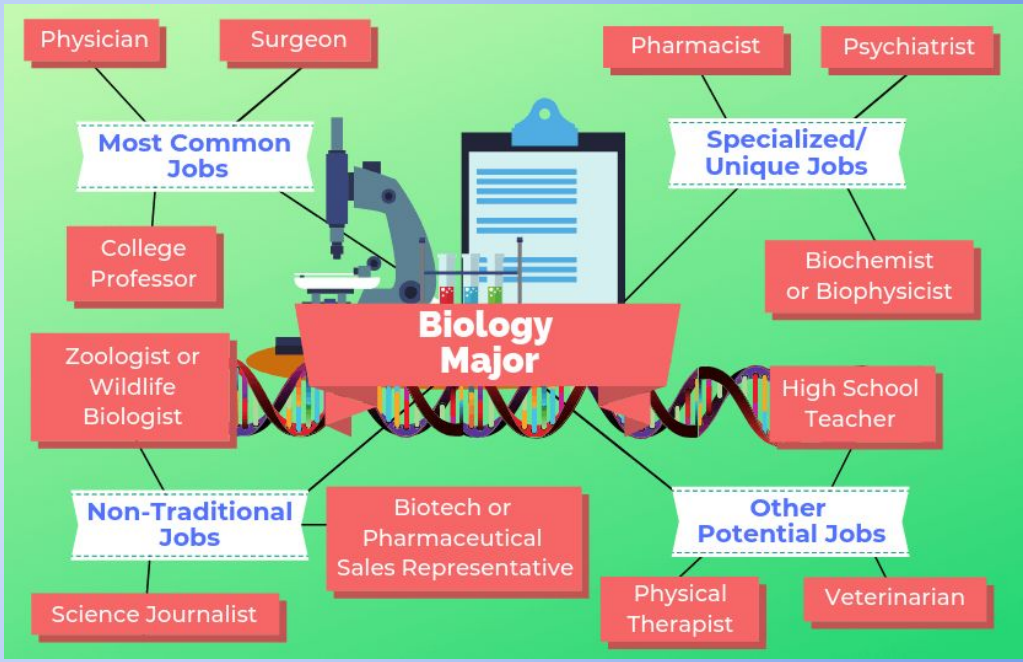
AP BIOLOGY

AP Biology is an introductory college level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: Evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions.

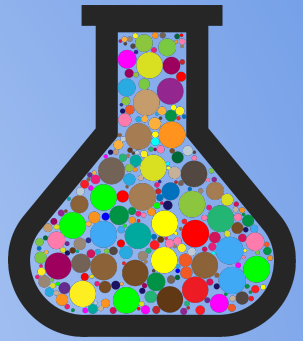
College Course Equivalent: the ap biology course is equivalent to a two semester college introductory biology course for biology majors.

Prerequisites: Students should have successfully completed high school course in biology and chemistry.

Laboratory requirement: This course requires that 25 % of the instructional time will be spent in hands on lab work,to provide students with opportunities to apply the science practices.



AP CHEMISTRY

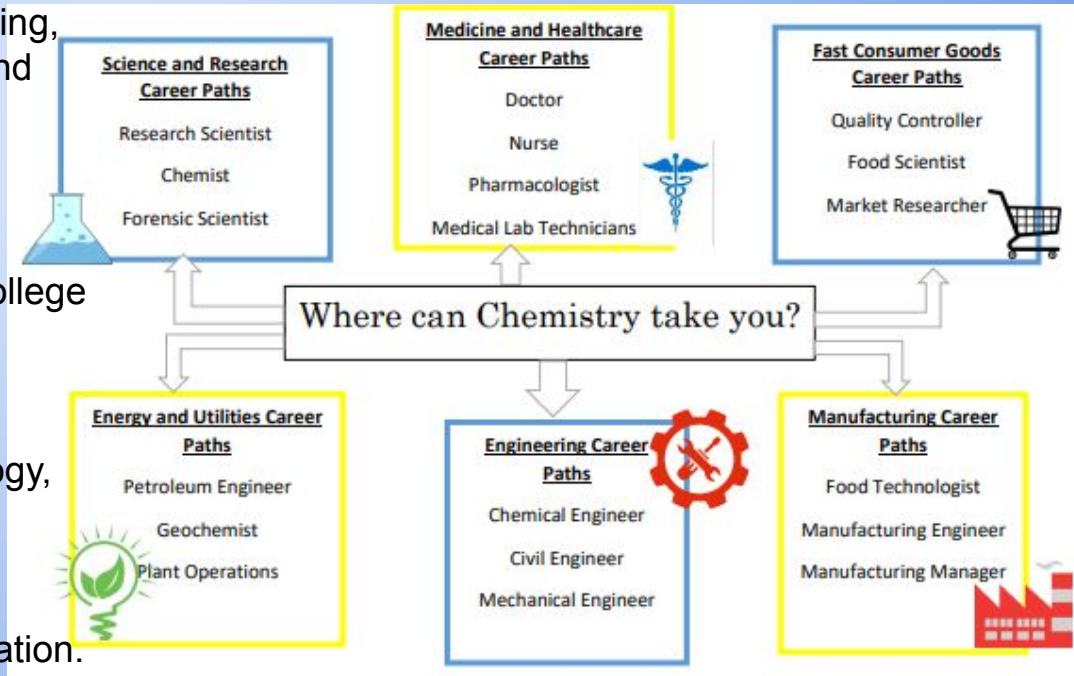


What is AP Chemistry?
The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry based investigations, as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

College Course Equivalency: The AP chemistry course is designed to be equivalent of general chemistry course usually taken during the first college year.

Prerequisites: Students should have successful completed a general high school chemistry, biology, and algebra II course.

Lab Requirement: The course requires 25% of instruction time engages students in lab investigation.



CTE TECHNICAL

Tech Ed Curriculum

Manufacturing Pathway (SEHS)	Automotive Pathway	Welding Pathway (EHS)	Pre-Engineering Pathway
Production Technology 9-12*	Automotive Technology 10-12*	Fundamentals of Welding 10-12	PLTW: IED 9-12
Precision Manufacturing 10-12	Advanced Automotive Technology 10-12	Welding Technology I 11-12	PLTW: POE 10-12 / PLTW: DE* 10-12 / PLTW: CEA 10-12
Adv. Precision Manufacturing 11-12	Automotive Service 11-12	Welding Technology II 11-12	PLTW: EDD 11-12

Science (4 yrs)
Biology
IPS
Chem
Physics (AP)

Math (4 yrs):
College Level
Trans College Algebra
Trans Tech Math

Working on cars isn't for everybody. However, for some of us, it is a passion. You gain a real sense of accomplishment when you repair a broken car and get it running like new again.
This is precisely what a skilled auto mechanic does. Taking a course on auto mechanics is a great idea for many people. It doesn't matter if you want to find a job, or you just work on cars as a hobby – a class can help.
Practice is important – but practicing something the wrong way can be detrimental. Auto mechanical courses can provide guidance and teach you methods and not techniques you may have discovered on your own.

Automotive Technology
Grades 10-12 Full year/2 credits
Students will: Combine lab work with related instruction in the four National Automotive Technicians Education Foundation areas. focus on electrical/electronics, brakes, steering and suspension, engine design, construction and performance. Demonstrate use of hand tools, power tools and automotive diagnostic equipment.

Advanced Automotive Technology
Grades 11-12 Full year/2 credits
Prerequisite: Automotive Technology Students will: use a variety of testing devices, equipment and specialty tools to supplement their learning in the 4 NATEF areas of advanced systems diagnosis. Apply intermediate testing and diagnostic techniques on electrical systems, fuel injection, ignition, computer systems, suspension, steering and brakes. Prepare for ASE (Automotive Service Excellence) testing.

PLTW ENGINEERING

- **Intro to Engineering Design (IED)**
  - Learn the basics of the engineering design process, CAD modeling, and 3D printing while completing team-based projects such as designing a phone case or designing a home on Mars.
- **Principles of Engineering (POE)**
  - **Pre-requisite class**: Intro to Engineering Design
  - Learn about the fundamentals of the fields of Civil, Mechanical, and Electrical Engineering while completing team-based projects like building bridges, solar and hydrogen power cars, and electrical circuits.
- **Civil Engineering and Architecture (CEA)**
  - **Pre-requisite class**: Intro to Engineering Design
  - Discover careers in the fields of Civil Engineering and Architecture while designing houses, building scale models, testing soils, and performing construction surveys.
- **Engineering Design and Development (EDD)**
  - **Pre-requisite classes**: Intro to Engineering Design and at least 1 other PLTW Engineering Course
  - A senior capstone class where you can apply all the knowledge you gained from previous PLTW classes while working in a team to design and innovate a new product to solve a real-world problem.

All courses (except EDD) require students to take a national End of Course Exam.

Students can earn college credit based on their exam score and grades at many colleges and universities!

CTE
HEALTHCARE SCIENCE