GCHS New Course Proposals 2020-2021

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Dystopian/Fantasy

Objective/Expectations

To increase student understanding, appreciation, and enjoyment of literary genres, while focusing on the thematic connections between Dystopian/Fantasy young adult literature, and real-world connections.

- ★ Project-Based Learning Approach
- ★ Meeting Next Generation State Standards in ELA
- ★ Sample Texts -
  - Harry Potter Series
  - Hunger Games
  - Among the Brave Series
  - Lord of the Rings
  - Twilight Series
  - The Divergent Series
  - Various Short Stories

TED Ed

GCHS TED Ed - Student Talks

Objective/Expectations

To give our students voice and choice to critically analyze, write, and speak on ideas that are relevant to their lives. Students will present their own "ideas worth spreading" through short TED style talks.

- ★ Meeting Next Generation State Standards in ELA
- ★ Preparation for College Essay Writing
- ★ Soft Skills include -
  - Communication
  - Creativity
  - Critical Analysis
  - Problem-Solving
  - Interpersonal Skills
  - Time Management

Pilot Ground School

Pilot Ground School

Objectives

Ground School Aviation is meant to offer students the opportunity to apply the scientific principles that are learned in other courses. This would include the effect of speed and altitude on the human body. Navigation, land masses and atmosphere utilize the Earth Sciences. Fluids and chemical mixes of fuel and lubricants utilize Chemistry. Dynamics of levers, balance and mass, sound waves, voltage and watts are all utilized in Physics. Math is incorporated in the calculation of formulas, graphs, weight and balance, speed and rate of change. Students will use these skills learned in math and science classes while exploring potential employment opportunities in aviation and related fields.

Expectations

This is a one-year course that gives students an introduction to the relationship between science and aviation. Students will develop models to predict and show relationships among variables. The teacher will be using the AOPA High School Aviation STEM Curriculum . Teachers will be required to participate in a 3 day professional development workshop provided by AOPA. Teachers will be required to submit four surveys with all required data approximately 4 times a year. This course will be offered as an elective to all 10th, 11th and 12th grade students.

Stempilot’s curriculum drives meaningful, project based STEM learning

Pilot Ground School

New York State Science Learning Standards

Cross Cutting Concepts

1. Patterns
2. Cause and Effect
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter
6. Structure and Function
7. Stability and Change

New York State Science Learning Standards

Science and Engineering Principles

1. Asking Questions and Defining Problems.
2. Developing and Using Models.
3. Analyzing and Interpreting Data.
4. Using Mathematics and Computational Thinking.
5. Constructing Explanations and Designing Solutions.
6. Obtaining, Evaluating, And Communicating Information

Facing History and Ourselves

Facing History and Ourselves

Objective:

Facing History fosters empathy and reflection, improves students' academic performance, reinvigorates teachers, and builds safe and inclusive schools. This course integrates the study of history, literature, and human behavior with ethical decision making and innovative teaching strategies. The course promotes students historical understanding, critical thinking, and social-emotional learning. Students are asked to explore the complexities of history, and make connections to current events, they reflect on the choices they confront today and consider how they can make a difference.

Purpose:

The students will face our collective history and how it informs our attitudes and behaviors allows us to choose a world of equity and justice. Facing History resources address racism, prejudice, and antisemitism at pivotal moments in history. Facing History approach to pedagogy and classroom resources will help students become thoughtful, responsible citizens.

College U.S. History & Government /
U.S. History & Government Honors

Objectives/Expectations

This course will complement the new Social Studies Frameworks historical thinking skills, and it will strengthen and broaden skill sets available to students who are taking U.S. History and Government. This course will be running in partnership with LIU Post.

Students will learn American Civilization to 1877 in the fall and American Civilizations Since 1877 in the spring semester. Interested students can earn college credit for either of these courses.
(Tuition is $290 for each 3-credit class).

The Era of Civil War and Reconstruction

Objectives/Expectations

This course will complement the new Social Studies Frameworks historical thinking skills, and it will strengthen and broaden skill sets available to students who are taking U.S. History and Government.

This new course will be running in partnership with LIU Post. Students will learn about the Era of Civil War and Reconstruction in the fall and spring semester. Interested students can earn college credit for either of these courses.
(Tuition is $290 for each 3-credit class).

Facing History and Ourselves

College U.S. History & Government / U.S. History & Government Honors

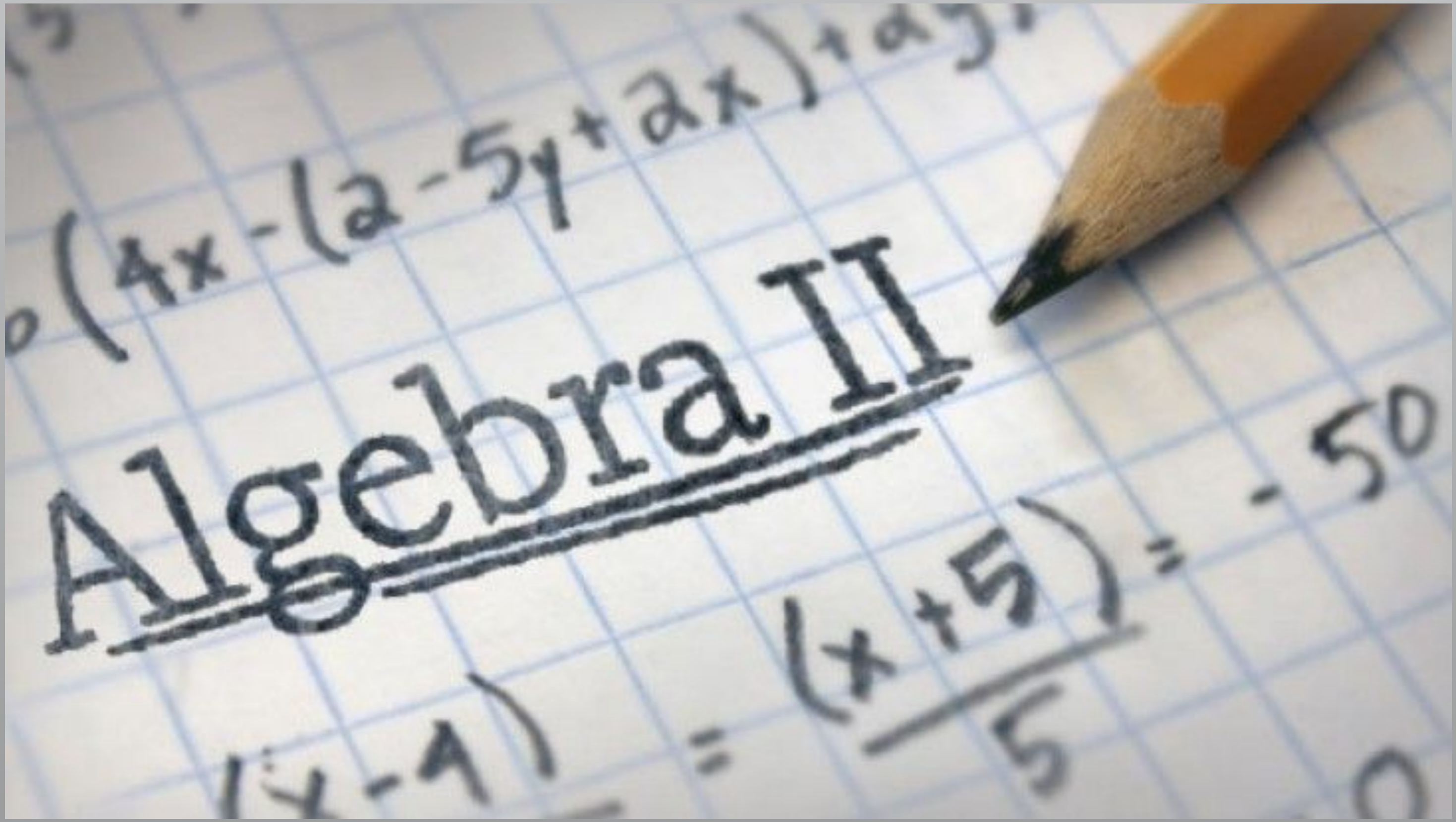
The Era of Civil War and Reconstruction

Historical Thinking Skills

1. Gathering, Interpreting and Using Evidence
2. Chronological Reasoning and Causation
3. Comparison and Contextualization
4. Geographic Reasoning
5. Economics and Economic Systems
6. Civic Participation

New Social Studies Framework: The College, Career, and Civic Life (C3) Framework and the Inquiry Arc

1. Developing questions and planning inquiries
2. Applying disciplinary concepts and tools
3. Evaluating sources and using evidence
4. Communicating conclusions and taking informed action



Algebra II Explorations

Objective/Expectations

Students will explore how concepts learned in Algebra II can be applied to real world settings.

Next Generation Math Standards for Algebra II

- Polynomials
- Factoring
- Solving Polynomial, Rational and Radical Equations
- Complex and Real Numbers
- Trigonometry
- Exponents and Logarithms
- Geometric Series
- Probability and Statistics

Creative Mathematical Problem Solving

Objective/Expectations

Students will learn the content for mathematics competitions, including such topics as...

- Elementary Number Theory
- Elementary and Advanced Algebra
- Elementary and Advanced Geometry
- Area and Volume
- Probability
- Trigonometry
- Counting Principle
- Combinatorics

American Mathematics Competitions

Cybersecurity

Objective/Expectations

This course will help to enhance our Computer Science course offerings in the high school. Requiring no computer science prerequisites, this course will be open to all students.

Computer Science K-12 Framework

- Unit 1: What is Cybersecurity?
- Unit 2: Digital Citizenship and Cyber Hygiene
- Unit 3: The ABCs of Cryptography
- Unit 4: Software Security
- Unit 5: Networking Fundamentals

Italian I

Objective/Expectations

This course will be designed for any student who wishes to develop listening, speaking, writing and reading skills in Italian. It is designed for any student who has the desire to learn a foreign language and develop a deep appreciation for the Italian culture. Emphasis will be placed on students' ability to communicate ideas at a beginner level. Ideally, those students who have taken Spanish through their Sophomore year, but either do not wish to continue their studies in Spanish or wish to learn another language, will have the opportunity to do so. This will enable all students to study foreign languages all four years and provide them with the opportunity to become multilingual, which is a highlight on a college entrance application.

The students will be able to enter a global community through the use of technology, communication, and cultural appreciation. Foreign language study will help students advance their careers and make cultural connections.