



Geneseo High School- Course Proposal

State Course Code: 01002A001

Name of Course: English 10 Pre-AP (replacing honors english 10)

Will This Course Be Weighted?: Yes

Targeted Grade Level/s and Students: 10th Grade Students

Is this course an elective?: - This course is an option for 10th graders and will count towards one of their 4 years of English requirements towards high school graduation.

Rationale for the new course: English 10 Pre-AP aims to provide students with the skills and knowledge necessary for success in higher-level English courses including AP Lit, AP Lang, and dual credit College English 101/102.

Areas of Focus:

- **Reading Closely:** Students read closely and analyze a range of complex literary and informational texts.
- **Valuing Evidence:** Students evaluate textual evidence and incorporate it effectively in writing and speaking.
- **Noticing language choices:** Students understand how writers and speakers use specific words and sentences to move the thoughts, emotions, and actions of readers and listeners.

Unit Foundations: These big ideas are integrated across all units:

- Engaging with texts
- Constructing texts
- Focusing on language
- Investigating through research
- Entering the conversation

Unit Names:

- Argument
- Persuasion in Literature
- Voice in Synthesis
- Purpose in Poetry and Prose

Any estimated costs:

- There is a \$3000 dollar annual cost to access the curriculum, resources, and assessments from the College Board Website.
- PD for the classroom teacher
- Summer curriculum work



Geneseo High School- New Course Proposal **2024-2025 School Year**

Name of Course: Project Lead The Way- Principles of Engineering

Targeted Grade Level: Juniors/Seniors

Is this course an elective?: Yes.

Prerequisite Course: Students must have successfully completed Introduction to Engineering Design.

Rationale for the new course: Looking at our Xello data, we have many students who attend GHS who are interested in pursuing a career in engineering. This will allow us to continue a two year pathway for students who are interested in this profession.

Description of Course: Students explore how modern engineers help improve the world through diverse engineering fields, such as product design, mechanical design, infrastructure, and sustainability. Students learn and use some of the cutting edge tools engineers use in robotics, 3D modeling, programming, and prototyping.

Four Units:

Unit 1 Product Design and Development

Unit 2 Designing Infrastructure and Developing Sustainability

Unit 3 Mechanical Design

Unit 4 Application of Robotics

Main Course Concepts/Skills/Topics:

Design Process Experience

- Solve a problem using an iterative engineering design process
- Work collaboratively on a team to design a product or solve a problem
- Document in detail the engineering design process used to solve a problem or design a product
- Develop a detailed and comprehensive design brief
- Brainstorm to generate creative ideas and potential solutions to a problem
- Carry out a plan to compare alternate solutions and select the best solution path
- Evaluate a design solution with respect to design requirements

Experimental Design and Testing Experience

- Design an experimental protocol to investigate a phenomenon
- Develop a test plan to compare alternate solutions
- Collect and analyze data to draw conclusions
- Accurately represent experimental data using visualization techniques and statistical models

Modeling Experience

- Create concept sketches to represent ideas
- Create technical drawings to represent solutions
- Create hand-drawn and scaled technical drawings
- Create and modify 3-D solid computer models
- Develop models (including conceptual, graphical, mathematical, physical, and computer) and simulations to represent information, objects, systems, and processes.
- Use CAD software to develop parametric models, calculate beam deflection, determine life cycle assessments, and analyze a pulley system.

Computational and Analytical Skills

- Use data to inform decisions and make predictions
- Apply abstraction to generalize a problem and solutions
- Collect, organize, and analyze data to define a problem
- Use algorithms to create solutions
- Write programming code for a project involving a sequence or system of tasks
- Use a variety of methods for identifying and correcting errors in a program code

Project Management Experience

- Project scheduling and collaboration
- Act as a project lead to solve an engineering problem



Geneseo High School- New Course Proposal

Name of Course: **Veterinary Science**

Targeted Grade Level/s and Students: **11th and 12th**

Is this course an elective? **Yes**

Rationale for the new course: It is the third class in the sequence in animal science. It will create a pathway for students wanting to explore Veterinary Science.

Description of Course:

This course will develop students' understanding of the small and companion animal industry, animal anatomy and physiology, animal ethics and welfare issues, animal health, veterinary medicine, veterinary office practices, and animal services to humans. Topics to be discussed include veterinary terminology, anatomy, and physiology, pathology, genetics, handling and restraint, first-aid and physical examinations along with common surgical skills. Career exploration will focus on veterinarians, veterinary lab technicians, office lab assistants, small animal production, research lab assistant, and animal nutrition lab technicians. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration, and reinforcement of academic concepts.

Unit Names:

- 1) Scientific Research
- 2) Veterinary Fundamentals
- 3) Cellular Biology
- 4) Anatomy and Physiology
- 5) Reproduction
- 6) Veterinary Procedures
- 7) Animal Behavior
- 8) Animal Production

Main Course Concepts/Skills/Topics to be taught:

Scientific Research

- Students will use variables when collecting data for their introduction to research and work on writing a proper conclusion to their review.

Veterinary Fundamentals

- Students will explore careers, use proper terminology. They will use the proper equipment and use math to help them solve problems.

Cellular Biology

- Students will know how to use the vocabulary - Organelles, Mitosis, Meiosis and Mutation.

Anatomy and Physiology

- Students will learn about the Skeletal, Muscular, Digestive, Respiratory and Nervous systems.

Reproduction

- Students will learn about the male and female reproductive system. They will learn about genetics and artificial selection.

Veterinary Procedures

- Students will learn about small animal first-aid and how to give a physical exam. They will learn about diseases and surgical skills.

Animal Behavior

- Students will learn about animal welfare and rights. They will learn about behavior and ethics towards animals.

Animal Production

- Students will learn about a variety of domestic animals and exotic animals.