A.C.S. Curriculum Guide

2025-2026

Table of Contents

ART

Course Title: AP 2D Art & Design, AP 3D Art & Design, AP Drawing

Subject Area: Visual Arts

Student Grade Level(s): 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: 2-3 art credits, Portfolio Evaluation, and Instructor Permission; fee

Overview:

The AP Studio in Art course includes three portfolio options: Drawing, 2D Design, and 3D Design. Each portfolio will contain two main sections: Sustained Investigation and Selected Works. **Sustained Investigation** requires students to submit images and writing to document inquiry-based investigation in practice, experimentation and revision. Fifteen (15) images and written responses to prompts will be submitted. **Selected Works** section requires a submission of works of art and design and writing to demonstrate skillful synthesis of materials, processes, and ideas. Five works and written or typed responses (materials, processes, ideas) will be included.

The portfolio (and digital “slide” photography) must be completed by early May for submission to the College Board for evaluation.

Due to the high quality and volume of work expected (about 1 artwork per 2 weeks); the AP Art program is for highly motivated students ONLY. AP work involves a significant time commitment on the part of the student. Students will need to also work outside of class and independently. A strong work ethic is needed to meet deadlines and complete assignments with quality.

Students must present a portfolio of 5-6 artworks in the spring to the AP instructor in order to be accepted to the program. If approved to participate, the student must pick up an informational packet before summer vacation. It will include assignments that must be completed prior to the fall semester.

Goals & Objectives:

- Students will choose and use a variety of media, tools, and techniques to solve design problems and express personal artistic vision through their own personal observation.
- Students will demonstrate safe and mature techniques for using media, including proper tool use, cleaning, and storage.
- Students will learn ways to present their work to the public, including portfolio development, digital slide preparation, canvas preparation, mounting, matting, and framing techniques.
- Develop mastery of art skills using the elements and principles of design, the rules of composition, and advanced techniques to enhance creativity.
- Students will create original artwork that expresses emotion and narrative that can be readily interpreted by the viewer of his or her work.
- Students will develop a series of college level artworks based on a theme or problem that the student finds compelling and worthy of long-term study.
- Use a variety of sources to learn about the field of traditional arts, including the careers in this field and post-secondary education in the arts.
- Students will research a variety of Web sites, books/articles, posters, videos, etc. to understand the historical and cultural concepts involved in the visual arts.
- Students will discover a variety of art styles and artists through research and art activities, including the work of past AP students.
- Students will participate in a variety of oral, written, and visual responses in order to strengthen skills to critique art of their own and of professional art. This will be based on rubrics to better understand process, technique, composition, etc.
- Students will utilize vocabulary relating to specific processes and techniques in art through group and individual lecture and guided research.
- Develop college level work ethic, including the ability to work independently, multi-task, and meet deadlines (including summer assignments.)
- Students will rework projects based on feedback from critiques and teacher suggestions in order to improve them for his/her portfolio.

Materials {Include title & Author of Text(s)}:

Text: Lauer, D. & Pentak, S. (2004). *Design Basics, 6th ed.* Belmont, CA: Wadsworth Publishing, and may include readings from a variety of sources, including books, Web pages, and Power Point displays.
Resource Folder: for think sheets, artwork info, photos, magazine pictures, objects, etc.

Past artworks from classes or on own.
Recommended: Pencil box or tackle box to store art media. Art Portfolio to store artwork.

Most supplies and storage (shelf and drawer) are provided, but students are responsible for care, upkeep, and bringing them to class daily. This includes art media, sketchbook, and portfolio. Media and tools must be returned; proper care will be graded.

Drawing Media: pencil, charcoal, marker, colored pencil, chalk pastel, oil pastel, crayon, pen and ink, brush and ink, etc.

Painting Media: watercolor, acrylic, oil, watercolor pencil

Printmaking: monoprint, linocut, screen printing

Digital Photography/ Computer Graphics: Adobe Photoshop, Adobe Illustrator, Animate, Canon Rebel camera, lighting equipment, filters, waterproof gear, tripods, etc.

Sculpture Materials: clay, plaster, wax, carving foam, wood, stone, glass, craft materials, papier-mâché, 3D printing, etc.

Time Allotment per unit:

Summer Assignments - Completed independently over the summer. Each assignment should take 10+ hours of work. In order to meet the volume of artworks expected for the AP portfolio, interested students are expected to create 3+ projects over the summer. These projects are critiqued as a group on the first Friday of the school year. Failure to complete the assignments may create a failing grade for the first marking period, and possible removal of student from the AP course. Summer assignments can be completed in a student's sketchbook, as an altered book assignment, or on a variety of surfaces. 2D Design students may complete photography or graphic design assignments. Each student should work in a variety of media, and show a variety of techniques and approaches to art. Students should try mixed media, collage, photography, computer graphics,

printmaking, inventing media and tools, etc. Students should follow this advice: Be experimental. Try doing something new and different with the media. Try not to be cute or trite. Challenge the whole meaning of art. Finish what you start, even if you do not like it. Work from observation. Work from your mind's eye. Be creative. Be versatile. Sustained Investigation. Two weeks apiece. Each should use a student's class time plus free time to complete. A rule of thumb in college is a student should spend twice the amount of class time on the project outside of class. This section of the portfolio enables students to reach a high degree of mastery through a variety of media, techniques, and modes of expression. Many project ideas and demonstrations are merely a starting point. Students are encouraged to decide where to take the ideas, since decision-making, creativity, and use of higher order thinking skills is expected. It is an inquiry-based investigation in practice, experimentation and revision. Fifteen (15) images and written responses to prompts will be submitted.
Students will select their 5 best artworks and written/types responses on materials, processes, and ideas to submit with the AP portfolio in late April. This is based on art and design and writing to demonstrate skillful synthesis of materials, processes, and ideas.

After the AP Portfolio - 1 Month: Since there is class time between the exam and the end of the year, each AP student will be responsible for a major project and art show display for the last 4 weeks of school. One expectation is that each AP student develops a full panel for the annual Art Show. The student is responsible for matting and/or mounting work and designing the layout of his or her presentation panel. This project is quite an honor, and students often enjoy the accolades that come with this project. The other assignment can be either a final masterwork, portfolio, or artwork to beautify the school. Students often complete this project as a team.

Methods of Study:

Students may development a sketchbook, which could include notes, experimentation with media, and compositional planning. Many times, the sketchbook can be used to create a finished artwork as well. Often, we create our sketchbook as an altered book assignment. I have found that this method increases the students' willingness to experiment with media when the fear of a blank white page does not exist.

Students often keep a resource file of items that can be used in later projects, such as photos, advertisements, interesting cards, textured or handmade papers, etc. Resource images and samples

are excellent tools to help plan artworks. They can help an artist draw items that they may not be able to see in their head and put onto paper. Resource items are also excellent for use in collage and altered book assignments. Plagiarism is an issue that is discussed in all art classes at our school, and it is explicitly re-stated during AP. There is a fine line between appropriation and plagiarism, and we discuss the difference between the two. It is expected that all student work is original, and that plagiarism will not be tolerated. Many AP students from other schools have lost their credit by plagiarizing artwork. Critiques are a regular part of the AP class. I will often meet informally with students while they create their work. We also complete formal critiques as a group several times per marking period as schedules allow. In addition, we complete formal and informal critiques of professional artwork. Sometimes this is verbal, and sometimes it is a written assignment that is included in a research project. Critiques are a way for students to become better artists. When a student learns to objectify his or her artwork, then he/she can grow. It is important for students to become quality assessors of their own and others work. In addition, critiques help to foster a community within the art room. Students learn to trust each other, and give constructive feedback. This helps each student meet the rigorous standards, since each develops a higher level of thinking with regards to art evaluation.

Research

Students are expected to complete research about artists, art movements, galleries, art methods, and colleges. This work will involve student and teacher interaction, the use of written texts, and technological resources. Often this is not in the form of a report, but in order to obtain ideas about composition and technique. Students are taught how to shoot successful photographs of their artwork, and are expected to shoot a digital image of each artwork. This includes past artworks from our initial portfolio review, summer works, and successful sketchbook assignments. These images are organized by category: breadth, concentration, and quality. These folders are organized on a network that is accessible to each student and to the teacher, so progress is easy to track. A student can see which categories need work, and can also replace less successful works as the portfolio grows. This is done through informed decision-making. In addition, students are taught proper matting techniques. In April, students narrow their selections for the Quality section through ongoing critiques. These artworks are sprayed with fixative (if needed), matted, and a cover sheet is affixed.

Assessment Plan:

- 75% = Major Projects (~5-7+ per M.P.) - Must be in on time to receive full-credit. Projects should be re-worked for a higher grade. Projects will be graded on craftsmanship/ material use/ technique, imagination/ inventiveness/ risk-taking, composition/ use of elements & principles of design, evidence of thinking, sensitivity/evocativeness, complex visual and conceptual ideas. **Plagiarism = 0%**.
- 25% = Class Participation / On Time & Prepared for Class / Clean Up / Critiques o Do you participate effectively in our art environment? Research? Planning?
- 5% = Extra Credit - Includes participation in the arts outside of class: volunteer work, contests, further research.
- Marking Period 1 Grade + Marking Period 2 Grade + Marking Period 3 Grade + Marking Period 4 Grade = 100% (grade for AP Studio in Art 1)

Course Title: Art Portfolio

Subject Area: Visual Arts

Student Grade Level(s): 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Enrollment Limit: 15

Prerequisites: 2-3 art credits, Instructor Permission

Overview:

Art Portfolio course offers students the opportunity to create a professional body of work that clearly demonstrates mastery of technical skills and increased conceptual thinking and reflects their personal interests. This course may include individual critiques and planned group activities for students to display their work publicly at the annual art show. This course is for the student who wishes to develop a portfolio for college, but does not feel ready for the rigorous pace of AP portfolio.

Goals & Objectives:

- Learn advanced artistic techniques, tools and processes.
- Effectively use artistic planning techniques, including sketches, maquettes, and work from personal reference. A focus on effective composition through use of the elements and principles of art will be stressed.
- Use a variety of sources to learn about the history and culture of art, including careers. This may include presentation, research, and student response (written, oral).
- Use oral or written critique and evaluation methods in order to better understand successful composition based on project rubrics.
- Develop a collection of works based on individual skills and interests.
- Cultivate display methods for groups of artworks and develop a comprehensive portfolio.
- Discuss advanced ideation, including narrative, experimentation, mixed media, problem-solving skills, and mark-making for meaning

Materials {Include title & Author of Text(s)}:

No assigned textbook, but may include readings from a variety of sources, including books, Web pages, and Power Point displays, articles, small-group demonstration, etc.

All supplies are provided, but students are responsible for care, upkeep, and bringing them to class daily. This may include art media, sketchbook, and portfolio. Media and tools must be returned; proper care will be graded. A shelf and drawer will be provided for storage, but students are to keep things neat and organized.

Materials may include Clay, Paper, Papier-mâché, Copper, Wire, Found Object, Plaster, Wax, Plasticene, Wood, Soapstone, Glass, Mosaic, Glaze, Underglaze, Acrylic Paint, Enamel Paint, Dye, Stain, Varnish, Polish, pencil, charcoal, marker, colored pencil, chalk pastel, oil pastel, crayon, pen and ink, brush and ink, watercolor, acrylic, oil, watercolor pencil, gouache, monoprint, linocut, screen printing, mixed media & collage

Time Allotment per unit:

Projects will vary and be based on individual interests and goals. Typical project completion is 2-3 weeks, depending on media.

Methods of Study:

This course will include hands-on use of media, lectures, class discussion and critique, individual research papers or power points, short drawing assignments, and small group instruction. Classroom discussion will be focused on historical trends in art, methods and techniques, and critique/ assessment of master and student samples using the elements and principles of design and composition as guidelines. Course may include research will be about historical and cultural examples of art. Drawing or journaling assignments are used to effectively plan major projects.

Assessment Plan:

- Major Projects (3 - 4 per M.P.)-80%: Must be in on time to receive full-credit. Projects can be re-worked for a higher grade, until the end of the marking period. Artwork will be graded on effort/time, use of media and techniques, design/composition, creativity/risk-taking, and emotion/clarity of message.
- Effort/Class Participation-20%: This includes use of class time, oral participation in class discussion and critiques, being prepared for class, cleanup of tools and area, planning for projects (sketches, research, brainstorming, etc.)
    - Extra Credit-5%: Participation in the arts outside of class: volunteer work, contests, additional research, etc.

Course Title: Creative Arts 1, 2, 3, 4

Subject Area: Visual Arts

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Prerequisites: None; Grade 9 – Teacher Recommendation

Enrollment Limit: 18

This course fulfills the Regents requirement for one credit of Art in High School.

Overview:

Creative Arts is a course where students can develop art skills based on their own interests and skills at their own pace. Students will learn basic techniques to use a variety of art media. This might include clay, wood, plaster, glass, wire, found objects, foam, wax, craft, pencil, charcoal, ink, pen, marker, printmaking, painting (watercolor, acrylic, oil), printmaking, collage, mixed media, etc. Each student will help determine the media he/she will use as a class, small group, or individually. Often multiple project choices will be offered concurrently. Beginners are welcome, since we can learn basic skills up to advanced techniques. This course can be taken multiple times, since project work changes from year to year.

- Creative Arts 1: This class is an introduction to art using thematic concepts in art, such as Nature, Important Places, Pattern, People in My Life, Symbolism, Fantasy in Art, etc. Students will learn basic concepts in a variety of media, and then make personal choices of material and methods to use to develop their ideas. Choices of media for each unit include drawing, painting, sculpture, printmaking, craft, mixed media, and sometimes-digital methods.
- Creative Arts 2: Emphasis will be on the relationship between discipline and expression in a variety of two- and three-dimensional media, including ink, colored pencil, pastels, watercolor, acrylics, oils, and printmaking. Some more advanced sculptural media may be used, such as wax, plaster, and wood. Students will create a variety of major projects to develop their art portfolio. In addition, learning will be reinforced through sketchbook assignments, research, and critique activities. Art research may include topics such as media, techniques, artists, art styles, art history, careers, museums, and cultures.
- Creative Arts 3: This course is a continuation of Creative Arts 1 & 2 with an emphasis on individual problem-solving skills and the development of a personal artistic style. Students will explore a variety of professional media and techniques to create a portfolio of high quality, original artworks. Media may start to become mixed in order to form more personal expressions, with a focus on more advanced materials and techniques. Grading is based on a combination of major projects, sketchbook assignments, research, and active class participation through oral and written critique.
- Creative Arts 4: Students will develop an individualized portfolio by solving a variety of art problems that are posed. Students will be encouraged to choose appropriate media and techniques that best suit their design needs, and often may incorporate mixed media into their solutions. Grading is based on a combination of major projects, sketchbook assignments,

research, and active class participation through oral and written critique. This course is highly recommended for students who wish to take AP Studio in 2D Design or AP in Drawing OR in place of AP Art, since the amount of completed projects are less than AP. As a part of this course, students will develop a portfolio of work that can be used for college admissions. Student will set up a personal display of his/her work at the annual art show.

Goals & Objectives:

- Learn a variety of artistic techniques, tools and processes, including art-related vocabulary, with a focus on effectiveness, safety, and purpose.
- Effectively use artistic planning techniques, including sketches, maquettes, and work from personal reference. A focus on effective composition through use of the elements and principles of art will be stressed.
- Use a variety of sources to learn about the history and culture of art, including careers. This may include presentation, research, and student response (written, oral).
- Use oral or written critique and evaluation methods in order to better understand successful composition based on project rubrics.

Materials {Include title & Author of Text(s)}:

No assigned textbook, but may include readings from a variety of sources, including books, Web pages, and Power Point displays, articles, small-group demonstration, etc.

All supplies are provided, but students are responsible for care, upkeep, and bringing them to class daily. This may include art media, sketchbook, and portfolio. Media and tools must be returned; proper care will be graded. A shelf and drawer will be provided for storage, but students are to keep things neat and organized.

Materials may include Clay, Paper, Papier-mâché, Copper, Wire, Found Object, Plaster, Wax, Plasticene, Wood, Soapstone, Glass, Mosaic, Glaze, Underglaze, Acrylic Paint, Enamel Paint, Dye, Stain, Varnish, Polish, pencil, charcoal, marker, colored pencil, chalk pastel, oil pastel, crayon, pen and ink, brush and ink, watercolor, acrylic, oil, watercolor pencil, gouache, monoprint, linocut, screen printing, mixed media & collage

Time Allotment per unit:

Projects will vary each year based on student interest, but this is a general overview. Each major project/ unit takes roughly 3-4 weeks, depending on complexity.

Portraiture

Figure in Art: Narrative, Genre

Animal Art

Still Life

Fantasy Art/ Surrealism

Symbolic Artwork

Landscape

Graphic Design

Abstraction/Expressionism

Nonobjective Art

Architecture/Interior Design

Cultural/Historical Themes

Word Art

Product Design/ Functional Art

Fashion

Belief Systems

Art Styles

Self-Expression

Observation

Creativity Methods

Large Scale Art/ Murals/
Group Projects

Installation

Contemporary Issues

Book Design

Methods of Study:

This course will include hands-on use of media, lectures, class discussion and critique, individual research papers or power points, short drawing assignments, and small group instruction. Classroom discussion will be focused on historical trends in art, methods and techniques, and critique/ assessment of master and student samples using the elements and principles of design and composition as guidelines. Course may include research will be about historical and cultural examples of art. Drawing or journaling assignments are used to effectively plan major projects.

Assessment Plan:

- Major Projects (3 - 4 per M.P.)-50%: Must be in on time to receive full-credit. Projects can be re-worked for a higher grade, until the end of the marking period. Artwork will be graded on effort/time, use of media and techniques, design/composition, creativity/risk-taking, and emotion/clarity of message.
- Effort/Class Participation-50%: This includes use of class time, oral participation in class discussion and critiques, being prepared for class, cleanup of tools and area, planning for projects (sketches, research, brainstorming, etc.)
- Extra Credit-5%: Participation in the arts outside of class: volunteer work, contests, additional research, etc.
- ***A Local Final Exam MAY be a part of this class, depending on the number of students that sign up for the course.**

Course Title: Digital Art 1, 2, 3, 4

Subject Area: Visual Arts

Student Grade Level(s): 10-12

Length of Course: 20 Weeks

Credit Assigned: 0.5

Prerequisites: None

Articulation with Erie Community College for AT260 Digital Art and Design (3 credits) – fee (Sem 2)

(To receive college credit, a minimum of 4 students must be registered with the college to take this class.)

Enrollment Limit: 15

Overview:

- Digital Art 1: Through this course, students will learn to use the computer to visually communicate their ideas and become better prepared to compete in our ever-changing age of technology. Students will sharpen their drawing skills, improve their methods of composition, and improve their creative thinking skills. We will learn to use a variety of equipment and software: computers, scanners, digital cameras, Adobe software (Photoshop, Illustrator, Flash, and Premiere, etc.), pen and tablet, etc. Concepts may include digital imaging, photo

manipulation, graphic design, basic animation, storage and file management, and copyright/ethical issues. Course projects are determined by student interest.

- Digital Art 2: Digital Art 2 is a course where students explore more advanced software. Advanced techniques in the second semester may include creative manual photography and Photoshop, Web page design, multimedia presentations, advanced animation, video game design, 3D character design, and video techniques. Course projects are determined by student interest.
- Digital Art 3: Digital Art 3 is a course where students are encouraged to create personally expressive original art using the methods learned in 1 and 2. Students will create individually designed projects with tutoring by instructor and through use of graphic design books and online tutorials. Students will develop more intricate artworks in a concentration area that was introduced in 1 and 2 to develop a comprehensive portfolio. This might include a photography portfolio, fully functioning Web page, video game, graphic animation with sound, or graphic design product and packaging.
- Digital Art 4: Digital Art 4 allows students to develop a personal concentration in one or more media from DA3. This class is recommended for students before taking AP Studio in 2D Design, or in place of it in order to achieve a sequence in the arts. As a part of this course, students will develop a portfolio of work that can be used for college admissions or AP.

Goals & Objectives:

- To study the elements of art and principles of composition through various digital media projects and effectively use artistic planning techniques to apply skills learned in Studio in Art to create more sophisticated artworks.
- To learn how to use a variety of art media, technology, tools, techniques, and idea gathering strategies to present their work to the public, including print, mounting/matting techniques, and digital methods of display.
- To understand how to read, write and talk about digital media using a formal critique ➢ Understand copyright laws, computer ethics, and technical language.
- Demonstrate basic camera and hardware care and responsibility, including digital citizenship.
- Learn about history of digital media and careers in the field

Materials:

- No assigned textbook, but may include readings from a variety of sources, including books, Web pages, notes, articles, video tutorials, and Power Point displays.
- Hardware: Multimedia Workstation, Wacom/Huion Pen Tablet, Scanner, Canon Rebel Digital Camera, 3D Printer, Cricut, Glowforge
- Software: Adobe Creative Suite, including: Adobe Photoshop, Adobe Illustrator, Animate, Adobe Premiere, Adobe InDesign, Tinkercad, Meshmixer, zBrush, SketchUp, Google Tools, etc.
- Art Supplies Include: Lighting equipment, Photograph Paper, Adhesive, Rulers, Mat Cutter, Mat board, Mixed Media
- Storage: Network Server, DVD, flash drives, Google Drive

Time Allotment per unit: Projects may vary, but this is a general overview for sections 1&2. (Content & sequencing will be based on class interest.)

Unit Name	**Number of weeks per unit**
Graphic Design Projects Using Adobe Illustrator	5 Weeks
Adobe Photoshop Image Manipulation and Advanced Camera Use	8 Weeks
Vector and Raster Image Combinations for Design	2 Weeks
Printing and Display Methods	2 Week
Animation/ Gif Animation/Web Button Rollovers	2 Week
Web Page Design	4 Weeks
Flash Animation	4 Weeks
Video Game Design/ Coding	4 Weeks
Video/ Film	4 Week
Independent Final Project	3 Weeks

Methods of Study:

Methods of study include project work, portfolio development, teacher instruction, tutorial work, individual and group critique, written and oral critique, small group interaction, and research

papers/power points. A majority of the work will be student driven project work based on problems posed in class based on historical graphic design as well as usage of techniques learned in class. Students will develop a portfolio of work in digital and print form. Teacher instruction will often be tutorial work, which includes watch and follow methods to inspire visual and kinesthetic learners. Critique may be written or oral, individual, small group, or class.

Assessment Plan:

- Class Participation & Effort-50%: This grade depends on your active class participation, your constructive use of the entire class period, your concentration/effort, and your clean up and care of tools, space, and artwork. If course numbers dictate, we may have quizzes that are linked to our final assessment as part of APPR. Quizzes will equal 10% of effort grade.
- Major Projects-50%: Approximately 3 – 10 major artworks will be assigned each marking period. Rubrics will be explained at the beginning of every new project. You project must be complete and turned in on time to receive full credit. Projects can be reworked for a higher grade.
- Extra Credit-5%:
    - Students can earn extra credit through participation in the arts outside of class:
    - Including, but not limited to: volunteer work, contests, assisting with maintenance of art tools, etc. Please see me if you are interested.

(MP1=50%) + (MP2=50%) = 100%

***A Local Final Exam MAY be a part of this class, depending on the number of students that sign up for the course.**

(MP1=40%) + (MP2=40%) + (Final Exam=20%) = 100%

Course Title: Drawing 1 (Sem 1), Painting 1 (Sem 2)

Subject Area: Visual Arts

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Prerequisites:

Teacher Recommendation, prior HS art course highly recommended
Articulation with ECC (fee, 3 transferable college credits) (To receive college credit, a minimum of 4 students must be registered with the college to take this class.); Drawing (AT 200), Painting (AT210).
Enrollment Limit: 10
This course fulfills an art elective requirement for 1/2 credit of Art in High School.

Overview:

Drawing 1 - This course is paired with Drawing 1 from ECC. The class is an introduction to drawing media and techniques with an emphasis on drawing from observation. The use of the elements and principles of art (such as line, form, color, texture, contrast, balance, motion, rhythm, etc.) will be explored in a variety of basic media including charcoal, pencil, micron pens, colored pencil, pastels, and mixed media.
Painting 1 - This course is paired with Painting 1 from ECC. The objective is to learn accurate color mixing and painting from observation. Media includes primarily oil paints, with an emphasis on color shading, layering, and blending. Grading is based on a combination of major projects, sketchbook assignments, research, and active class participation through oral and written critique.

Goals & Objectives:

Learn a variety of drawing & painting media, tools, and techniques. This includes proper tool use, safety, cleaning and storage.
Present work to the public, including mounting, matting and framing techniques.
Students will demonstrate knowledge of successful design techniques using the elements and principles of design in their plans and final products.
Use a variety of sources to learn about the field of traditional arts, cultural art, art institutions, artists, and careers in this field.
Students will create a variety of written and visual responses to research ideas in the field of drawing and painting.
Critique and evaluate artwork in order to better understand successful composition.

Students will learn vocabulary relating to specific processes and techniques in art through group and individual lecture and guided research.

Materials:

No assigned textbook, but may include readings from a variety of sources, including books, Web pages, and Power Point displays.

All supplies are provided, but students are responsible for care, upkeep, and bringing them to class daily. This includes art media, sketchbook, and portfolio. Media and tools must be returned; proper care will be graded. A drawer and shelf will be provided; students are to keep things neat and organized.

Drawing Media: pencil, charcoal, marker, colored pencil, chalk pastel, oil pastel, crayon, pen and ink, brush and ink, scratchboard, etc.

Painting Media: acrylic, oil (traditional and water-based), brushes, and canvases.

Course Content:

- Drawing 1- Projects may include:
    - Each Unit is roughly 1-3 weeks long based on difficulty and students' progress.
    - Sketchbook Development (ongoing) o Pre-Instruction drawing – self-portrait, observed object, building o Drawing Basics (Drawing on the Right Side of the Brain)- blind contour, sighted contour, viewfinder (foreshortening), upside-down drawing, sighting (hands, portrait, still life object) (2 weeks- often completed in Studio in Art by most art students)
    - Still Life using line-modified line pressure, line quality, cross-contour/topography. o Figure in Art: Posed and Action - Proportion drawing, gesture drawing (line of action, main masses, positive/negative shapes, sighting, form through cross-contour, pentimento), figures in background
    - Figure/ Ground Relationship (Positive/ Negative Space) – Plant with background, group of chairs, mini still life
    - Linear Perspective: 1 & 2 pt. perspective, horizon, orthogonal, cone of vision, boxes using 1 pt. perspective, invented room using 1 pt. perspective, room of choice using 1 pt. perspective from observation or photo, invented architecture using 2 pt. perspective, architecture from photo using 2-point perspective (using grid, finding v.p., determining horizon line) (4 weeks)
    - Shading and form- basic forms, lighting objects, shadow shapes, highlight, crest shadow, reflected light, and cast shadow, additive and subtractive drawing techniques- mini still life with egg shells, popcorn, or some similar organic object.

- Value shading of still life of boxes and vases using Chiaroscuro. Compositional placement and successful use of space.
- Charcoal drawing of fabric and drapery placed in still life. Using form as structure: tubes, cones, boxes based on objects and fabric hanging. Hard vs. soft edges.
- Self-portraiture using toned paper for middle tone, white charcoal for highlights.
    - Proportion, anatomy, expression, lighting style. Animal portrait- introducing color- color theories and blending colors, mixing tints and shades. Chalk pastel to develop form and texture.
- Mixed media- landscape. Watercolor techniques: flat wash, graded wash, drybrush, and glazing. Develop underpainting (actual color vs complementary color underpainting) for masses in a landscape. Colored pastel pencils used to add detail and develop further texture.
- Displaying work- annual art show and contests. Matting/ mounting work. Critique skills. Artist statements.

- Painting 1 - Color theory and mixing accurate colors- pigment/ hue, value, and Intensity/saturation, transparency/opacity, and temperature, color contrast & attributes
    - Creating a painting from observation based on accurate color mixing. Floral design recommended.
    - Painting styles/ History Research- Impressionism, Post-Impressionism, Expressionism, Abstract Expressionism, Modernism
    - Painting based on masterpiece - matching technique and color blending, techniques: washes, gradients, glazing, drybrush, alla prima, scumbling, blending, etc.

Methods of Study:

- Methods of study include project work, portfolio development, teacher instruction, tutorial work, individual and group critique, written and oral critique, small group interaction, and research papers/power points. A majority of the work will be student driven project work based on problems posed in class based on historical and cultural themes as well as usage of techniques learned in class. Students will develop a portfolio of work. Teacher instruction will often be tutorial work, which includes watch and follow methods to inspire visual and kinesthetic learners. Critique may be written or oral, individual, small group, or class. Occasionally, research projects will be included to further student understanding of current art concepts.

Assessment Plan

- Major Projects-50% (3 - 4 per M.P.): Must be in on time to receive full-credit. Projects can be re-worked for a higher grade, but points off for late work will still apply. Artwork will be graded on effort/time, use of media and techniques, design/composition, creativity/risk-taking, and emotion/clarity of message.

- Class Participation & Effort/ Sketchbook-50%: This includes effective use of class time, participation in drawing and critiques, cleanup, technique-building exercises in sketchbook, etc.
- Extra Credit-5%: Participation in the arts outside of class: volunteer work, contests, additional research, etc.
- Marking Period 1 Grade (50%) + Marking Period 2 Grade (50%) = 100%
  Marking Period 3 Grade (50%) + Marking Period 4 Grad (50%) = 100%

Course Title: (Digital) Photography 1, 2, 3, 4

Subject Area: Visual Arts

Student Grade Level(s): 10 - 12

Length of Course: 20 Weeks

Credit Assigned: 0.5

Enrollment Limit: 15

This course fulfills ½ credit for the Technology requirement at Akron High School

Prerequisites: None

Overview:

- Photography 1 is an exciting and contemporary course based on learning and using a digital SLR camera, learning manual exposure settings, basics of photographic composition, lighting techniques, and editing images with a computer. Students will develop a series of projects for print, digital, and presentation.
- Photography 2 continues concepts learned in the first semester. Students will learn how to use the basic concepts in a more personal, creative way to express ideas and concepts versus sheer technique. There is a focus on experimentation, voice, meaning, and craftsmanship. Advanced camera techniques help students create their digital portfolio. Basic introduction and incorporation of video skills on the computer will assist students in creating exciting presentations using visual and sound equipment. At the end of the course, students will have an interactive digital media portfolio.

- Photography 3 & 4 allow students to develop their own portfolio based on topics and techniques they choose. The goal is to develop a portfolio of work based on their own interests and skills. Emphasis is focused on creating a concentration of works. This is a great preparation for students interested in doing AP their senior year, or for the highly motivated student who enjoys freedom of developing their own projects and pace.

Goals & Objectives:

- To study the elements of art and principles of design through digital photography projects.
- To learn effective planning, idea gathering, and composition methods.
- To use a variety of art media, technology, tools, and techniques.
- To gain a variety of skills to present their work to the public, including print and mounting/matting techniques.
- To understand how to read, write and talk about digital photography using a critique, vocabulary, and rubrics.
- To understand copyright laws, fair use rules, technical and computer ethics, and digital citizenship.
- To demonstrate basic camera care and responsibility, history of photography and careers in the field of photography.

Materials {Include title & Author of Text(s)}:

- No assigned textbook, but may include readings from a variety of sources, including books, Web pages, and tutorials.
- Hardware: Multimedia Workstation, Wacom/Huion Pen Tablet, Scanners, Printer, and Canon Rebel digital SLR cameras (3, 3i, 6, 6i)
- Software: Adobe Creative Suite, including Adobe Photoshop, Lightroom, Adobe Illustrator, Adobe Premiere, Microsoft Power Point, etc.
- Art Supplies Include: Photograph Paper, Mat board and X-Acto knives, variety of digital print paper, hand coloring equipment, mixed media for transfer methods, Glowforge, Cricut
- Storage: Network Server, DVD, flash drives, Google Drive

Time Allotment per unit: (Projects vary, but this is a general overview)

- Photography 1:
  - Basic camera parts and handling: power, auto modes, focus (auto and manual), menu, continuous burst, self-timer, flash, resolution, tripod. Safety, stance, and camera care.
  - Photo scavenger hunt using basic settings.
  - File management: deleting, labeling, folders, saving work, file formats. Basic Photoshop correction: exposure, histogram, levels, curves, and color correction.
  - Portraiture and lighting: 4-point lighting system (key, fill, back, and background). Well-lit exposure vs high-key, low-key, and Chiaroscuro lighting. Lighting and backdrop set-up and safety. (Annie Liebovitz)
  - Adjusting ISO for lighting situations. When to use low vs high settings.
  - Black and white effects- using non-destructive methods in Photoshop to create stunning contrast.
  - Photoshop Special Effects- spooky movie poster: green screen, selective color, color adjustment using clipping mask, vignettes, distress brushes, texture layers, color replacement, color filters.
  - Still life photography and lighting. We have created alphabets and words from objects, food still life's, floral art, etc. Results are organized into a sequence, recipe page, or collage.
  - Surreal photo montage, transformation, scale shift, etc. - blend a variety of unrelated images into one image. Create unity through masking (hard edge vs soft edge, partial masking with gray), color correction and clipping masks. (Uelsmann, Man Ray)
  - Macro photography of toys to achieve shallow and wide depth of field. Understanding aperture and f-stop. Creating bokeh. Photoshop-created shallow depth of field and tilt shift effect. Composition: rule of thirds. (Slinkachu)
  - The exposure triangle: ISO, shutter speed, and aperture. Simulation showing how each is interconnected. Animal and/or child photography, and when to adjust each of the three settings. (outdoor vs indoor, posed, sleeping, and moving, depth of field) (William Wegman, Anne Geddes)
  - Silhouette and back lighting. Creating light diffusers with household objects. Opacity vs transparency. Creating a Photoshop silhouette in a new background from a non-

shadowed object using masking, lock transparency, gradient tools, and vignettes. Use of spot metering and manual focus. (Henri Cartier Bresson)

- Understanding long shutter speed and TV setting. Long exposures and light painting: words, drawing, “flashing” or “painting” objects, color effects, and mixing techniques. Use of tripod and shutter release cable, and manual focus. Composition: movement and rhythm.
- Artist research and emulation project. Based on list of photographers. Printing and mounting artwork.
- Basic critique techniques to discuss historical art, as well as student art.

- Photography 2:
  - Managing files. Adobe Bridge and Metadata. Contact sheets.
  - Capturing motion- fast shutter speed (splash photography, sports photography, water drop photography) vs slow shutter speed (motion blur, spooky selfies, light painting, etc.)
  - Multiples of Me – using multiple photos taken in a sequence using a tripod. Photos are stacked on layers, and masking techniques are used to reveal the figure from each.
  - Snow photography and use of exposure compensation. Cold weather and camera care.
  - White balance settings.
  - Night photography, exposure compensation, and long shutter speeds.
  - Narrative photography- telling a story with a sequence of photos. Create a well-balanced collage using templates, rulers, and guidelines.
  - Bracketing of exposure to achieve High Dynamic Range. The Zone system and Ansel Adams. Landscape and Nature Photography. Use of Photoshop to layer multiple exposures, Photomatix, or RAW and Lightroom.
  - Cinemagraphs, sequence of movements, gif animation, and other movement-based photography series.
  - Combining photography with drawing or painting. This may be a graphic design paired onto the photo on a layer in Photoshop, may be image transfer onto a traditional media support for further manipulation, or involve combining drawn or painted objects that are scanned in and manipulated with the photo.
  - Photo restoration…or degradation. Using Photoshop to age photos, or restore and improve them.
  - Macro using depth of field and bokeh from natural light. Aperture and manual focus.

- Color saturation and desaturation.
- Develop a series of photos based on a theme of choice.
- Contemporary Photography and Careers in Photography- research and emulation (create a product inspired by your research)
- Printing and matting artwork for display. Artist statements.
- Creating a digital portfolio – online software and/or Adobe Premiere

- Photography 3 & 4.
  - Students help develop projects, decide new skills to learn o Portfolio development, printing, display, and marketing.

Methods of Study:

- Methods of study include project work, portfolio development, teacher instruction, tutorial work, individual and group critique, written and oral critique, small group interaction, and research papers/power points. A majority of the work will be student-driven project work based on problems posed in class based on historical photography as well as usage of techniques learned in class. Students will develop a portfolio of work in digital and print form. Teacher instruction will often be tutorial work, which includes watch and follow methods to inspire visual and kinesthetic learners.
- Worksheets, teacher-created how-to videos, web links, and articles may supplement teaching. Critique may be written or oral, individual, small group, or class. Occasionally, research projects will be included to further student understanding of current digital photography concepts.

Assessment Plan:

- Grading Procedure
- Major Projects-50% (approximately 6-10 per marking period): Must be turned in on time to receive full credit. Projects can be re-worked for a higher grade, but must be turned in by the end of the marking period.
- Class Participation, Critiques, Being Prepared, & Effort-50% o Participation = constructive class participation, use of entire class period for work, concentration on art, care of tools and art space, proper storage of work, critique participation, team work, etc.
- Prepared = in class on time, notebook, portfolio, assignments, etc.

- Quizzes- may include quizzes if APPR directs me to do so
- Extra Credit-5%: Can be earned through participation in the arts outside of class: including but not limited to volunteer work, contests, etc.
- Marking Period 1 Grade (50%) + Marking Period 2 Grade (50%) = 100%
- (If quizzes and final: MP1= 40%, MP2=40%, final=20%)
- Marking Period 3 Grade + Marking Period 4 Grade = 100%

Course Title: Studio in Art

- Subject Area: Visual Arts
- Student Grade Level(s): 9 - 12
- Length of Course: 40 weeks
- Credit Assigned: 1.0 credit
- **Prerequisites:** None
- Enrollment Limit: 20
- This course fulfills the Regents requirement for one credit of Art in High School.

Overview:

- Studio in Art is a one-year foundation course for students in grades 9 through 12. The course is for students who hope to gain an understanding of many media and concepts in art. This course fulfills the Regents requirement for one credit of Art in High School. Studio in Art is a prerequisite to several art electives, and is normally taken in 9th or 10th grade. Students taking a sequence in Art begin with this course.
- Units and lessons will encompass many aspects of art to include a hands-on use of many media and art methods using the New York State Standards of Art. The curriculum includes the elements of art, the principles of design, art history, art criticism, aesthetics, and an understanding of many art resources including technology. Project work might include drawings in different art materials, painting, sculpture, ceramics, photography, computer graphics, printmaking, and mixed media. At the end of the course, students will have a portfolio of work.

Goals & Objectives:

- To gain credit for the NYS art requirement and complete the first class in the art sequence
- To study the elements of art and principles of design through various art projects.
- To explore the major areas of art, art history, art appreciation and cultural art.
- Students will view a variety of historical and cultural concepts related to art.
- Students will learn about a variety of careers that are associated with the field of art.
- To learn how to use a variety of art media, tools, techniques, and idea gathering strategies to create high-quality artworks.
- Students will learn and demonstrate safe techniques for using, cleaning, and storing tools and media.
- To understand how to read, write and talk about professional and student art using a formal critique and art vocabulary.

Materials {Include title & Author of Text(s)}:

- No assigned textbook, but may include readings from a variety of sources, including books, Web pages, and tutorials, posters.
- Art materials may include, but are not limited to paint (watercolor, acrylic, oil), clay, wire, various papers (watercolor, construction, drawing, etc.), Prisma colored pencils, drawing pencils, charcoal, papier-mâché, ink (printing and drawing), glue, glaze and markers.
- Art tools may include, but are not limited to, paint brushes, scissors, brayers, linoleum cutting tools, Xacto knives, clay sculpting tools, blending media, pliers and wire cutters. Students will provide a 2-pocket notebook and #2 pencil only.

Time Allotment per unit:

- Please note: some techniques and media will overlap (art history concepts are often a component of each project, drawing activities precede each project and critiques follow each project).
- (Projects may vary, but this is a general overview. I try to plan the course based on the interests of the students each year.)

- Drawing (7 weeks) o Drawing on the Right Side of the Brain o Figure Drawing o Portraiture o Shading techniques
- Painting (7 weeks) o Color Theory o Watercolor Techniques o Acrylic Paint Techniques

- Sculpture (8 weeks) o Wire o Papier-mâché o Ceramics
- Printmaking (2 weeks)
- Mixed media (3 weeks) o Collage o Digital + Traditional methods
- Digital Media (3 weeks) o Computer Graphics o Animation o Digital Photography o 3D Design
- Art Careers (2 weeks)
- Aesthetics, Research, and Criticism (2 weeks) o Written Reflections o Group Critiques o Art History and Culture
- Art History (2 weeks) o Contemporary Issues in Art o Cultural Art o Western traditions
- Art Show/ Display (1 week)
- Independent Final Project (2 weeks)

Methods of Study:

- This course will include hands-on use of artistic media, teacher overview lectures, class discussion and critique, individual research projects, short warm–up assignments to reinforce concepts and terminology, and small group instruction. Classroom discussion will be focused on contemporary and historical trends in art, methods and techniques, and critique/assessment of master and student samples using the elements and principles of design and composition as guidelines. Students will learn to use preliminary sketches to plan for major projects. Research will be about historical and cultural examples of art.

Assessment Plan:

Grading Procedure

- Effort and Class Participation-50% -This grade depends on active class participation, constructive use of the entire class period, concentration/effort, and clean-up and care of tools, space, and artwork.
- Critiques & Preparedness - Homework & Sketchbook Assignments- You may have weekly activities designed to reinforce concepts and promote creative thinking. Assignments may include written tasks, research and brainstorming ideas for upcoming projects, finding information or imagery, experimentation with media or techniques, or reflection on a classroom activity.
- Quizzes and Exams as needed

- Major Projects-50%: Approximately 3 – 5 major artworks will be assigned each marking period. Your project must be complete and turned in on time to receive full credit. Projects can be re-worked for a higher grade, but must be turned in by the end of the marking period. *Please note: I will not accept any artwork that consists of inappropriate imagery!
- Extra Credit o Students can earn extra credit through participation in the arts outside of class, including, but not limited to: volunteer work, contests, assisting with maintenance of art tools, etc. Please see me if you are interested.
- ***A Local Final Exam MAY be a part of this class, depending on the number of students that sign up for the course.**

Course Title: Yearbook 1, 2, 3, 4, 5, 6, 7, 8

Subject Area: Visual Arts

Student Grade Level(s): 10 - 12

Length of Course: 20 Weeks **(full year preferred)**

Credit Assigned: 0.5

Prerequisite: Yearbook 1: **9th grade students need teacher recommendation**

Yearbook 2: Yearbook 1 OR Teacher Recommendation

Yearbook 3, 4, 5, 6: Teacher Recommendation, Prior Successful Yearbook class

***Course can be rigorous. Involves work outside of class, multi-tasking, deadlines, teamwork, and good attendance.**

Enrollment Limit: 15

Overview:

- This course offers students an introduction to the basic elements of visual communication and the print world. Students will learn the fundamentals of photography as they document important events from the school year. Students will develop their pre-collegiate communication skills via reporting, writing, class discussions, presentations, and publications. We will create the yearbook and a variety of narrative projects that show how photography and the written word combine to inform society.

- Yearbook 1/2 - Students will learn basic skills to create our printed yearbook. This includes the basics of photography, camera usage, and compositional skills. We will also focus on layout and page design. Writing assignments will include interviewing techniques, caption writing, and printed story methods, including polls, surveys, feature stories, and headline construction. In addition, we will focus on ethics in journalism, including libel, copyright, and proper use of trademarked materials. A special emphasis will be on staying organized, teamwork, critiquing, editing, and meeting authentic deadlines. Assignments will be within the school and extend into the community.
- Yearbook 3/4 - This is for students that hope to take a greater leadership role on the yearbook (editor or editor-in-chief). Editors will take a larger role in theme selection, page layout and creation, decision-making, and developing teamwork amongst their fellow students. In addition, students will develop more effective camera skills, advanced writing and editing techniques, and take a greater role in sales decisions and marketing.

Goals & Objectives:

- To research magazines, newspapers, and yearbooks as a guideline for creating a publication.
- To learn about censorship, copyright, libel, trademark, and fair use.
- To complete writing exercises including feature stories, opinion articles, polls / reviews, sports stories, etc.
- To develop strong research and note taking skills as they learn to become reporters.
- To strengthen their computer skills as they use various programs to create publication.
- To research the historic role of graphic design and photography in publication.
- To work together to design a theme for the yearbook.
- To design a cover and page layouts to visually support the theme.
- To learn about color theory and typography and understand the importance of both in marketing & mass communication.
- To learn to become a photojournalist. Students will learn the finer points of photography and writing as they capture captivating and narrative photos rather than mere candid photos.
- To take on various professional-type roles in production.
- To produce a 144-page yearbook in full color by the end of March.
- May learn about advertising, business strategies in marketing, budgeting, fundraising, and selling the yearbook.
- To identify the use of different literary elements and their overall effect on the story.

- To meet deadlines, learn how to multitask and prioritize, and produce a finished, edited product quickly.

Time allotments per projects:

- Cover and template designs due by November.
- Approximately 2 interviews or writing assignments per marking period, involving work outside of class.
- Monthly photography assignments, including attending sporting events & other important school activities outside of class.
- Four major deadline submissions for the yearbook- all before the end of March

Methods of Study:

- This course will follow aspects of the Jostens, Lifetouch, Herff Jones and Walworth yearbook curricula for the yearbook production. Students will have required reading and response, writing, teacher lectures, class discussions, student individual and group presentations, class critiques.
- Student's daily understanding will be assessed by discussions. Written and photographic assignments will be given weekly. Students will be required to multitask. Strict deadlines need to be met in order to produce professional quality publications. **This course is very difficult for students that have poor attendance or students that do not attend outside school events.**

Assessment:

- Class Participation, Critiques, Being Prepared, & Effort-50% o This grade depends on your active class participation, your constructive use of the entire class period, your concentration/effort, and your clean-up and care of tools, space, and artwork. If course numbers dictate, we may have quizzes that are linked to our final assessment as part of APPR. Quizzes will equal no more than 10% of effort grade.
- Major Projects-50%: Approximately 4 – 5 major projects (photography, design, written) will be assigned each marking period. Rubrics will be given at the beginning of every new project. You project must be complete and turned in on time to receive full credit. Projects can be reworked for a higher grade.

- Extra Credit-5%: Students can earn extra credit through participation in the arts outside of class: including, but not limited to: volunteer work, contests, assisting with maintenance of art tools, etc. Please see me if you are interested.
- (MP1=25%)+ (MP2=25%)+ (MP3=25%)+ (MP4=25%)= 100%
- *A Written Local Final Exam MAY be a part of this class, depending on the number of students that sign up for the course.
- (MP1=20%)+ (MP2=20%)+ (MP3=20%)+ (MP4=20%)+(Final Exam=20%)= 100%

BUSINESS

Course Title: Business/Computer Applications for the Workplace

(Currently not offered)

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit*

Overview:

Being proficient in workplace technology is an excellent way to increase the impact of your resume and gain a competitive edge when looking for work. The goal of this class is to provide students the opportunity to become proficient in the Microsoft Office and Google Suites including Word Processing, Spreadsheets, and Presentation software.

*This course may be taken for transferable SUNY Erie (ECC) college credit for students in 11th and 12th grade. Students would earn 3 credits that will transfer to a university of their choice as an elective course.

Course Title: Business Law *(Currently not offered)*

Subject Area: Business

Student Grade Level(s): 9-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Overview:

This course introduces students to the foundations of law in everyday life – contracts, loans, liability, etc. In addition, it will examine the ethical reality of past and current issues – for example, the balance between profits and fair wages, and fracking versus the environment.

Course Title: Career Exploration Class

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Overview:

The Career Exploration class provides students an opportunity to explore careers of interest while building a career portfolio. Students will explore their interests and lifestyle goals, and then match those interests and goals with potential careers. Students will create a career plan and build a career portfolio around that career which will include a resume, cover letter, and list of references. Students will practice interview techniques and explore workplace laws including safety, harassment, and restrictions for minors. This class is well suited for 11th graders since it prepares them for decisions that need to be made during their senior year. Students that are interested in staying for the second half of the year will have the opportunity to complete an internship in a career of interest to learn more about the career field and earn another .5 or 1 credit (see Work Experience).

Course Title: Intro to Accounting

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit*

Overview:

Accounting is an essential aspect of every business institution and organization. As future workers, small business owners, and entrepreneurs, students who understand basic accounting principles will more knowledgeably manage their companies' financial resources. As citizens, future parents, and investors, these students will be better prepared to make the economic decisions that will affect their communities. This is a must for anyone considering continuing education in business. *This course may be taken for transferable college credit for students in 11th and 12th grade (to receive college credit, a minimum of 4 students must be registered with the college to take this class). Students would earn 3 credits that will transfer to a university of their choice as an elective course.

Course Title: Introduction to Business I

Subject Area: Business

Student Grade Level(s): 9-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Overview:

This class is designed to teach students business skills through hands-on experiential learning. You will become involved with all aspects of business operation including customer service, management, purchasing, inventory control, sales, cash handling, and marketing. As a result of this training, students will be able to make an easier transition into the world of work. There are two parts to this class: The classroom and the store (laboratory). In the classroom, you will be given the information to manage and market products in a retail store. The School Store, in partnership with Market on Main is

where you will be applying the knowledge and skills learned in the classroom. Students enrolled are required to work a minimum of 10 hours at the Tigers Den School Store. Some evening and weekends are available for those who cannot participate in 9th period school stores. Hours can also be completed at Market on Main. As a culminating task, students will develop a new product including creating a prototype/design, choosing a supplier, completing a cost analysis to determine profitability and complete primary market research. Students will then pitch their new product ideas to the owners and managers at Market on Main.

Course Title: Introduction to Business II

Subject Area: Business

Student Grade Level(s): 9-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Pre-requisite: Intro to Business I

Overview:

Like Introduction to Business I, students in this class will operate, manage, and market the Tigers Den School Store. Students enrolled are required to work a minimum of 10 hours at the Tigers Den School Store. Some evening and weekends are available for those who cannot participate in 9th period school stores. Hours can also be completed at Market on Main on a case-by-case basis. In addition, students will be learning the process of researching and writing a business plan. As a culminating task for the class, students will present a business pitch to local business leaders. Students will not only learn the steps needed for someone to open and operate their own business but they will learn and practice oral presentation skills.

Course Title: Personal Finance I

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit*

Overview:

This course is designed to give students the essential elements to plan and live a healthy financial future regardless of their post high school plans. Topics covered are income and payroll taxes, paychecks/stubs, checking accounts, savings account options, types of credit, managing credit, retirement, insurance basics and budgeting.

*This course may be taken for transferable **SUNY Erie (ECC)** college credit for students in 11th and 12th grade (to receive college credit, a minimum of 4 students must be registered with the college to take this class). Students would earn 3 credits that will transfer to a university of their choice as a general education, social science course.

Course Title: Personal Finance II

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Prerequisites: None

Overview:

What is investing all about? This course focuses on learning about the different types of investment tools available, the process involved with investing, and strategies used to analyze investments. Also discussed are retirement/investment plans such as 401K, 403B, Roth and traditional IRAs and 529 plans. Risk management is discussed through the use of diversification and insurance. Students will compete in the Stock Market Game Simulation throughout the semester.

Course Title: Work Experience

Subject Area: Business

Student Grade Level(s): 10-12

Length of Course: 20 or 40-week options available

Credit Assigned: 0.5 or 1.0 credit options available

Prerequisites: Career Exploration Class

Overview:

Work Experience is a career exploration and development program that connects learning in school to the application of that learning in the workplace. Students are given the opportunity to connect through Google Meets with professionals in their career field of interest, participate in job shadowing experiences, and/or complete an internship with a career field of interest where the emphasis is on learning rather than productivity. The student applies career skills learned in the Career Exploration class and must complete that course prior to the work experience beginning. There are several different work experience programs available for students.

ENGLISH

Four genres of classes are currently offered in English, grades 9-12. These are as follows:

- Regents
- Honors: grades 9, 10, and 11 only
- Inclusion (see Regent's curricula)
- Advanced Placement in English Literature and Composition: grade 12 only

ALL students must pass the Common Core Regents English Language Arts Examination at/by the end of Grade 11; this is a graduation requirement.
Please note: Due to the demands of the Regents Examination and increased literacy demands across the curricula, there is provision for students to earn English credit upon failure through attendance at and successful completion of summer school.

This overview is for English courses 9-12 <u>EXCEPT</u> AP Literature.

The Common Core asks students to read various genres of literature. Students will be challenged and asked questions that push them to refer back to what they have read. Emphasized skills include critical-thinking skills and the ability to closely and attentively read texts in a way that will assist understanding and enjoyment of complex works of literature. Students will

learn to use cogent reasoning, critical thinking, problem-solving, analytical skills, and evidence collection skills that are essential for success in college, career, and life. The product of such abilities includes control and competency when composing written arguments. Said overview and further explication of the Common Core initiative may be accessed at NYS Common Core Learning Standards and Engage NY.

Course Title: English 9

Subject Area: English

Student Grade Level(s): 9

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites:

English 9 candidates must successfully complete grade 8 English.

Goals and Objectives:

English 9 students shall sit for the NYS Common Core Exam during their junior year.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works may be drawn from but not limited to *Speak* by Laurie Halse Anderson, *Romeo and Juliet* by William Shakespeare, et cetera.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; et cetera.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Notebooks
- Midterm Exam, modeled after the Common Core Exam
- Final Exam, modeled after the Common Core Exam

Course Title: English 9 Honors

Subject Area: English

Student Grade Level(s): 9

Length of Course: 40 weeks

Credit Assigned: 1.0

Prerequisites:

Honors candidates must consistently exhibit character traits that include but are not limited to impeccable academic integrity, a dependable work ethic that strives to exceed minimum standards, willingness to seek and accept constructive criticism, frequent and meaningful class participation, active presentation, and authentic enthusiasm for personal growth; successfully complete grade 8 English; and receive a teacher recommendation from their previous instructor.

Overview:

English 9 Honors also begins preparation for Advanced Placement Literature and Composition, optionally taken during senior year.

Goals and Objectives:

English 9 students shall sit for the NYS Common Core Exam during their junior year.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works will be drawn from but not limited to *Speak* by Laurie Halse Anderson, *Romeo and Juliet* by William Shakespeare, et cetera.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; et cetera.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Notebooks
- Midterm Exam, modeled after the Common Core Exam
- Final Exam, modeled after the Common Core Exam

Course Title: English 10

Subject Area: English

Student Grade Level(s): 10

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites:

English 10 candidates must successfully complete English 9; students who do not pass grade 9 will be expected to enroll in summer school for an opportunity to earn course credit.

Goals and Objectives:

English 10 students shall sit for the NYS Common Core Exam during their junior year.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works may be drawn from but not limited to *Of Mice and Men* by John Steinbeck, *Lord of the Flies* by William Golding, *Twelve Angry Men* by Reginald Rose, *Inherit the Wind* by Jerome Lawrence and Robert E. Lee*, Much Ado About Nothing* by William Shakespeare, and excerpts selected from textbooks like *Mirrors and Windows, Connecting in Literature*.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; et cetera.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Notebooks
- Midterm Exam, modeled after the Common Core Exam
- Final Exam, modeled after the Common Core Exam

Course Title: English 10 Honors

Subject Area: English

Student Grade Level(s): 10

Length of Course: full year

Credit Assigned: 1.0

Prerequisites:

Honors candidates must consistently exhibit character traits that include but are not limited to impeccable academic integrity, a dependable work ethic that strives to exceed minimum standards, willingness to seek and accept constructive criticism, frequent and meaningful class participation, active presentation, and authentic enthusiasm for personal growth; successfully complete grade 9 English; possess an Honors class average of at least 92% or a non-Honors class average of at least 95% for consideration; and receive a teacher recommendation from their previous instructor.

Overview:

English 10 Honors also begins preparation for Advanced Placement Literature and Composition, optionally taken during senior year.

Goals and Objectives:

English 10 students shall sit for the NYS Common Core Exam during their junior year.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works may be drawn from but not limited to *Of Mice and Men* by John Steinbeck, *Lord of the Flies* by William Golding, *Life of Pi* by Yann Martel, *Twelve Angry Men* by Reginald Rose, *Inherit the Wind* by Jerome Lawrence and Robert E. Lee, *Much Ado About Nothing* and/or *Hamlet* by William Shakespeare, and excerpts selected from textbooks like *Mirrors and Windows, Connecting in Literature*.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; et cetera.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Notebooks
- Midterm Exam, modeled after the Common Core Exam
- Final Exam, modeled after the Common Core Exam

Course Title: English 11

Subject Area: English

Student Grade Level(s): 11

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites:

English 11 candidates must successfully complete grade 10 English; students who do not pass grade 10 will be expected to enroll in summer school for an opportunity to earn course credit.

Goals and Objectives:

English 11 students shall sit for the NYS Common Core Exam in June; passing this exam is a graduation requirement. NYS has placed renewed emphasis on students achieving a mastery score of 85 or above in order to be deemed college and career-ready upon graduation.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works may be drawn from but not limited to *The Crucible* by Arthur Miller, *Macbeth*

by William Shakespeare, *All But My Life* by Gerda Klein, *The Things They Carried* by Tim O'Brien, and *Ordinary People* by Judith Guest. Classical American literary selections spanning the genre will be selected from two American literature anthologies: *Mirrors and Windows: The American Tradition* and *The Language of Literature: The American Tradition*.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; class research and independent research projects.

Assessment Plan:

- Daily class participation and preparedness
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s): guided by the CCLS rubric.
- Notebooks
- Final examination: NYS Common Core English Language Arts Assessment

Course Title: English 11 Honors

Subject Area: English

Student Grade Level: 11

Length of Course: full year

Credit Assigned: 1.0

Prerequisites:

Honors candidates must consistently exhibit character traits that include but are not limited to impeccable academic integrity, a dependable work ethic that strives to exceed minimum standards,

willingness to seek and accept constructive criticism, frequent and meaningful class participation, active presentation, and authentic enthusiasm for personal growth; successfully complete grade 10 English; receive a teacher recommendation from their previous instructor; and possess an Honors class average of 92% or a non-Honors class average of 95% for consideration.

Overview:

English 11 Honors strengthens preparation for Advanced Placement Literature and Composition, optionally taken during senior year.

Goals and Objectives:

All English 11 Honors students shall sit for the NYS Common Core Exam during January of their junior year; Honors students will be challenged and prepared to achieve NYS level four scores, which equate to 93 or above on the exam.

Materials:

Complex texts spanning the four, major genres of literature: fiction, non-fiction, poetry, and drama; full-length works may be drawn from but not limited to *The Crucible* by Arthur Miller, *The Great Gatsby by* F. Scott Fitzgerald, *Macbeth* by William Shakespeare, *All But My Life* by Gerda Klein, *The Things They Carried* by Tim O'Brien, and *Ordinary People* by Judith Guest. Classical American literary selections spanning the genre will be selected from two American literature anthologies: *Mirrors and Windows: The American Tradition* and *The Language of Literature: The American Tradition*.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; research and independent research.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing

- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Notebooks
- The final examination, which is the NYS Common Core English Language Arts Examination.

Course Title: English 12

Subject Area: English

Student Grade Level(s): grade 12

Length of Course: 1 year

Credit Assigned: 1 English core credit at successful completion of course

Prerequisites:

English 12 candidates must successfully complete English 11.

Goals and Objectives:

English 12 students shall sit a comprehensive local Exam at the end of their senior year.

Materials:

The literature includes various short stories and poems by a variety of authors taken from *Mirrors and Windows: British Tradition Anthology.* Works covered in the course may include but are not limited to excerpts from *Beowulf*, *The Canterbury Tales* by Geoffrey Chaucer, and *Julius Caesar* by William Shakespeare. Works by other authors including John Milton, Jonathan Swift, William Blake, and Robert Browning.

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; research and independent research.

Assessment Plan:

- Daily class participation
- Written assignments
- Reading quizzes
- Essays
- Timed writing
- Common Core parallel tasks
- Individual/collaborative student presentations (Public speaking)
- Individual research assignment(s)
- Research paper (Senior Graduation Requirement)

Course Title: Advanced Placement Literature and Composition

Subject Area: English (core)

Student Grade Level(s): grade 12

Length of Course: 40 weeks plus three months prior to senior year (summer obligations) Credit Assigned: 1.0 credit

Prerequisites:

Advanced Placement Literature candidates must consistently exhibit character traits that include but are not limited to impeccable academic integrity, a dependable work ethic that strives to exceed minimum standards, willingness to seek and accept constructive criticism, frequent and meaningful class participation, active presentation, and authentic enthusiasm for personal growth; have earned English 9, 10, and 11 credits; possess an Honors class average of at least 92% or a non-Honors class average of at least 95% at the time of the candidate interview and beyond for admission consideration; achieve an ELA Regents Examination score of at least 95%, receive a recommendation of her/his most recent English instructor; submit a writing sample that satisfies timing and performance expectations (task available in May of prior academic year); and complete an interview with the AP instructor (during April/May of prior academic year).

NOTES:

All Advanced Placement Literature candidates must commit to attending summer classes during June, July, and/or August and must sit for the Advanced Placement Literature and Composition Exam in May.

Overview:

Welcome! Allow the wonder to begin! From here, we commence discovery of artistry, beauty, humanity, and ourselves. AP English Literature and Composition seeks to engender an appreciation and exploration of language as an artistic medium of personal and communal expression, and literature as a record of human experience through composition. In this light, we shall look for reflections of ourselves in a literary catalog spanning a wide and deep range of authors, epochs, and genres. Such a diverse sampling provides opportunity for all to catch glimpses of who we were, who we are, and who we hope to become. To these ends, students will read closely and deliberately, contemplating the stylistic decisions inherent to all writing and the messages such decisions convey. Likewise, students will respond to literary experiences through personal composition, learning that writing is a process, a vehicle for critical thinking, a method of learning, a means of challenging perceptions and values, and a bastion of personal expression. Such endeavors reflect the objectives of introductory college and university coursework and comply with the curricular expectations elucidated in the AP English Course Description. Such demands create not only rigor but responsibility, a commitment to explore art and ideas that stimulate personal growth, discovering our competencies, lacks, and potential together.

Goals & Objectives:

At the completion of the course, students will:

- Appreciate the artistry of literature and its authors as a means of self-reflection and growth.
- Find composition and literature the means for acquiring, encouraging, and proliferating compassion, amidst other offerings.
- Learn to shape and modify their writing in response to myriad audience and purpose considerations.
- Demonstrate an ability to respond to literature through composition in ways that do not merely report the facts nor summarize plot (exposition), but that move toward analysis, interpretation, evaluation, and development of ideas in depth, suggesting causal relationships and interconnectedness among concepts/ideas.
- Internalize various stylistic strategies (e.g., Compare/contrast, diction, syntax variety and effect, organizational principles, and argument diversity) to develop and deliver their insight.
- Incorporate active and ongoing methodology for drafting and revising efficacious, nonfiction prose.

- Experience creative composition through author sampling and imitation of essays, analyses, criticisms, and poetry.
- Move from writing by formula to writing for expression.
- Have explored literature of the ages, traversing a cannon that begins in Greek tragedy and traces the lines to contemporary poetry and nonfiction, capturing a wide range of perspectives.
- Have expanded their vocabulary to include an array of connotation, denotation, and sophistication.
- Identify the elements and techniques inherent to the creation of literature (e.g., allegory, allusion, apostrophe, cacophony, characterization, figurative language, imagery, irony, personae, plot, setting, symbolism, theme, tone… et cetera), recognize the ways such elements and techniques create meaning, and respond in lucid, cogent prose.
- Learn to critically examine authors' decisions relating to issues of development, dialogue, narrator, point of view, sequence, tone…et cetera.
- Move from categorical language and clichés toward written expression that presents ideas in complex terms, illustrating evidence of new relationships among ideas, and synthesizing ideas into new frameworks of understanding.
- Exhibit the ability and prowess to, in both compositional and verbal response, form aesthetic judgments, comprehend unfamiliar worldviews and philosophies, grasp psychological relationships, and form historical perspectives related to specific works.
- Compare and contrast their own life experiences with those revealed through the aforementioned literary cannon.
- Learn to distinguish fact from inference and judgment, utilizing such distinctions in their composition.
- Successfully sit for the AP English Literature and Composition Examination.
- Earn collegiate experience in rigor and responsibility, perhaps even academic credits.

Prospective Materials:

The following represents an inclusive but not exhaustive list. Said titles shall be complemented by myriad other pieces of literature, poetic and otherwise.

Author	Title
Achebe	*Things Fall Apart*
Albee	*Who's Afraid of Virginia Woolf?; The Zoo Story*
Albom	*Tuesdays with Morrie*
Beah	*A Long Way Gone: Memoirs of a Boy Soldier*
Bradbury	*Something Wicked This Way Comes*
Camus	*The Stranger*
Coelho	*The Alchemist*
Conrad	*Heart of Darkness*
Dickens	*Great Expectations; Hard Times*
Frazier	*Cold Mountain*
Hansberry	*A Raisin in the Sun*
Hesse	*Siddhartha*
Homer	*"The Odyssey"*
Hosseini	*The Kite Runner*
Hugo	*Les Misérables*
Kaufman	*The Laramie Project*
Kingsolver	*The Bean Trees*
Maclean	*A River Runs Through It*
Marquez	*One Hundred Years of Solitude*
McCarthy	*All the Pretty Horses*

Author	Title
Morrison	*Song of Solomon*
Orwell	1*984*
Salinger	*The Catcher in the Rye*
Sebold	*The Lovely Bones*
Shakespeare	*Hamlet; The Tempest*
Shaw	*Pygmalion*
Shelley	*Frankenstein*
Sophocles	*Antigone; Oedipus Rex*
Stoppard	*Rosencrantz & Guildenstern are Dead*
Williams	*A Streetcar Named Desire*

Methods of Study:

Teacher lecture; cooperative group endeavors; individual and collaborative student presentations; class discussion/Socratic dialogue; written assignments; independent reading; inquiry-based research; multi-media experiences; homework; et cetera.

Assessment Plan:

Writing tasks will vary in both form and function, emphasizing author-audience relationships; imaginative, logical, and precise development of thesis and argument; persuasive appeal; vocabulary use that exhibits denotative accuracy and connotative resourcefulness; logical organization, enhanced by techniques of coherence such as repetition, transition, and emphasis; a balance of generalizations with specific illustrative detail; and the use of grammar, mechanics, and sentence structure with deliberate control and purpose for explicit effect. All written work must be neatly submitted; typing is preferred, and often mandated. All written tasks are due at the beginning of class on the designated day, unless otherwise denoted. Late assignments will lose 10% (or the equivalent of one letter grade) of the final grade for the first day late and 20% (or two letter grades)

the second day. All assignments more than two days late will receive a zero. No research/major papers will be accepted late. Lateness is always subject to the discretion of the instructor.

It is the responsibility of the student to complete all assignments; **when absent, it is the responsibility of the student to see the instructor for work to be made up.**

Students' scores will be attributed explicitly, but not exclusively, to the following:

- Active, meaningful class participation
- Quizzes, both announced and unannounced
- Writing tasks, in class and out, often time-limited
- Peer presentations
- Quality and consistency of homework
- Compositional portfolio
- Midterm Exam (if/when apt)
- Final Project and Presentation

FOREIGN LANGUAGE

Course Title: Seneca 2

Subject Area: World Language

Student Grade Levels: 9th or 10th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Overview:

Seneca 2 is a continuation of the subject matter learned in Middle School. The emphasis in this course is to utilize natural usage of the language by increasing vocabulary. The topic areas include nouns, verbs, and adjectives. Students will increase their listening, reading, speaking, and typing. The course promotes a better understanding of Seneca culture and history. This course is designed to be year one of a two-year sequence.

Course Title: Seneca 3

Subject Area: World Language

Student Grade Levels: 10th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Overview:

Seneca 3 is a continuation of the scope and sequence from Seneca 2. There will be a greater emphasis on community, government, and history while focusing on speaking, reading, writing and listening. Students will be exposed to and participate in conversations with higher levels of difficulty. Students will be required to communicate the Seneca Language in a functional and natural usage at a more sophisticated level.

Course Title: Seneca 4

Subject Area: World Language

Student Grade Levels: 11th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Overview:

Seneca 4 will focus on in-depth research on the history of the Seneca and the relationships with the Haudenosaunee Confederacy as well as the United States. The course will include topics such as Treaties, Diplomacy, Sustainability and Good Medicine (art, media, humor, authors and public figures). Language usage will be complex and comprehensive.

Course Title: Seneca 5

Subject Area: World Language

Student Grade Levels: 12th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Overview:

This course will be project based. Students will work on several projects based on natural language usage and understanding commitment to community. All aspects of the course will focus on speaking, reading, writing, and listening at an advanced level. The goal of this course is to ensure that students are eligible for the Seal of Civic Readiness and the Seal of Biliteracy.

Course Title: Spanish 2

Subject Area: Foreign Language

Student Grade Level(s): 9th or 10th grade students

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Successful completion of Spanish 1B and passing grade on the Proficiency Exam in Spanish

Overview:

Spanish 2 is a continuation of the subject matter learned in Middle School. More weight is placed upon the reading and writing part of language learning. The cultural aspect of the course is presented in much the same manner as in Spanish 1. More emphasis is put on acquiring additional vocabulary and grammar along with reading and writing. Quizzes and tests begin to reflect the required four skills: reading, writing, speaking and listening. A local exam is given at the end of this course. Students passing the course may continue on to Level 3.

Goals & Objectives:

Students will continue to increase their vocabulary in the target language. Through each chapter, students will learn and be able to use new vocabulary in a meaningful context to express their ideas.

Students will continue to learn and use new grammar structures while practicing and utilizing information from previous years. In each chapter, new grammar will be presented that will enhance their ability to speak and write on an increasingly more advanced level.

Students will gain confidence in their language abilities for basic communication as well as creative expression. Students will become more aware of the cultures of Hispanic people throughout the world. They will gain cross-cultural understanding and make connections between our culture and that of other Spanish-speaking countries.

Materials {Include title & Author of Text(s)}:

Así Se Dice, Glencoe First Edition, Copyright 2012

Methods of Study:

This course will be based on testing the four main components of language learning—reading, writing, speaking and listening in the target language. Students will continue to learn new vocabulary and grammar structures that will continue to build up their knowledge base. Daily class participation in the target language will be expected and will count into the quarterly averages. Theme-related chapters will present new vocabulary as well as a review of past grammar and introduction of newer, more advanced grammar structures. Quizzes on vocabulary and individual grammar points will be given for each chapter as well as a cumulative chapter test for each chapter. Students will be required to complete several projects throughout the school year in order to demonstrate their language skills in a holistic, real-world style.

Assessment Plan:

Daily class participation and preparation
Weekly homework assignments
Quizzes on vocabulary, grammar, culture
Comprehensive unit tests
Individual projects on various cultural topics
Final exam composed of course long material: vocabulary, grammar, reading, listening, speaking and writing components.
Final Grade: 100% (grade)

80% for quarterly grades

20% for final exam

Course Title: Spanish 3

Subject Area: Foreign Language

Student Grade Level(s): 10th grade students

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Successful completion of Spanish Level 2

Overview:

Spanish 3 places more emphasis on reading, speaking, listening and writing. Classroom participation is expected, especially in the area of developing speaking skills. Practice compositions will be assigned. Quizzes and tests reflect the four skills required for the exam. Students will take a final exam in Spanish upon completion of the course. Students passing the exam and course may continue on to Level 4.

Goals & Objectives:

Students will continue to increase their vocabulary in the target language. Through each chapter, students will learn and be able to incorporate new vocabulary in a meaningful context to express their ideas.

Students will continue to learn and incorporate new grammar structures while practicing and utilizing information learned in previous courses. In each unit, new grammar will be presented which will enhance ability to speak and write on an increasingly more advanced level as required by the NYS Standards for Checkpoint B.

Students will gain confidence in their language abilities for communication as well as creative expression and continue to develop critical thinking skills.

Materials {Include title & Author of Text(s)}:

Así Se Dice, Glencoe First Edition, Copyright 2012

Methods of Study:

The course is built on student participation in the areas of speaking, listening, reading and writing. Grammar presentations will accompany each unit. Students will work in groups and individually to put new grammar structures and vocabulary into practical expressions of the target language. Written assignments will be given to allow students to use new and previously learned material to express and expand upon their thoughts.

Assessment Plan:

Daily class participation and preparation
Classwork and homework assignments
Quizzes on vocabulary and grammar
Comprehensive unit tests
Individual projects
Final exam

Final grade: 100% (grade)
80% for quarterly grades
20% for final exam

Course Title: Spanish 4, Intermediate Spanish

Subject Area: Foreign Language
Student Grade Level(s): 11th grade students
Length of Course: 40 weeks
Credit Assigned: 3.0 college credits assigned from Hilbert College upon successful completion of course.

Prerequisites: Successful completion of Spanish 2, 3 and passing grade of 80 or higher on the Spanish 3 final exam. Teacher recommendation required.

Overview:

Spanish 4 is a cooperative course between the school and Hilbert College where upon completing the course, students can earn three college credits from Hilbert College, (which can be transferred to other colleges and universities if desired). It is designed to accelerate students' academic pursuits and to provide more advanced instruction in secondary school. The student will incur a fee for the course but texts will be provided through the school.

Students will follow the course outline for an Intermediate Level Spanish class taught at Hilbert College and will be learning the same information as these college students, as if they were taking the class at the college. Spanish 4 emphasizes the traditional elements of language: reading, writing, listening and speaking, and combines them with cultural studies of the different Hispanic countries. Heavy emphasis is placed upon communication skills in the target language while integrating cultural elements such as holiday celebrations, customs, history and art. It is expected and required that students participate as much as possible in the target language. Spanish 4 will fine tune students' already existing language skills that have been developed over the past four years.

Goals & Objectives:

Students will continue to increase their vocabulary in the target language. Through each chapter, students will learn and be able to use new vocabulary in a meaningful context to express their ideas. Students will continue to learn and use new grammar structures while practicing and utilizing information from previous years. In each chapter, new grammar will be presented that will enhance their ability to speak and write on a more advanced level.

Students will build on their language base through creative, holistic projects where they will use their language skills for real world situations and to discuss topics of interest to young adults.
Students will gain confidence in their language abilities for basic communication as well as creative expression.

Students will become more aware of the cultures of Hispanic people throughout the world. They will make connections between our American culture and that of the different Latin American countries. Students will become more aware and understanding of the growing number of Hispanic-heritage people living in the United States and the issues that arise from said increase.

Materials {Include title & Author of Text(s)}:

Imagina, Español Sin Barreras, Blanco, José A., 1st Edition, Copyright 2007

Methods of Study:

This course will be based on the four main components of language learning—reading, writing, speaking and listening all in the target language. Students will be expected to do various projects (such as oral presentations, group work, posters, brochures, videos), follow instructions, and write original work all in the foreign language. Theme-related chapters will present new vocabulary as well as a review of past grammar and introduction of newer, more
advanced grammar structures.

Assessment Plan:

Daily class participation and preparation
Homework assignments
Quizzes on vocabulary, grammar, culture
Comprehensive unit tests
Individual and group projects on various cultural topics

Final exam composed of course long material: vocabulary, grammar, reading, listening, and writing components. There will also be a mandatory speaking component on the final exam. The final exam is written and provided by the Program Director of Hilbert College.

Final Grade: 100% (grade)

80% for quarterly grades
20% for final exam

Course Title: Spanish 5, Advanced High School Spanish

Subject Area: Foreign Language

Student Grade Level(s): 12th grade

Length of Course: 40 weeks

Credit Assigned: 3 college credits from Hilbert College, upon successful completion of course.

Prerequisites: Successful completion of Spanish 4 with overall course average of 85 or higher and teacher recommendation required.

Overview:

The Spanish 5 program at Akron is a cooperative course between the school and Hilbert College where upon completing the course, students can earn three college credits from Hilbert College (which can be transferred to other colleges and universities if desired). It is designed to accelerate students' academic pursuits and to provide more advanced instruction in secondary school. The student will incur a fee for the course but texts will be provided through the school.

Students will follow the course outline for an Intermediate Level Spanish class taught at Hilbert College and will be learning the same information as these college students, as if they were taking the class at the college. Course goals for Spanish 5 will include reinforcement of grammar structures with an emphasis on verbs, tense formation, sequencing and usage of the language in the four basic skill areas – reading, writing, listening and speaking. It will also include the study of various aspects of Hispanic peoples and their cultures. It is expected and required that students speak and participate as much as possible in the target language.

Goals & Objectives:

Foster Core Skills: Advanced writing, speaking, listening, reading, and fluency.

This course will foster the ability to write and speak with clarity and precision to promote clear thinking and effective communication, and supports the ability to develop sustained, well-reasoned, and clearly presented arguments. The curriculum encourages students to read critically and listen perceptively. It advances their quantitative skills and develops their capacity for formal reasoning across academic disciplines and in daily life.

Prepare Students for Living in a Diverse and Global Society: Awareness and appreciation of world cultures and languages, non-dominant groups and societies at home and abroad.

This course prepares students to live in a diverse and global society by fostering awareness and appreciation of world cultures and of non-dominant groups at home and abroad—their histories and heritage, their languages, social perspectives, and artistic expression. The curriculum promotes a greater awareness of the cultural identity of oneself and others to enable participation as social beings in social institutions.

Promote Integrative Learning: Collaborative work combining analytical and experiential learning.

To promote integrative learning, students will collaborate with peers to apply classroom learning to identify and analyze problems, design and solutions through group work. This intellectual collaboration creates a contributing citizen of her/his respective academic communities.
Prepare Students for Commitment to Lifelong Learning: Development of motivation to sustain a lifelong learning capacity for intellectual growth and self-renewal.
Students will learn the value of lifelong learning through required courses that address values and ethical thinking. The curriculum will support and encourage self-reflection in students' academic, professional, and personal lives.

Materials {Include title & Author of Text(s)}:

The Ultimate Spanish Review and Practice, Gordon, R. and Stillman, D., 1st Edition, Copyright 1999
Methods of Study:
While some of the course will entail a lecture format, to develop oral communication skills, it is to be expected that students will-participate orally as much as possible. Emphasis is placed on conducting as much of the class in Spanish as possible. Some practicing in small groups or with a partner will provide an opportunity to use the language, with an additional emphasis on individual opportunities for oral expression. The assignments will continue to review the structures presented in class. The writing process will be used to give students the opportunity to perfect their writing skills on a variety of topics. More writing will be included in the testing process. Readings and other media will reinforce cultural awareness of the Spanish-speaking world.

Assessment Plan:

Daily class participation and preparation
Weekly homework assignments
Quizzes on vocabulary, grammar, culture
Comprehensive unit tests
Individual and group projects on various cultural topics
Final exam composed of course long material: vocabulary, grammar, reading, listening, and writing components. There will also be a mandatory speaking component on the final exam. The Final exam is written and provided by the Program Director of Hilbert College.

Final Grade: 100% (grade)

80% for quarterly grades

20% for final exam

HEALTH, P.E. & WELLNESS

Course Title: Health (Mandatory)

Subject Area: Health Education

Student Grade Level(s): Grades 9-12

Length of Course: full year

Credit Assigned: 1.0 credit

Prerequisites: This course is designed for the 10th grade student.

*The completion of an extended research project and 5 hours of community service are both required for course credit. Successful completion of this course is required for graduation.

Overview:

The senior high health program is designed for the 10th grader. It is a conceptual approach to health, which emphasizes the importance of responsible decision-making to a student's overall wellness. The course encourages students to evaluate their own lifestyle behaviors, learn the skills necessary to change negative behavior, and set goals for improving their personal well-being. Specific attention is given to the acquisition and incorporation of a variety of daily coping strategies. The course is divided into six units: mental health, preventing substance abuse, social health, the human life-cycle, disease prevention and nutrition/fitness. The completion of an extended research project and 5 hours of community service are both required for course credit. Successful completion of this course is required for graduation.

Goals & Objectives:

Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Students will demonstrate the ability to access information, products and services to enhance health.

Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

Students will demonstrate the ability to use decision-making skills to enhance health.

Students will demonstrate the ability to use planning and goal-setting skills to enhance health behaviors.

Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors.

Students will demonstrate the ability to practice health-enhancing behaviors and coping strategies to avoid or reduce health risks.

Students will demonstrate the ability to advocate for personal, family, and community health.

Materials {Include title & Author of Text(s)}:

Several resource books/magazines within the classroom

Specific Internet Sites approved by the teacher:

cdc.gov, nih.gov, teenshealth.org, cancer.org, nida.gov

Time Allotment per unit:

Unit Name	Number of weeks per unit
Skills: Self-management & communication	2 weeks
Mental Health & Stress management	13 weeks
Preventing Substance Abuse: Decision-Making	8 weeks
Social Health/Relationships: Decision-Making	8 weeks
Human Growth & Development	2 weeks
Disease Prevention: Decision-making	2 weeks
Nutrition/Fitness: Planning & Goal setting	5 weeks

Methods of Study:

This course will be built on teacher overview lectures, class discussions, individual student research and small group presentations. Research for a final extended task will begin in the second half of the course. A product detailing a risk behavior, its consequences and strategies necessary to reduce the risk behavior will be created and presented to the class. Each student must successfully complete 5 hours of community service as well as a written reflection of the impact of the service on the individual and community.

Assessment Plan:

Daily class participation and preparation

Unit projects

Quizzes

Individual/group research

Presentations

Completion and reflection of community service

Journal entries

Current Events presentations

Baby Project

Final extended task

Written Final Exam

Course Title: Physical Education (Mandatory)

Subject Area: Physical Education

Student Grade Level(s): Grades 9-12

Length of Course: 40 weeks

Credit Assigned: 0.5 credit

Overview:

The Akron High School Physical Education department strives to provide each student with an enjoyable educational experience that is viable and an essential component in the education of the

whole child. The learning process in physical education is not unlike the “lab” experience in the sciences. Students must actively engage in the activity, document, and collect data specific to each unit.

Goals and Objectives:

The goal of the ACS Physical Education teachers is to instruct students to acquire the necessary knowledge and skills to become lifelong learners. The ACS P.E. staff will accomplish this goal by focusing on the New York State Learning Standards for Physical Education.

Standard 1: Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

Standard 2: Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.

Standard 3: Students will understand and be able to manage their personal and community resources.

Time Allotment:

In the gymnasium, the students will be taught the skills and knowledge through individual type activities, team sports, net games and rhythms. The students at ACS will also take part in the Fitness Gram which is a fitness test given to each student twice a year. The Fitness Gram involves flexibility, agility, endurance, and strength. CPR will be taught yearly.

Assessment Plan:

Daily grades will be given to your child using a rubric system. The number they will receive will range from a 4 being exemplary to a 1 being poor. These grades, along with any assessment grades, will be averaged together and every student will receive a numerical grade on their report card. The grade will also be averaged into their overall average. Every student will be graded on his/her abilities and efforts given during class. Students will also take a series of quizzes to indicate their knowledge of the activity taught.

Course Title: Wellness Center

Subject Area: Health & Wellness

Student Grade Level(s): Grades 9-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Overview:

This elective will be offered every other day for a half-year (Semester 1/Semester 2). Students will have the opportunity to take a half credit health course that consists of lessons in the weight/wellness room. These lessons will include weight lifting safety, provide students with opportunities to familiarize themselves with equipment in the weight room, and create an individualized wellness plan for each student. This course is a supplement to the required health and physical education classes.

Goals and Objectives:

The goal of this course is for students to gain a better understanding of fitness components and the relationship between physical activity and mental health.

Objective 1: Students will gain a better understanding of physical activity and the benefits it can have on their mind and body.

Objective 2: Student will be engaged and inspired through SEL (social-emotional learning) components.

Objective 3: Students will create an individualized wellness plan with their teacher to set goals they would like to achieve during this course.

Time Allotment:

Half-year (Semester 1/Semester 2) course, offered every other day.

Assessment Plan:

Students will create an individualized fitness plan with their teacher and will work toward their goals for the duration of the semester. Students will have final check at the end of the semester. Student will also complete a fitness plan entry for each class as well as wear Heart Rate monitors to track their progress.

MATH

Course Title: Advanced Placement Calculus

Subject Area: Mathematics

Student Grade Level(s): Grade 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit w/ the possibility of college credit

Prerequisites: Pre-Calculus class passed and/or teacher recommendation.

Mandatory AP exam in May.

Overview:

Provides students with the background to use calculus as an instrument for problem solving, developing thought process, and for success in future mathematics classes. In an effort to be prepared for the rigors of the AP assessment, students are assessed formally through the course of the school year with both multiple-choice and free-response modeled questions. Each test a student takes has two parts to it: a non-calculator part and a calculator part. Informal evaluations occur on a day-to-day basis and help to guide the class. Whether a formal or informal assessment is being used, students are persistently being asked to justify their answers. Students are asked to verbally state solutions, techniques, and any support to answers daily. Students are also expected to have proficient skills using a graphing calculator. The use of a graphing calculator allows students to investigate and support concepts already taught. Each student is provided a graphing calculator if they do not already have one.

Goals & Objectives:

The course teaches all topics associated with functions, graphs, and limits, derivatives, and integrals as delineated in the AP Calculus AB course outline. The course provides students with the opportunity to work with functions represented in a variety of ways (graphically, numerically, analytically, and verbally) and emphasizes the connections among these representations. The course teaches students how to communicate mathematics and explain solutions to problems both verbally and in written sentences.

The course teaches students how to use graphing calculators to help solve problems, experiment, interpret results, and support conclusions.

Materials:

Calculus: Concepts and Contexts by Stewart (Brooks/Cole); review book (Barron's, Arco, etc.); graphing calculator (TI-84 plus preferred).

Time Allotment per unit:

Unit Name	Number of weeks per unit
Unit I: Pre- Calculus Review	1 week
Unit II: Limits and Continuity	3 weeks
Unit III: Derivatives	4 weeks
Unit IV: Rules to Finding Derivatives	4 weeks
Unit V: Applications of Derivatives	4-5 weeks
Unit VI: Integrals	4 weeks
Unit VII: Advance Integration	4-5 weeks

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Informal Questioning, daily homework assignments, quizzes and unit tests are all means of assessment.

All students must take the Advanced Placement Calculus AB exam in May and a local final.

80% for quarterly grades

20% for final exam

Course Title: Algebra

Subject Area: Mathematics

Student Grade Level(s): Grade 9 and accelerated students in Grade 8

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Math 8 course passed

Overview:

Regents Algebra represents a change to the Next Generation State Standards. The topics covered in the course include: Evaluating expressions, properties of real numbers, solving and graphing linear equations and inequalities, extensive work on linear, quadratic, exponential, absolute value, piece-wise, step, cubic and square root functions, systems of equations and inequalities, rules of exponents, operations on polynomials and radicals, statistics and extensive use of the graphing calculator.

Goals & Objectives:

The students will learn and become proficient with all of the topics of the course. Homework will be assigned each day to be sure students have practiced each of the skills. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Materials:

Algebra 1 Common Core, (Pearson)

Time Allotment per unit:

Unit Name	Number of days per unit
Foundations for Algebra	10 days
Solving Linear Equations	13 days
Solving Linear Inequalities	5 days
Introduction to Functions	13 days
Linear Functions	14 days
Systems of Equations & Inequalities	13 days
Exponents & Exponential Functions	14 days
Polynomials & Factoring	16 days
Radicals, Square Root & Cube Root Functions	14 days
Quadratic Functions, Equations & Regressions	27 days
Statistics	14 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, and class participation are all possible means of assessment.

All students must take the Algebra Regents exam at the end of the year, which is a graduation requirement.

80% for quarterly grades

20% for final exam

Course Title: Algebra 2 Regents

Subject Area: Mathematics

Student Grade Level(s): Grade 11 and accelerated Grade 10 and possibly Grade 12

Length of Course: 40 weeks

Credit Assigned: 1 math core credit

Prerequisites: Course credit in Algebra and Geometry with a 75 % or higher course credit in Geometry. Must also have passed Algebra and Geometry Regents exams.

Overview:

This is a third year Regents course which extends Next Generation Algebra and Geometry to the study of the complex number system, advanced functions, systems involving non-linear equations, radicals, negative and fractional exponents, logarithms, sequences and series, probability, statistics, and the six basic functions of trigonometry, and the extensive use of the graphing calculator.

Goals & Objectives:

Upon completion of this course, students will be proficient in working with all the topics covered in the course. Students should spend time both during and after class on preparation for the Algebra 2 Regents exam. This exam is a requirement for the Advanced Regents diploma. Homework will be

assigned each day to ensure students have practiced each of the skills. Outside practice is highly recommended. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Materials:

Chapter packets will be provided for each unit of study.

Time Allotment per unit:

Unit Name	Number of days per unit
Functions	8 days
Quadratic Functions & Equations	16 days
Polynomials & Polynomial Functions	17 days
Radicals &Radical Functions	12 days
Exponential & Logarithmic Functions	11 days
Rational Expressions	8 days
Geometric Sequences & Series	10 days
Systems	13 days
Probability	9 days
Statistics	18 days
Trigonometry	19 days

Methods of Study:

The course will be built upon classroom lecture and exploration along with homework review. Homework will be assigned each day to be sure students have practiced each of the skills. Extra practice periods are expected. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Assessment Plan:

Daily homework assignments, tests, notebook grades, and class participation are possible means of assessment.

All students must take the Algebra 2 Next Generation Regents exam at the end of the year, which is required for an Advanced Regents Diploma.

80% for quarterly grades

20% for final exam

Course Title: Algebra 2

Subject Area: Mathematics

Student Grade Level(s): Grade 11 or 12 or accelerated Grade 10

Length of Course: 40 weeks

Credit Assigned: 1 math core credit

Prerequisites: Course credit in Algebra and Geometry. Must has also passed the Algebra Regents exam.

Overview:

This is a third-year math course which extends the Next Generation Algebra and Geometry standards. This course is recommended for those students who can use additional support with Algebra 2 topics, particularly those whose achievement levels in Algebra and Geometry was in the 65 – 79 percent range, or who have received a teacher recommendation. Units of study include the complex number system, advanced functions, systems involving non-linear functions, radicals, negative and fractional exponents, logarithms, sequences and series, probability, statistics and the six basic functions of trigonometry. Extensive use of the graphing calculator will also be expected. At the end of the course, students will be prepared to take the Algebra 2 local exam. Students will be able to elect to take the Algebra 2 Regents exam by participating in extensive Regent's review offered after school. This exam is a requirement for an Advanced Regents diploma.

Goals and Objectives:

Upon completion of this course, students will be proficient in working with all the topics covered in the course. Homework will be assigned to ensure students have practiced and understood the skills.

Materials:

Chapter packets will be provided for each unit of study.

Time Allotment per unit:

Unit	Number of Days
Functions	8
Quadratic Functions & Equations	16

Unit	Number of Days
Polynomials & Polynomial Functions	17
Radicals & Radical Functions	12
Exponential & Logarithmic Functions	11
Rational Expressions	8
Sequences & Series	10
Systems	13
Probability	9
Statistics	18
Trigonometry	19

Methods of Study:

The course will be built upon classroom lecture and exploration along with homework review. Homework will be assigned each day to be sure students have practiced each of the skills. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Assessment Plan:

Daily homework assignments, tests, notebook grades, and class participation are possible means of assessment.

All students have the option of taking the Algebra 2 Next Generation Regents exam at the end of the year, provided they have attended the after-school Regents review sessions. This exam is required for an Advanced Regents diploma.

Course Title: Algebra RA

Subject Area: Mathematics

Student Grade Level(s): Grade 9

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Math 8 course credit

Overview:

Algebra Regents A is the first year of a two-year course designed to cover the topics necessary for the state mandated Next Generation Algebra Regents exam. The Next Generation Algebra exam will be given at the end of the students' second year. The course covers the same topics from the 1-year Algebra Regents course, but at a slower pace. Students taking this course will meet only the minimum standard requirements for graduation. A heavy emphasis will be placed on the use of the graphing calculator.

Goals & Objectives:

Upon completion of this course, students will have become familiar with evaluating expressions, properties of real numbers, solving and graphing linear equations and inequalities, extensive work on linear, quadratic, exponential, absolute value, piece-wise, and step functions, systems of equations and inequalities, rules of exponents, operations on polynomials and extensive use of the graphing calculator.

Materials: *Algebra 1 Common Core*, Pearson

Time Allotment per unit:

Unit Name	**Number of days per unit**
Foundations for Algebra	15 days
Solving Linear Equations	16 days
Solving Linear Inequalities	8 days
Introduction to Functions	17 days
Linear Functions, Sequences & Regressions	18 days
Systems of Equations & Inequalities	19 days
Exponents & Exponential Functions	19 days
Polynomials & Factoring	21 days
Non-Linear Functions	4 Days

Methods of Study:

This course will be built upon classroom lecture, exploration and homework review. Daily written assignments and extra practice periods are expected.

Assessment:

Daily homework assignments, quizzes, test, notebook checks and classroom participation are all possible means of assessment.

All students must take a local Algebra Next Generation final exam at the end of the year.

80% for quarterly grades

20% for final exam

Course Title: Algebra RB

Subject Area: Mathematics

Student Grade Level(s): Grade 10

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Algebra Regents A course credit

Overview:

Algebra Regents B is the second year of a two-year course designed to cover the topics necessary for the state mandated Next Generation Algebra Regents exam. Students taking this course will take the Next Generation Algebra Regents exam at the end of the current year. This course will build upon the topics learned in Algebra Regents A and introduce new topics as well. Students taking this course will meet only the minimum standard requirements for graduation. A heavy emphasis will be placed on the use of the graphing calculator.

Goals & Objectives:

Upon completion of this course students will have become familiar with or review the following topics: Evaluating expressions, properties of real numbers, solving and graphing linear equations and inequalities, extensive work on linear, quadratic, exponential, absolute value, piece-wise, step, cubic and square root functions, systems of equations and inequalities, operations on polynomials and radicals, statistics and extensive use of the graphing calculator.

Materials: *Algebra 1 Common Core*, Pearson

Time Allotment per unit:

Unit Name	Number of days per unit
Foundations for Algebra	9 days
Solving Linear Equations	11 days
Solving Linear Inequalities	6 days
Introduction to Functions	14 days
Linear Functions	13 days
Systems of Equations & Inequalities	14 days
Polynomials & Factoring	15 days
Radicals	10 days
Quadratic Functions & Equations	26 days
Statistics	14 days

Methods of Study:

This course will be built upon classroom lecture, exploration and homework review. Daily written assignments and extra practice periods are expected.

Assessment:

Daily homework assignments, quizzes, test, notebook checks and classroom participation are all possible means of assessment

All students must take the Algebra Regents exam at the end of the year, which is a graduation requirement.

80% for quarterly grades

20% for final exam

Course Title: Algebra X

Subject Area: Mathematics

Student Grade Level(s): Grade 9

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Math 8 course passed

Overview:

Algebra Regents X covers the same topics as Algebra Regents, but allows for more time for reinforcement and remediation because it meets 8 times per 6-day cycle.

Goals & Objectives:

The students will learn and become proficient with all of the topics of the course. Homework will be assigned each day to be sure students have practiced each of the skills. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Materials:

Algebra 1 Common Core, Pearson

Time Allotment per unit:

Unit Name	**Number of days per unit**
Foundations for Algebra	10 days
Solving Linear Equations	13 days
Solving Linear Inequalities	5 days
Introduction to Functions	13 days
Linear Functions	14 days
Systems of Equations & Inequalities	13 days
Exponents & Exponential Functions	14 days
Polynomials & Factoring	16 days
Radicals, Square Root & Cube Root Functions	14 days
Quadratic Functions, Equations & Regressions	27 days
Statistics	14 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected. Reinforcement and remediation will take place during the X days since the class meets 8 times per 6-day cycle.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, and class participation are all possible means of assessment.

All students must take the Algebra Regents exam at the end of the year, which is a graduation requirement.

80% for quarterly grades

20% for final exam

Course Title: College Mathematics

Subject Area: Mathematics

Student Grade Level(s): Grade 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Credit in Algebra 2

Overview:

This course is the equivalent to the first year of study in college algebra and trigonometry. The sequence is preparatory for an introductory to calculus class. Basic algebra skills are reviewed and extended. Functions and their inverses are studied along with the properties, graphs and transformations of linear, quadratic, rational, absolute value, radical, exponential, logarithmic, and trigonometric functions. A deeper study of trigonometry includes fundamental trigonometry, graphs of trigonometric functions, trigonometric identities and equations, inverse trigonometric functions, and applied trigonometry. Other topics included are matrices, and arithmetic and geometric sequences and series. Related application problems are incorporated throughout the course.

Goals & Objectives:

Upon completion of this course, students will be proficient with all of the topics of the course. The course provides students with the opportunity to work with functions represented in a variety of ways (graphically, numerically, analytically, and verbally) and emphasizes the connections among these representations. The course teaches students how to use graphing calculators to help solve problems, experiment, interpret results, and support conclusions.

Materials: *Algebra and Trigonometry*, Aufmann & Nation (Cengage Learning)

Time Allotment per unit:

Unit Name	Number of days per unit
Preliminary Concepts	15 days
Equations and Inequalities	16 days
Functions and Graphs	19 days
Polynomial and Rational Functions	17 days
Exponential and Logarithmic Functions	18 days
Trigonometry Functions	17 days
Trigonometric Identities, Inverse Functions, and Equations	16 days
Applications of Trigonometry	8 days
Systems of Equations and Inequalities	11 days
Matrices	15 days
Sequences, Series, and Probability	16 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Informal Questioning, daily homework assignments, quizzes & unit tests are all means of assessment. All students must take a Regents style exam at the end of the year.

80% for quarterly grades

20% for final exam

Course Title: Geometry

Subject Area: Mathematics

Student Grade Level(s): Grade 10 and accelerated Grade 9

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisite: Algebra course credit and passing the state Algebra exam.

Overview:

Geometry is the second, high school level math course that has a state exam at the end of the year. The topics covered in the course include tools of geometry, reasoning and proof, fundamentals of geometry (angle relationships, congruent and similar triangles, lines, polygons and quadrilaterals, circles), right triangle trigonometry, area, volume, constructions, and transformational geometry.

Goals and Objectives:

The students will learn and become proficient with all topics of the course presented through classroom discussion and lectures of the material. Homework will be assigned each day to ensure students practice the required skills. Tests and quizzes will assess the mastery of the required skills. Passing the state exam is a major objective of the course.

Materials:

Geometry Common Core, Pearson (referential textbook provided by teacher)

A mathematical compass and straightedge (Suggested)

Time Allotment per unit:

Unit Name	**Number of days per unit**
Compass skills and angle basics	11 days
Lines and angles	9 days
Rigid Motions	12 days
Congruent Triangles	13 days
Relationships Within Triangles	7 days
Polygons & Quadrilaterals	12 days
Similarity	16 days
Right Triangles & Trigonometry	14 days
Coordinate Geometry	12 days
Circles	13 days
Area & Volume	15 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, and class participation are all possible means of assessment. All students must take the NYS Geometry exam at the end of the year.

80% for quarterly grades

20% for final exam

Course Title: Geometry X

Subject Area: Mathematics

Student Grade Level(s): Grade 10

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisite: Algebra course credit and passing the state Algebra exam.

Overview:

Geometry Regents X covers the same topics as Geometry but allows for more time for reinforcement and remediation because it meets 8 times per 6-day cycle.

Goals and Objectives:

The students will learn and become proficient with all topics of the course presented through classroom discussion and lectures of the material. Homework will be assigned each day to ensure students practice the required skills. Tests and quizzes will assess the mastery of the required skills. Passing the state exam is a major objective of the course.

Materials:

Geometry Common Core, Pearson (referential textbook provided by teacher)

A mathematical compass and straightedge (Suggested)

Time Allotment per unit:

Unit Name	Number of days per unit
Compass skills and angle basics	11 days
Lines and angles	9 days
Rigid Motions	12 days
Congruent Triangles	13 days
Relationships Within Triangles	7 days
Polygons & Quadrilaterals	12 days
Similarity	16 days
Right Triangles & Trigonometry	14 days
Coordinate Geometry	12 days
Circles	13 days
Area & Volume	15 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, and class participation are all possible means of assessment. All students must take the Geometry Regents exam at the end of the year.

80% for quarterly grades
20% for final exam

Course Title: Intermediate Algebra

Subject Area: Mathematics

Student Grade Level(s): 11th or 12th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Overview:

Intermediate Algebra is a course that is designed to provide a strong background in algebra for college bound students or those seeking a Regents with Distinction diploma. The course covers: the properties of real and imaginary numbers; types of equations and inequalities (including fractional, linear and quadratic); types of products and factoring; ratios; proportions; exponents; radicals; and graphing systems of equations including word problems.

Goals & Objectives:

Upon completion of this course, students will be proficient in working with all the topics covered in the course. Students should spend time both during and after class on preparation for their in-class tests and quizzes, as well as their local course final exam. This exam will be a cumulative assessment of the skills learned and necessary to move on to Algebra 2. Homework will be assigned each day to ensure students have practiced each of the skills. Outside practice is highly recommended. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Materials:

Integrated Mathematics Course III, Keenan and Gantert

Time Allotment per unit:

Unit Name	**Number of days per unit**
Rational Numbers	16 days
Rational Expressions	16 days
The Irrational Numbers and the Real Numbers	26 days
Functions and Graphs	14 days
Systems of Equations	14 days
Exponential Functions	17 days
The Complex Numbers	21 days
Systems of Linear and Quadratic Equations	12 days
Trigonometric Functions	7 days
Trigonometric Applications	12 days

Methods of Study:

The course will be built upon classroom lecture and exploration along with homework review. Homework will be assigned each day to be sure students have practiced each of the skills. Extra practice periods are expected. Tests and quizzes will follow classroom discussion and lectures of the material covered.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, projects, and class participation are all possible means of assessment.
All students will take a local Intermediate Algebra exam at the end of the year.
80% for quarterly grades
20% for final exam

Course Title: Math Applications

Subject Area: Mathematics

Student Grade Level(s): Grades 11 and 12

Length of Course: 40 weeks

Credit Assigned: 1.0

Prerequisites: Algebra RA and Algebra RB, or Algebra RX

Overview:

Math Applications is a course designed to further students' algebraic skills to prepare them for real world situations. The majority of the course will be spent on traditional Algebra work using class notes. The projects will cover a variety of mathematical topics including problem solving, geometry, measurement, probability, algebra, and graphing.

Goals & Objectives:

Upon completion of this course, students will be proficient with working in the real number system, solving algebraic equations, performing operations on algebraic expressions, solving linear and quadratic equations, area and volume applications, conversions, and will have improved money sense. The algebraic skills developed will prepare the students for Intermediate Algebra. Students

will also improve skills in using research, communication, modeling, and other math skills in the critical thinking process employed in their mathematical applications.

Materials:

Binder and folder/notebook and folder

Time Allotment per Unit:

Unit Name	Number of days per unit
Unit 1: Ratios/Fractions	12 days
Unit 2: Conversions	7 days
Unit 3: Paychecks	10 days
Unit 4: Budgeting	9 days
Unit 5: Recipes and calories	9 days
Unit 6: Diet/exercise math. Planning a diet/workout plan	9 days
Unit 7: Area	15 days
Unit 8: Volume	15 days
Unit 9: Linear equations	16 days
Unit 10: Quadratics and factoring	16 days
Unit 11: Exponential equations (investments)	14 days
Unit 12: Stocks and investments	16 days

Methods of Study:

The course will be built upon classroom lecture and exploration along with homework review. Homework will be assigned most days to be sure students have practiced each of the skills. Tests and quizzes will follow classroom discussion and lectures of the material covered. Projects will also be a large part of their grade, applying the material learned.

Assessment Plan:

Daily homework assignments, quizzes, tests, notebook grades, and class participation are all possible means of assessment.

All students must take the local Math Applications exam at the end of the year.

80% for quarterly grades

20% for final exam

Course Title: Pre-Calculus

Subject Area: Mathematics

Student Grade Level(s): Grade 12 and accelerated students in Grade 11

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: 75% or greater in Algebra 2 or teacher recommendation.

Overview:

This course is for students who have successfully completed Algebra 2. The course is fast paced and rigorous. All students must take a Regent style local exam at the end of this course. The topics of advanced algebra are treated in a more formal, analytical viewpoint and work towards the introduction to calculus. Some topics covered are linear and polynomial equations and inequalities; relations, functions, and graphs; exponents and logarithms; trigonometry; complex numbers; conic sections; triangle trigonometry; advanced graphing; and sequences and series. Limits, simple differentiation, and some applications of the calculus to analytic geometry are introduced.

Goals & Objectives:

Upon completion of this course, students will be proficient with all of the topics of the course. The course provides students with the opportunity to work with functions represented in a variety of ways (graphically, numerically, analytically, and verbally) and emphasizes the connections among these representations. The course teaches students how to use graphing calculators to help solve problems, experiment, interpret results, and support conclusions.

Materials:

Advanced Mathematics: A Precalculus Course, Brown and Robbins (Houghton Mifflin)

Time Allotment per unit:

Unit Name	Number of days per unit
Coordinate Geometry	10 days
Polynomials	14 days
Inequalities	10 days

Unit Name	Number of days per unit
Functions	10 days
Exponents and Logarithms	15 days
Trigonometry	15 days
Right Triangle Trigonometry	9 days
Advanced Graphing	18 days
Conic Sections	15 days
Sequences and Series	19 days
Introduction to Calculus	17 days
Final Exam Review	10 days

Methods of Study:

This course will be built upon classroom lecture and exploration along with homework review. Daily written assignments and extra practice periods are expected.

Assessment Plan:

Informal Questioning, daily homework assignments, quizzes & unit tests are all means of assessment. All students must take a Regents style exam at the end of the year.

80% for quarterly grades

20% for final exam

Course Title: Statistics in Sports

Subject Area: Mathematics

Student Grade Level(s): Grades 10-12

Length of Course: 20 weeks

Credit Assigned: .5 math elective credit

Prerequisites: Course credit in Algebra and Geometry or concurrent with Geometry.

Overview:

This half-unit course focuses on analyzing, gathering, and interpreting data related to sports. Students will undergo an in-depth study of probability, odds, and statistics and how they are used in real-world sports settings.

Goals and Objectives:

The goal of this course is to introduce students to key statistical concepts, apply them to real-world sports data, and develop critical thinking skills related to sports analytics. This course is designed to give students a well-rounded foundation in sports statistics while allowing them to see the relevance of mathematics and statistics in real-world applications.

Materials:

Chapter packets will be provided for each unit of study.

Time Allotment per unit:

Unit	Number of Days
Introduction to Sports Statistics	10 days
Descriptive Statistics	10 days
Probability & Probability Distribution	10 days
Survey methods & Sampling	10 days
Correlation & Regression Analysis	15 days
Hypothesis Testing & Statistical Inference	10 days
Game Theory	10 days
Sports Analytics in the Real World	10 days
Capstone Project	10 days

Methods of Study:

This class will be built upon applying real world sports data to key statistical concepts. Classroom lecture, homework, projects, mini-studies, collaboration with peers and the use of online resources are all possible means of strengthening student understanding and making connections between statistics and sports.

Assessment Plan:

Use of formative assessments such as discussions, quizzes and mini-tasks and summative assessments such as unit tests, projects and real-world case studies could all be used to evaluate knowledge application. A capstone project will be conducted as a conclusion to the course.

MUSIC

Overview:

Akron High School's music program presents a variety of approaches to the study of Music which directly relate to the State Standards of Music Education. It is designed to teach music literacy and music performance skills. This course engages the imagination, fosters flexible ways of thinking and problem solving, develops disciplined effort and builds self-confidence. The knowledge, skills, and attitudes attained through this program will reinforce and extend the concepts learned in both the elementary and middle school music programs.

Students will participate in weekly lessons and rehearsals, as well as have the opportunity to play in small ensembles and attend local Solo Evaluations. Lessons are the cornerstone of the Instrumental Music program. Students are required to attend one lesson per 6-day cycle during the course of the school year. Development of the skills and concepts introduced in lessons will result in the students' readiness to participate in a performing ensemble. In lessons, students will demonstrate mastery of the following:

Tone production, Intonation, Note Accuracy, Rhythmic Accuracy, Technique, Interpretation, Idiomatic Styles, Sight Reading and basic Music Theory.

Goals & Objectives:

The goals and objectives of Akron's Music Department are to engage all students in a musical experience through the means of performing, listening, and creating. Through promoting a culture of success and personalizing learning experiences, we hope to enhance the students' ability to develop:

- The whole person

- Creativity/imagination
- Self-esteem
- Individual music skills
- Cooperative group and leadership skills
- Appreciations for diversity
- Self-discipline

We believe that music is an integral part of the human experience, evident in everyday life. The fundamental goal of our music program is to instill an enjoyment and appreciation of music that flourishes throughout a lifetime. In addition to this goal, our objective is to provide experiences that follow both the State and National Standards of Music.

New York State Standards of the Arts:

- Standard 1: Creating, performing, and participating in the Arts

o Students will actively engage in the processes that constitute creation and performance in the arts (dance, music, theatre, and visual arts) and participate in various roles in the arts.

- Standard 2: Knowing and Using Arts Materials and Resources

o Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

- Standard 3: Responding to and Analyzing Works of Art

o Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.

- Standard 4: Understanding the Cultural Contributions of the Arts

o Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.

National Standards for Music Education

- Singing, alone and with others a varied repertoire of music
- Performing on instruments, alone and with others, a varied repertoire of music.
- Improvising melodies, variations, and accompaniments.

- Composing and arranging music within specified guidelines.
- Reading and notating music.
- Listening to, analyzing, and describing music.
- Evaluating music and music performances.
- Understanding relationships between music, the other arts, and disciplines outside the arts.
- Understanding music in relation to history and culture.

Course Title: Concert Band

Subject Area: Instrumental Music

Student Grade Level(s): 9 - 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Complete Middle School Band curriculum or proficiency on a band instrument equal to NYSSMA standards level 3.

Materials {Include title & Author of Text(s)}:

To be chosen from the level 4 – 6 concert and wind ensemble literature recommended by New York State School Music Association and as listed in the updated NYSSMA manual and from various publishers not included in the NYSSMA list.

Exercises for Ensemble Drill — Raymond C. Fussell

A series of warm up exercises, technical studies and rhythm drills for daily practice. *Symphonic Warm-ups for Band* – Claude T. Smith
A contemporary approach to the development of tone, technique and style.

Smart Music Computer Assessment

Instrument specific materials.

Time Allotment per unit:

While there are no time restrictions placed on acquiring specific music skills, it is hoped that the majority of the students will reach benchmarks of achievement by the end of each grade level. In accordance with our district's strategic plan, music instruction is a personalized learning experience. Each musician progresses according to his/her own rate of success.

Methods of Study:

Full ensemble rehearsal-homogeneous section study-chamber music study Assessment

Plan: Instrumental group lesson

Quarterly performance evaluation

Course Title: Jazz Lab (9-12) (full year course – no credit)

Description:

Jazz Lab is a co-curricular ensemble that meets Wednesday and Friday mornings before school each week from October through June. Advanced ensemble techniques and improvisation are learned through the study of literature from the great Big Bands and current music. The group is open to students by audition only and is limited to standard big band instrumentation one player per part.

Course Title: High School String Orchestra

Subject Area: Music

Student Grade Levels: 9-12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: This course is open to students who have successfully completed instruction at the Middle School level. All students must have finished Essential Elements Book 1 & 2, or have the permission of the director to register for this course.

Materials:

Various Orchestra Arrangements, Ensemble Repertoire, and String Solos by composers from different musical time periods

Instrument Specific Materials

Smart Music Computer Technology

Charms Music Website

Time Allotment per unit:

While there are no time restrictions placed on acquiring specific music skills, it is hoped that the majority of the students will reach benchmarks of achievement by the end of each grade level. In accordance with our district's strategic plan, music instruction is a personalized learning experience. Each musician progresses at his own rate of success. The following is a listing of anticipated exit levels of performance for each grade level.

Grade 9: 7 Major Scales (at least 1 two octaves), NYSSMA Level III Solo

Grade 10: 9 Major Scales (at least 3 two octaves), NYSSMA Level III or IV Solo

Grade 11: All 12 Major Scales (at least 5 two octaves), NYSSMA Level IV or V Solo, use of Vibrato Grade 12: All 12 Major Scales (at least 7 two octaves), NYSSMA Level V or VI Solo, use of vibrato.

Methods of Study:

This course will be built on ensemble playing, lesson group playing, individual solo playing, written evaluations, as well as performances outside of the school day. Written assignments will reinforce musical concepts learned through a performance medium. Each semester, students will be assessed individually on an assigned piece of music.

Assessment Plan:

The final grade will be an average of the lesson grade (½ weight) and the rehearsal grade (½ weight). Infraction and extra credit points are further explained in the Orchestra Handbook. Written workbook evaluations will be part of the student's rehearsal grade. A "playing test" will be part of student's lesson grade.

Course Title: Varsity Chorale

Subject Area: Music

Student Grade Level(s): 9-12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: This course is open to students who have participated in a curricular choral ensemble for at least 1 year during grades 6-8. Students must be able to match pitch and successfully repeat a tonal sequence of pitches.

Materials:

Various Choral Arrangements and Vocal Solos by composers from different musical time periods
Smart Music Computer Technology.

Time Allotment per Unit:

While there are no time restrictions placed on acquiring specific music skills, students are expected to reach benchmarks of achievement by the end of each grade level.
Grade 9: 95% accuracy in matching pitch and sequential melodic patterns in the range suited to the student's voice, sight-read melodies using Do, Re, Mi, Fa, Sol
Grade 10: Begin to develop vocal vibrato, sight-reading level III
Grade 11: Continue to develop control of tone and vibrato, sight-reading level IV
Grade 12: sight-reading level V. In accordance with our district's strategic plan, music instruction is a personalized learning experience. Each musician progresses at his or her own rate of success.

Methods of Study:

This course will be built on ensemble singing, individual solo singing, written evaluations, as well as performances outside of the school day. Each student will be given 1 group lesson per school cycle to focus on individual performance skills. Written assignments will reinforce musical concepts learned through a performance medium. Each semester, students will be assessed individually on an assigned piece of music.

The final grade will be an average of the lesson preparation (1/5 weight), repertoire performance assessments (1/5 weight), sight-reading assessments (1/5 weight), written assessments (1/5 weight) and attitude (1/5 weight).

Course Title: Vocal Lab

Subject Area: Music

Student Grade Level(s): 9-12

Length of Course: 40 weeks

Credit Assigned: .5 credit

Prerequisites: This course is open to students who wish to enroll in Varsity Chorale but are unable to fit it in their schedules. Students must have completed at least 1 year of chorus singing in grades 6- 12. Rehearsals will take place on Mondays during 9th period.

Materials:

Various Choral Arrangements and Vocal Solos by important composers from different musical time periods.

Smart Music Computer Technology.

Time Allotment per Unit:

While there are no time restrictions placed on acquiring specific music skills, students are expected to reach benchmarks of achievement by the end of each grade level. In accordance with our district's strategic plan, music instruction is a personalized learning experience. Each musician progresses at his or her own rate of success.

Methods of Study:

These lab lessons will be built on small ensemble singing, individual solo singing and written evaluations. Written assignments will reinforce musical concepts learned through a performance medium. At the end of each semester, students take the Vocal Readiness Assessment to determine individual skill level and readiness for Varsity Chorale.

Assessment Plan:

The final grade will be an average of the lesson preparation (1/5 weight), repertoire performance assessments (1/5 weight), music reading assessments (1/5 weight), written assessments (1/5 weight) and attitude (1/5 weight).

SCIENCE

Course Title: AP Biology

Subject Area: Science

Student Grade Level(s): grade 11 and 12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Mastery of Regents level Living Environment Exam (85% or higher) and a course average of 90% or higher. Successful completion of Regents level Chemistry with an 80% or higher Chemistry Regents exam score. Recommendation of the most recent Science instructor. Interview with AP instructor (May/June of prior academic year).

Notes: All Advanced Placement Biology candidates must commit to attending summer classes during June, July, and/or August and must sit for the Advanced Placement Biology Exam in May.

Overview:

The AP Biology course has been structured to meet all of the standards required by the College Board and is based on the Understanding by Design® (Wiggins and McTighe) model. The framework of the course specifies what students must know, be able to do, and understand, with a focus on the big ideas that encompass core principles, theories, and processes of the discipline. The framework also encourages instruction that prepares students for advanced work in STEM and life science–related majors. The big ideas serve as the foundation of the course and allow students to create meaningful connections among course concepts.

BIG IDEA 1: EVOLUTION The process of evolution drives the diversity and unity of life.

BIG IDEA 2: ENERGETICS Biological systems use energy and molecular building blocks to grow, reproduce, and maintain dynamic homeostasis.

BIG IDEA 3: INFORMATION STORAGE AND TRANSMISSION Living systems store, retrieve, transmit, and respond to information essential to life processes.

BIG IDEA 4: SYSTEMS INTERACTIONS Biological systems interact, and these systems and their interactions exhibit complex properties.

The 4 Big Ideas are covered in eight units:

Unit 1: Chemistry of Life, Unit 2: Cell Structure and Function, Unit 3: Cellular Energetics, Unit 4: Cell Communication and Cell Cycle, Unit 5: Heredity, Unit 6: Gene Expression and Regulation, Unit 7: Natural Selection and Unit 8: Ecology.

Goals & Objectives:

Students will be prepared for a successful completion of the College Board AP Examination in May; as well as possess a strong foundation for future success in their college Biology based courses. Students must maintain a course GPA of 70% or higher to remain enrolled in the course.

Materials:

The course follows the *AP Edition Campbell Biology in focus* – 3rd Edition; Authors: Lisa Urry, Michael Cain, Steven Wasserman, Peter Minorsky Pearson Education Inc. ©2019 and *The College Board's AP Biology Lab Manual*.

Time Allotment per unit:

Unit Name	**Number of weeks per unit**
Science Practices	1 week
Chemistry of Life	2 weeks
Cell Structure and Function	3 weeks
Cellular Energetics	4 weeks
Cell Communication and Cell Cycle	3 weeks
Heredity	3 weeks
Gene Expression and Regulation	4 weeks
Natural Selection	5 weeks
Ecology	4 weeks

Methods of Study:

Detailed PowerPoint presentations, which correspond to the Campbell Biology text, will be supplemented with inquiry activities, demonstrations, role-play activities, research projects, creative problem-solving activities, cooperative learning, discussion and traditional laboratory activities.

Assessment Plan:

Students will be evaluated based on quizzes, tests, activities and lab write-ups.

Course Title: AP Chemistry

Subject: Science

Grade levels: 11th and 12th grades

Length of course: 40 weeks

Credit: 1.0 credit

Prerequisites: completion of 3 college preparatory science AND math courses; recommendation completion or concurrently taking Regents Physics; Mandatory AP exam in May.

Overview:

The study of Chemistry at the college level requires the student to develop a logical train of thought as they determine how matter interacts, what are the reasons for the various properties we observe. In addition, we will investigate how scientists use this knowledge to produce new products. The course is taught using both lecture and lab experiments. The course may result in the student earning college credit. The course is taught as a college course in which the student takes the major role in the learning experience.

Goals:

The student will understand and master the material so that they may challenge the May AP exam.

Materials:

Brown, Lemay and Burnsten *Chemistry, The Central Science*

Publisher; Prentice Hall

Time allotment:

The following is meant as a guide:

Unit Name	Number of weeks per unit
Lab exercises	20 college level labs
Safety	1 day

Unit Name	Number of weeks per unit
Math and elemental identification	4 days
Atomic concepts	3 weeks
Chemical bonding	3 weeks
Phases of matter	3 weeks
Solution	3 weeks
Stoichiometry	3 weeks
Kinetics	3 weeks
Organic chemistry	2 weeks
Equilibrium	3 weeks
Acid bases	3 weeks
Nuclear	1 week
Electrochemistry	3 weeks
Descriptive chemistry	3 weeks

Methods of study:

The traditional methods of study supplemented by investigative labs. Exams given at the end of every unit some maybe take home.

Assessments:

The following is meant as a guide:

3 exams /quarter 85%

Lab exercises 15%

Course Title: AP Environmental Science

Subject Area: Science

Student Grade Level(s): 11-12

Length of Course: 40 weeks (AP exam in May)

Credit Assigned: 1.0 credit

Prerequisites: APES is open to students who have achieved mastery (85% or better) on the NYS Regents Exams in Earth Science and Living Environment. The student must have passed the NYS Regents exam in Chemistry (or be concurrently enrolled in Chemistry, but then must have AP

instructor permission). Due to the quantitative analysis required in the course, students should also have achieved mastery in algebra. **Mandatory AP exam in May.**

Overview:

The AP Environmental Science course 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.

Goals & Objectives:

There are two main objectives of this course. First students will become familiar with the scientific workings of the environment and its processes. This course will be taught using rigorous scientific principles and data. Second, students will become very knowledgeable about the environment of Akron, Western New York, the United States, and the World. This interdisciplinary college level course includes elements of biology, chemistry, the earth sciences, statistics, and economics, among others. It will include assigned readings, classroom lecture and discussion, outside research, and a lab

Materials:

Environmental Science for the AP, 4th Edition, Frieland.: In House Lab Manual

Topics of Study:

Units	Exam Weighting
Unit 1: The Living World: Ecosystems	**6–8%**
Unit 2: The Living World: Biodiversity	**6–8%**
Unit 3: Populations	**10–15%**
Unit 4: Earth Systems and Resources	**10–15%**
Unit 5: Land and Water Use	**10–15%**
Unit 6: Energy Resources and Consumption	**10–15%**
Unit 7: Atmospheric Pollution	**7–10%**
Unit 8: Aquatic and Terrestrial Pollution	**7–10%**
Unit 9: Global Change	**15–20%**

Methods of Study:

Notes via lecture

Hands on labs

Field studies

Course Title: AP Physics 1/Honors Regents Physics

Subject Area: Science

Student Grade Level(s): 12th grade and advanced 11th graders

Length of Course: Full year

Credit Assigned: 1.0 credit

Prerequisites: Algebra 1R (preferably at mastery level) or permission of instructor.

Pre/Co-requisites: Algebra 2/Trigonometry

Mandatory AP exam in May.

Overview: AP Physics 1 focuses on the big ideas typically included in the first semester of an algebra-based, introductory college-level physics sequence and provides students with enduring understandings to support future advanced course work in the science. In addition to topics covered in Regents Physics, students will also study rotational motion, angular momentum, and simple harmonic motion. A minimum of 25% of instructional time will be spent engaged in laboratory investigations to demonstrate foundational principles of physics. Students enrolled in this course will complete requirements for both the AP Physics 1 exam in May and Regents Physics exam in June. No prior physics experience is assumed/required. Mathematical proficiency in techniques of algebra and simple trigonometry are expected of all enrolled students.

Course Objectives: AP Physics 1 is an algebra-based, introductory college-level physics course covering the first semester of college physics. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion. Electric charge and electric force, DC circuits, and mechanical waves and sound/light are covered at the Regents Level.

Course Materials:

Textbook: Physics for Scientists and Engineers: A Strategic Approach (2nd edition)

AP Physics 1 workbook

Rulers, Protractors, scientific calculator

Assessments:

Unit tests (both multiple choice and free response) approximately every 2-3 weeks

Lab activities (every 1-2 weeks)

Physics Concept builders/HW (2-3x per week)

Course Title: Anatomy & Physiology I & II

Subject Area: Science

Student Grade Level(s): 11th – 12th grade

Length of Course: 2 semesters

Credit Assigned: 0.5 credit each

Prerequisite: Successful completion of Regents level Living Environment and a second Regents level science course (Earth Science, Chemistry or Physics).

Prerequisite/co-requisite: If student is not enrolled in or has not completed Regents Chemistry and/or Regents Physics, must have approval for enrollment from Anatomy teacher.

Overview:

This course provides a comprehensive study of the anatomy and physiology of the human body. This level of study will require students to understand and apply scientific concepts, principles, and theories as they pertain to the human body. This course is designed for college preparation, especially for biology and health career majors. Dissection of a cat and other appropriate organs are an integral part of the course and they will complement the course work. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

Course Objectives:

Upon the successful completion of this course, students will be able to:

- Explain how anatomy and physiology are related.
- Name the levels of structural organization that make up the human body and explain how they are related.
- Name the organ systems of the body and briefly state the major functions of each system.
- Explain the anatomical structure and location of all organs in each system.
- Define homeostasis and explain its importance.
- Use proper anatomical terminology to describe body direction, surfaces and body planes.
- Name the four major tissue types and explain how they differ structurally and functionally.
- Identify the subdivisions of the skeleton as axial or appendicular.
- Name the four main kinds of bones.
- Compare and contrast the structure and function of the three types of muscle tissue and where they are located in the body.
- Identify and indicate the functions of the major regions of the cerebral hemispheres, diencephalon, brain stem, and cerebellum on a human brain model or diagram.
- Compare pulmonary and systemic circuits.
- Describe the various body defenses.
- Describe the developmental aspects of all the body systems.
- Explain common diseases that affect the body systems

Course Materials:

Textbook: *Essentials of Human Anatomy & Physiology 9th edition* by Elaine N. Marieb

Workbook: *Anatomy & Physiology Coloring Workbook*

Assessments:

Multiple assessment methods will be utilized which include homework, quizzes, tests, case study investigations, student projects, research projects and laboratory assignments.

Course Title: Animal Behavior Course

Subject Area: Science

Student Grade Level(s): 10th- 12th grade

Length of Course: Half-year course

Credit Assigned: 0.5 credit

Prerequisite: Successful completion of Regents level Living Environment and a second Regents level science course (Earth Science, Chemistry or Physics).

Prerequisite/co-requisite: If student is not enrolled in or has not completed Regents Chemistry and/or Regents Physics, student must have approval for enrollment from the Animal Behavior teacher.

Overview:

Animals have patterns of behavior that help them survive and reproduce. Some of these behavior patterns are inherited and some are learned. You will recognize that humans, like other animals, have both types of behavior, and that these behavior patterns enable you to survive as well.

Goals & Objectives:

This course provides an introduction to the various types of behaviors animals can exhibit. Students will learn the adaptive value to these behaviors. We will learn about specific companion animals and the behaviors they exhibit both in nature and in the presence of humans.

Students are expected to take notes during lecture, complete homework and laboratory experiments on time. Students can expect to take several assessments such as quizzes and tests as well as successfully complete a behavior observation project. The final exam will be 20% of the overall grade for the course.

Course Title: Astronomy

Subject Area: Science

Student Grade Level(s): 11th - 12th grade

Length of Course: 1 year

Credit Assigned: 1.0 credit

Prerequisite: Successful completion of physical science course (Earth Science Prep, Regents Earth Science, Chemistry, or Physics) and Algebra.

Overview:

Astronomy is an elective course which provides a broad survey of the field of astronomy. Students are expected to take an active role during class time. The course is designed to have a minimum of mathematical investigation and to be accessible to a diverse population. This course is easily differentiated for students with a variety of educational needs. Students will experience lecture-tutorials, peer-instruction, and other learner-centered models during both class and lab time.

This course will provide the student with an introduction to the concepts of modern astronomy, the origin and history of the Universe and the formation of the Earth and the solar system. Students will compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action. Cultural history and relevance is emphasized in the sections on observational astronomy and astronomy and society.

Goals & Objectives:

Successful completion of the course and complete final project or final exam.

Materials:

Course materials are provided by the teacher.

Units of Study:

Topic 1 Studying Space

Topic 2 Stars, Galaxies, and The Universe

Topic 3 Formation of the Solar System

Topic 4 A Family of Planets

Topic 5 Exploring Space

Method of Study:

Lecture, Problem solving tasks, inquiry activities, computer tutorials, data analysis, cooperative learning, and engineering challenge tasks.

Assessments:

Tests, quizzes, projects, labs, class participation

Course Title: Chemistry

Subject: Science

Grade Levels: 10th-12th graders or departmental permission

Length of Course: 40 weeks

Credit: 1.0 credit

Prerequisites: Completion of minimum of 1 Regents level science AND co-registration in geometry.

Overview:

The study of Chemistry at a college preparatory level requires the student to develop a logical train of thought as they determine how matter interacts, what are the reasons for the various properties we observe. In addition, we will investigate how scientists use this knowledge to produce new products. The course is taught using both lecture and lab experiments. A full year chemistry course should be considered a requirement for any student considering continued education/career advancement in the following fields: Science, Engineering, Medical fields, nutrition, geology, environmental fields, or pharmacy.

Goals & Objectives:

The student will understand and master the material required to pass the NYS Regents Exam.

Materials:

Chemistry Connections to our Changing World, authors Lemay, Beall, Robblee and Brower, publisher Prentice Hall

Physical Setting Chemistry, author Patrick Kavanah, publisher Prentice Hall

Time Allotment:

The following is meant as a guide:

Unit Name	Number of Weeks per Unit
Lab Exercises	1750 minutes
Safety	1 week
Math and Lab Skills	2 weeks
Atomic Concepts	4 weeks
Periodic Table	3 weeks
Moles & Stoichiometry	4 weeks
Chemical Bonding	3 weeks
Physical Behavior	3 weeks
Kinetics	3 weeks
Organic Chemistry	3 weeks
Redox	4 weeks
Acid Bases	4 weeks
Nuclear-	3 weeks

Methods of Study:

The traditional methods of study supplemented by investigative labs.

Assessments:

The following is meant as a guide:

3 exams /quarter 60%

Lab exercises 20%

Homework: 20%

Course Title: Earth Science

Subject Area: Science

Student Grade Level(s): 10 (Exception are accelerated students.)

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Regent's Living Environment

Overview:

During the course of the year, we will be studying various aspects of Earth Science in accordance with New York State's Regents curriculum. Throughout this course we will be exploring a wide variety of topics including Geology, Astronomy and Meteorology.

Goals & Objectives:

Satisfactory completion of the course and pass the NYS Regents Exam.

Materials {Include title & Author of Text(s)}:

Prentice Hall's *New York State Brief Review in Earth Science*

In House Lab Manual

Time Allotment per unit:

Unit Name	Number of weeks per unit
Intro to earth Science	5 weeks
Earth Materials (Rocks & Minerals)	5 weeks
Weathering & Erosion	5 weeks
Plate Tectonics (Earthquakes & Volcanoes)	6 weeks
Geological History (Radioactive dating & Dinosaurs)	5 weeks
Meteorology	6 weeks
Astronomy	6 weeks

Methods of Study:

Class lecture, chapter quizzes, unit tests, laboratory exercises (min 1200 minutes).

Assessment Plan:

Variable depending on individual teacher.

Regent's exam in June.

Course Title: General Science

Subject Area: Science

Student Grade Level(s): 10th Grade

Length of Course: 40 weeks

Credit Assigned: 1.0 science credit

Prerequisites: Successful completion of Regents Living Environment

Overview:

This course is designed for students who struggled with Living Environment or need a slower pace. This course is an Earth Science based course which will prepare students to take Regents Earth Science the following year. Throughout this course we will be exploring a wide variety of topics including Geology, Astronomy and Meteorology.

Goals & Objectives:

Satisfactory completion of the course and pass a final exam

Materials:

Earth and Space iScience

Earth Science Reference Tables Workbook

Units of Study:

- Intro to Earth Science
- Rocks and Minerals
- Weathering and Erosion
- Plate Tectonics
- Geologic History
- Meteorology
- Astronomy

Methods of Study:

Various methods of study will be used such as lecture, hands-on activities, laboratory experiments, and some on-line activities.

Assessment Plan:

Various forms of assessments are used throughout the course such as, homework, quizzes, tests, debates, role-play assignments, student projects and demonstration of skills.

Course Title: Living Environment

Subject Area: Science

Student Grade Level(s): 9th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Successful completion of 8th grade science.

Overview:

The study of the Living Environment at the college preparatory level requires the students to understand and apply scientific concepts, principles, and theories pertaining to the physical setting and the living environment. Students should be able to recognize the historical development of ideas in science.

Goals & Objectives:

The Living Environment Course is based on the New York State standards, which include the following:

Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing and creative process.

Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.

The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into natural phenomena.

Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Living things are both similar to and different from each other and from nonliving things.

Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.

Individual organisms and species change over time.

The continuity of life is sustained through reproduction and development.

Organisms maintain a dynamic equilibrium that sustains life.

Plants and animals depend on each other and their physical environment.

Human decisions and activities have had a profound impact on the physical and living environment.

Follows safety rules in the laboratory.

Materials (Include title & Author of Text{s}):

Biology; Author Stephen Nowicki; Houghton Mifflin Harcourt 2017

Time Allotment per unit:

The following is meant as a guide:

Unit Name	**Number of weeks per unit**
Unit 1 The Nature of Life	4 weeks
Unit 2 Ecology	8 weeks
Unit 3 Cells	4 to 6 weeks
Unit 4 Genetics	8 weeks
Unit 5 Evolution	4 to 6 weeks
Unit 6 The Human Body	8 weeks

Methods of Study:

Various methods of study are utilized in the course that includes lecture, hands-on activities, laboratory experiments and on-line activities.

Assessment Plan:

Multiple assessment methods are utilized which include homework, role-playing, quizzes, student projects, research projects, laboratory assignments, tests and a final Regents exam.

Course Title: Physical Science

Subject Area: Science

Student Grade Levels: 11th and 12th graders

Length of Course: 40 Weeks

Credit: 1.0 credit

Prerequisites: Two (2) Laboratory Course credits, plus Algebra

Overview:

This course introduces the general principles of physics and chemistry. Topics will include measurement, motion, Newton's laws of motion, momentum, energy, work, power, heat, thermodynamics, waves, sound light, electricity, magnetism, and chemical principles.

This course is for the average student whose interests and goals may be different from those who take Regents Physics and/or Regents Chemistry courses. Extensive lab work, student-centered activities, real life applications, utilizing the scientific method and the process of science will be the focus throughout the course. Chemistry is the focus for the first half of the year with an emphasis on Physics during the second half of the year.

Upon completion, students should be able to demonstrate an understanding of the physical environment and be able to apply the scientific principles to observations experienced in the real world.

Major topics covered in this course are:

- Measurement
- Classification and Separation of Mixtures
- Atomic Structure and the Periodic Table
- Chemical and Physical Properties
- Chemical Reactions
- Heat and Thermodynamics
- Energy and Alternative Technologies
- Electricity and Magnetism
- Waves: Sound, Light and Optics
- Forces and Projectiles

Assessments:

Multiple assessment methods will be utilized which include homework, quizzes, tests, case study investigations, student projects, research projects and laboratory assignments

Course Title: Physics

Subject Area: Science

Student Grade Level(s): 12th grade and advanced 11th graders

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Successful completion of two years of college prep math (Mastery on Algebra exam highly recommended) and concurrent registration in Algebra 2/Trigonometry. Successful completion of one other Regent's level science course. Chemistry is NOT a prerequisite to taking and being successful in Regents Physics.

Overview:

The study of Physics at a college preparatory level requires students to develop an understanding of the physical world. Students use data collection, algebra, and logic to analyze physical systems in mechanics, electricity, and light waves. In addition, the standard model of matter (quarks) is investigated to understand modern research aims of particle physics. A full year physics course should be considered a requirement for any student considering continued education/career advancement in the following fields: Science, Engineering, Medical fields, nanotechnology, optics, physical therapy, technical writing, computer science, or astronomy.

Goals & Objectives:

The student will understand and master the material required to pass the NYS Regents Exam in Physics.

Materials:

Physics: Principles and Problems, Zitewitz, Paul, Glencoe/McGraw-Hill, 1999

Brief Review for New York, Physics: The Physical Setting, Cook, Bernadine, Prentice Hall, 2006

Time Allotment per unit:

The following is meant as a guide.

Unit Name	**Number of weeks per unit**
Lab Minutes	1750 minutes
Kinematics: descriptions of motion	5 weeks
Unit Name	**Number of weeks per unit**
Vectors and Projectiles	3 weeks
Newton's laws: Forces, momentum, equilibrium	5 weeks
Energy: forms of energy and its conservation	4 weeks
Static Electricity: Static charges, polarization, voltage, capacitance	4 weeks
Current Electricity: Ohm's law, Series and Parallel circuits	4 weeks
Waves, Sound, & Light: Music, colors, interference, refraction	6 weeks
Modern Physics: Quarks, dual nature of light, and atomic models	4 weeks

Methods of Study:

Lecture, Problem solving tasks, inquiry activities, computer tutorials, use of science probeware, data analysis, cooperative learning, and engineering challenge tasks.

Assessment Plan:

Tests, quizzes, and projects (50%)

Homework (20%)

Lab Activities (20%)

Class Participation/Teacher Evaluation (10%)

Course Title: Zoology Course

Subject Area: Science

Student Grade Level(s): 10th- 12th grade

Length of Course: Half-year course

Credit Assigned: 0.5 credit

Prerequisite: Successful completion of Regents level Living Environment and a second Regents level science course (Earth Science, Chemistry or Physics).

Prerequisite/co-requisite: If student is not enrolled in or has not completed Regents Chemistry and/or Regents Physics, must have approval for enrollment from Zoology teacher.

Overview:

Students will survey the animal kingdom with an emphasis on diversity, anatomy, evolutionary relationships, functional adaptations, and environmental relationships.

Goals & Objectives:

This course provides a hands-on way to learn about the wonderful world of animals. In this class, you will study the classification system called Taxonomy. Then you will move through the taxa starting with Porifera in the Kingdom Animalia. In Animalia, you will study all the major Invertebrate and Vertebrate phyla including Chordata (vertebrate animals), Mullusca (clams, octopus, snails, squid), Platyminthes (flat worms like planarian), Nematodes (round worms such as pinworms and hookworms), Cnidarians (jellyfish and corals), Porifera (sponges) and others.

After studying each phylum with class notes and diagrams, you then dissect one or more animals from that phylum. Dissections include sharks, frogs, grasshoppers, squid, clams, earthworms, rats, clams, perch, sparrows, crayfish, and fetal pigs.

Students are expected to complete coloring book reading assignments and dissections on time. Grades are based on lab dissections, multiple tests including a midterm and final exam (20% of overall grade).

The following criteria will be used for placement into Honors and/or AP Social Studies:

- Recommendation of Teacher
- Course average of 88 or higher
- Final exam grade of 85 or higher

SOCIAL STUDIES

The following criteria will be used for placement into Honors and/or AP Social Studies:

1. Recommendation of Teacher
2. Course average of 88 or higher
3. Final exam grade of 85 or higher

Course Title: Advanced Placement United States History, (A.P.U.S.H.)

Subject Area: Social Studies

Student Grade Level(s): 11th and 12th grade

Length of Course: 40 weeks

Credit Assigned: 1.0 credit*

Prerequisites: Completion of Global Studies and recommendations and approval from the student's Global Studies instructor, guidance counselor, and the A.P. instructor.

Mandatory AP exam in May, Regent's exam in June. An AP examination is required for this course. Students may choose to take the course for college credit. The cost of this college course is approximately $240 plus a $25 non-refundable registration fee and college credit will be awarded by NU. Students may also be eligible for a fee waiver. Please contact student support for more information.

Overview:

This course both meets the New York State Board of Regents requirement for United States History and is approved by the College Board for the study of Advanced Placement United States History. This course covers United States History from pre-colonial times to the present.

*This course is assigned 1.0 credit for Akron, but may additionally be taken for 3 hours of transferable credit to Hilbert College for students in grades 11 and 12.

Goals & Objectives:

This course breaks American history down to eight sequential units. Each unit is built around the four historical thinking skills: Chronological Reasoning, Comparison and Contextualization, Crafting historical arguments from historical evidence, and Historical interpretation and synthesis. These skills are used to examine the eight historical periods based on seven different thematic learning objectives: American Identity, Work exchange and technology in America, the peopling of America,

Politicas and power, America in the world, Environment & geography-(physical and human), in America, and Ideas beliefs and culture.

Materials:

The primary textbook is *The American Pageant*, 13th Ed. Bailey. Cohen and Kennedy. Houghton Mifflin, New York, 2006.

The secondary text is *A People's History of America*, Zinn, Howard. Harper Collins, 1999, [select chapters].

A review book will be determined by the choice of the students

NOTE: The use of these resources is augmented by a large variety of historical readings and opinions.

Time Allotment per unit:

The eight units are broken down into forty-two plus chapters. The AP Exam is usually given in the first or second week in May, six weeks before the New York State Regents exam. Therefore, the first unit is completed over the summer, attendance is mandatory, but scheduling is flexible. Each of the remaining units is covered in roughly four to five weeks. The remaining two weeks are review and preparation for the A.P. examination. Additional review may take place outside of the regular class day. After completion of the A.P exam, a final unit on Constitution and law is studied in preparation for the Regents Examination.

Methods of Study:

ABCD Approach

The Syllabus will be taught using the following ABCD pattern. This schedule is independent of the school week. This four-day pattern assures all students will know what will transpire that day and the next. A sample of the four-day sequence is outlined below.

Day A: is typically a formal lecture on a specific chapter[s].Day B: is a short multiple-choice exam based on old AP questions. All text reading should be complete before class. Students will complete chapter questions before class. Students have the option to submit extra credit outlines. All tests are as review and instructional material. Day C: The purpose of this day is to develop historical skills such as historical reading, MLA writing/research, note-taking techniques, research skills, study skills such as test preparation, etc. Day D: Is devoted to critical issues in a seminar format. All interpretive

reading should be completed before class. The seminar is an interactive format where students “debate" a historic issue based on primary and secondary sources. These are also built around the historic thinking skills

Assessment Plan:

Student assessment will be based on the completion of: Two major research projects, Rigorous chapter tests, thematic essays, Document based essay, and a variety of homework assignments.

Course Title: Economics

Subject Area: Social Studies

Student Grade Level(s): 12

Length of Course: 20 Weeks

Credit Assigned: 0.5 credit

Prerequisites: Successful completion of Global Studies 9 & 10 and US History

Overview:

According to the New York State Education Departments Economics Curriculum Guide, “Students will examine their individual responsibility for managing their personal finances. Students will analyze the role of supply and demand in determining the prices individuals and businesses face in the product and factor markets, and the global nature of these markets. Students will study changes to the workforce in the United States, and the role of entrepreneurs in our economy, as well as the effects of globalization. Students will explore the challenges facing the United States free market economy in a global environment and various policy-making opportunities available to the government to address these challenges.”

Goals & Objectives:

The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision-making, and the interdependence of economies and economic systems throughout the world.

Materials:

JA Economics, Various Authors and Contributors, Copyright, July 2000.

Themes:

Based on the NYS Social Studies Framework and Curriculum, the following themes will be presented in various units over the semester course.

INDIVIDUAL RESPONSIBILITY AND THE ECONOMY

INDIVIDUALS AND BUSINESSES IN THE PRODUCT AND FACTOR MARKETS

THE IMPACT OF AMERICAN CAPITALISM IN A GLOBAL ECONOMY

THE TOOLS OF ECONOMIC POLICY IN A GLOBAL ECONOMY

Methods of Study:

This course will be built on student reading, case study activities, teacher overview lectures, student individual and small group presentations, as well as individual research projects. Written assignments will be used to assess student learning and to broaden their understanding of economic concepts.

Assessment Plan:

Daily class participation/punctual preparations

Written Assignments

Notes and Record Keeping

Unit Tests and or quizzes

Possible Individual written project

Possible Final Exam or Final project which may include objective questions in a multiple-choice format as well as a written response section that assesses student understanding of economic concepts.

Final Grade: 100%

80% for quarterly grades

20% for final exam or project

Course Title: Global History and Geography 9
Global History and Geography 9 Honors

Subject Area: Social Studies

Student Grade Level(s): 9 and 9 Honors

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Teacher recommendation for Global 9 Honors

Overview:

Global History and Geography 9 is the prerequisite to global 10 culminating in a Regents examination at the end of 10th grade testing historical thinking skills and content from Global 10. In this course, students will learn about the history and culture of our world beginning from ancient times through the age of exploration and colonization (approximately 1600 AD). Students will also learn to use historical thinking skills and prepare for the Global 10 Regents examination.

Goals & Objectives:

- Students will develop historical analysis skills through the investigation of competing interpretations of historical periods.

- Students will be prepared for the Global 10 regents examination including but not limited to practice of stimulus based multiple choice questions, document analysis with part 2 questions and the enduring issues essay task.

- Students will examine geographical themes of the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of geography.

- Students will learn the locations and significance of key geographical features, understand the impact of natural resources on the development of a regions, the forces of cooperation and conflict among people influence the division and control of the Earth's surface, explain how technological change affects people, places, and regions.

- Students will utilize critical thinking skills in the study of economic concepts, economic decision-making and interdependence of economic systems.

- Students will examine specific economic systems of various cultures and periods, such as mercantilism, and the impact those systems had and continue to have on the course of history.

- Students will examine and understand the purposes of government, varying political systems around the world, concepts of power, authority and law.

➢ Students will examine cultures and civilizations with a focus on their political systems such as monarchy, democracy, oligarchy, aristocracy tyranny or dictatorships (i.e., Athens, Roman Empire, The Middle Ages, etc.).

Materials (Include title & Author of Text{s}):

Ancient World History, McDougal Littell

Course materials located in Schoology

Methods of Study:

This course will be facilitated using a variety of instructional techniques, such as the Socratic Method, lecture, small group work, station activities, student-driven instruction, etc. Discussion and written work will be aimed at understanding key historical concepts that are seen repeatedly throughout history. In addition, written work will require students to 1) express their understanding of the larger historical concepts and 2) be able to weave relevant historical details to further enrich their writing.

Assessment Plan:

Daily participation

Homework assignments

Quizzes

Unit tests

Essay tasks

Final exam (modeled after the Regents exam in Global History and Geography 10)

Course Title: Global History and Geography 10 R
Global History and Geography 10 Honors *

Overview:

This course is mandated by the New York State Board of Regents. It picks up time-wise where Global 9 should leave off (the 1600s). Some of the major topics/units covered include The Enlightenment, Revolutions in France and Latin America, the Agricultural and Industrial Revolutions, Nationalism, Imperialism, the rise of communism, the fall of communism, World Wars 1 and 2, and a few others. Within those units various economic, social, and political science topics, as well as current events, will be covered. Primary source documents will be included throughout the year on some HW

assignments, unit tests, some vocab quizzes, and during the review period to prepare for the Enduring Issues Essay. (*Global 10 HONORS has Primary Source document packets for most units.) Review for the June Regents will occur in-class. All students will be required to take and pass the Global 10 Regents exam. Tests comprise 55% of the grade, followed by weekly vocab quizzes comprising 35% of the grade, and lastly homework assignments make up 10% of the grade. As always, attendance is important.

Some Goals and Objectives for All Students:

1. Learning how to evaluate and analyze historical documents and reading passages.
2. Improving essay-writing skills.
3. Improving critical thinking skills.
4. Expanding their knowledge of content-based vocabulary.
5. Improving an ability to compare and contrast events, historical figures, motives, causes/effects, similarities/differences of those events and historical figures.
6. Developing a better understanding of economic, social, and political systems of societies past and present.

Materials:

World History (The Modern Era) Interactive; Ellis and Esler; Savvas Learning Company 2022

Methods of Study:

This course is rigorous and pushes students into higher-level thinking and challenging forms of assessment. Unit Tests and Quizzes are fill-ins only – no multiple choice, word banks, or open-book/note assessments (unless modified by Special Education teachers). Various document exercises to help prepare for the Enduring Issue Essay will be done during the year, with a heavier focus in the last quarter. Notes will be hand-written by students which will be the basis for the unit tests throughout the year.

Course Title: Native American Studies (through media)

Core Area: Social Studies

Student Grade Level: Grade 11 - 12

Academic level: Average

Length of Course: 20 weeks

Credit Assigned: 0.5

Prerequisite: None.

Overview:

Using Native Americans as a focus group, students will explore films portraying various time periods, from pre-European contact to present day issues and concerns within Native American communities. A variety of media will be using including documentaries, interviews, independent films, as well as Hollywood productions.

Goals and Objectives:

The course is designed for students to develop an understanding of Native American communities from across the North America. The course will explore cultural nuances, history and contemporary perceptions of Native peoples. The students will better understand and reflect on historical abuses and misconceptions associated with Native American communities.

Materials:

All materials will be provided by the teacher.

Methods of Study:

The students will viewing documentaries films and other forms of media throughout the course. Students will be asked to reflect and evaluate various topics of historical events that pertain to Native American people in each film. Four current event assignments will be completed throughout the course. At the end of the course students will be asked to choose a topic that is important to Native American people and make a short film about that topic as their final course project.

Assessment Plan:

- Four current event assignments
- Tests/Reflection assignments per film
- Participation assignment per film
- Movie Final Project at the of the marking period

Course Title: Participation in Government

Subject Area: Social Studies

Student Grade Level(s): grade 12

Length of Course: 20 weeks

Credit Assigned: .5 credit

Prerequisites: Successful completion of Global Studies 9 & 10 and US History

Overview:

The objective of this course is to provide students with opportunities to unpack the many functions of government as they analyze their roles as active participants in a diverse society. It provides insight as to the rights and duties we have as citizens, as well as the function of government and the impact that this function has on our lives. Through in-class and community-based activities, we will explore the role of media, the three branches of government, the electoral process, public policies, etc. Bodies of government exist at multiple levels within our society: locally, within indigenous nations, state, and federal. Upon entering grade 12, it is important that students develop a thorough understanding of how these numerous government bodies are meant to work for us. This is fostered through student debate, discussion, examination of primary and secondary sources, and analysis of resources related to the individual experience and to the experiences of communities at differing scales. These systems have been established to work for our collective interest, and we as citizens need to apply knowledge and education in order to make educated and responsible decisions that benefit our society.

Themes:

Foundations of the Democratic Process
American Democracy
Media
Information Consumption
Bias
National Security
Ethics
Law
Diplomacy
Foreign Policy
Judicial System and Justice
The Constitution of the United States
Debate

Conflict

Nationalism

Public Policy

Citizenship

Materials:

Chromebook and charger

1 - 2 subject three ring notebook with pockets/dividers, 2-inch rings

Writing utensils & a highlighter

Methods of Study:

Facilitation of the course will require students to be present, active participants in lessons and activities throughout the course. The curriculum utilizes lecture, discussion, debate, collaborative enrichment activities, research-based extended responses, and summative assessments

Assessments:

Daily Attendance

Current Event Analysis

Primary Source Analysis

Simulations

Research Reports

Unit Exams

Final Exam

Course Title: Psychology

Core Area: Social Studies

Student Grade Level: Grades 11 & 12 Elective

Academic level: Average

Length of Course: 20 weeks

Credit Assigned: 0.5*

Dual Enrollment with Hilbert College

Overview:

Psychology is a semester course offered as an elective at Akron High School. It is a great precursor for those wishing to take a course in college on abnormal psychology or psychology in general.

Psychology focuses on human behavior and possible motivations behind it using both current and past events. The course will introduce students to a wide variety of topics within the field of Psychology through engaging classroom discussions, readings that discuss research-based evidence gathered from case studies and experiments, and experiential learning. As a dual enrollment course with Hilbert College, students will be held to collegiate expectations.

*This course is assigned 0.5 credit for Akron, but may additionally be taken for 3 hours of transferable credit to Hilbert Colleges for students in grades 11 and 12.

Goals/Objectives:

Students will be expected to engage in frequent circle discussions that create a forum of debate and discussion around major topics within the field of Psychology. The foundation of these discussions will be articles based on research and accepted theories within Psychology. Additionally, students will be able to articulate the cornerstones of major themes in the field of psychology while also explaining the variety of perspectives on those certain topics. Finally, students will engage in critical and abstract thinking in order to apply theories, concepts and perspectives to real world situations.

Major Themes of Study:

Consciousness
Relationships, Dating, and Cheating
Stereotypes and Racism
Hoarders
Substance Abuse Interventions
Ethics
Psychological Disorders
Cults
Career Fields in Psychology
Contemporary Perspectives on Psychology
Consciousness, Sensation and Perception
Learning and Cognition

Human Development

Personality

Psychological Disorders

Social Behavior and Social Psychology

Course Procedures:

Students are expected to attend all classes with required materials- notebook and writing utensils, as well as any materials specified in the course syllabus for project work.

Students will receive a syllabus.

Students will receive rubrics for each project or activity.

Students are expected to read the chapters assigned.

Students must make up any missed work within accordance to the timeframe established.

Assessment Plan:

Daily class participation

Written assignments

Chapter Tests/projects

End of the Semester project or final assessment

Textbook:

Psychology: Principals in Practice by Spencer A. Rathus

Course Title: US History and Government

Subject Area: Social Studies

Student Grade Level(s): 11

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisites: Global History and Geography 9 and Global History and Geography 10

Overview:

United States history is the history of a great experiment in representative democracy. It is a Regents course culminating in a Regents examination at the end of the year. In this course, students will learn

about the history and culture of the United States beginning from exploration through the present. We will also discuss current events as they relate to the history we study.

Goals & Objectives:

- Students will learn about the structure and function of governments and to learn how to take on their roles as citizens.
- Students should understand those basic principles and the cultural heritage that support our democracy so that they can become informed, committed participants in our democracy.

This core curriculum lists examples that describe how individuals and groups throughout history have challenged and influenced public policy and constitutional change. These examples and this course of study should help students understand how ordinary citizens and groups of people interacted with lawmakers and policy makers and made a difference.

Materials:

The Americans, McDougal-Littell

Time Allotment per unit:

This core curriculum is organized into seven historical units. Each unit lists the content; concepts and themes, and connections teachers should use to organize classroom instruction and plan for assessment. The State Regents examination for United States History and Government will be based on the content column in this core curriculum. The following concepts and themes in United States history are also emphasized in this curriculum:

Change

Citizenship

Civic Values

Constitutional Principles

Culture and Intellectual Life

Diversity

Economic Systems

Environment

Factors of Production

Foreign Policy

Government

Human Systems

Immigration and Migration

Individuals, Groups, Institutions

Interdependence

Physical Systems

Places and Regions

Reform Movements

Presidential Decisions and Actions

Science and Technology

Since this curriculum emphasizes government and basic constitutional principles, students should understand the importance of key United States Supreme Court decisions. Key decisions will be covered.

Methods of Study:

This course will be facilitated using a variety of instructional techniques, such as the Socratic Method, lecture, small group work, station activities, student-driven instruction, etc. Discussion and written work will be aimed at understanding key historical concepts that are seen repeatedly throughout history. In addition, written work will require students to 1) express their understanding of the larger historical concepts and 2) be able to weave relevant historical details to further enrich their writing.

Assessment will consist of some or all of the following:

Daily participation

Weekly quizzes

Unit tests

Writing workshops (timed)

Mid-term exam

TECHNOLOGY

Course Title: Basic Electricity and Electronics

Subject Area: Technology Education

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credits

Prerequisites: 1 year of HS Science - Required

Drawing & Design for Production - Recommended

Overview:

This course will give the student a general review of the field of electricity. It will include all aspects of direct and alternative current: the concepts of conductors, insulating materials, resistance, voltage, current, Ohm's Law, energy, work and power, measuring instruments and techniques. Subject content also will include alternate energy sources, residential wiring, and computer-generated schematic drawing. Students will learn about electronic components and circuits through the use of breadboards and soldering printed circuit boards.

Goals & Objectives:

Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

Materials {Include title & Author of Text(s}:

Electricity and Electronics Technology, Buban, Peter, Marshal Schmitt, and Charles G. Carter, Jr, eds. 7th ed. New York: Glencoe/ McGraw-Hill, 1999.

Mr. Circuit Electronic Circuit Labs

Time Allotment per unit:

Unit Name	Number of weeks per Units
Alternate Sources of Electricity	3 weeks
Generation & Transmission, Ohm's Law	3 weeks
Electronic Circuits with Solderless Breadboards & Schematic Drawings	4 weeks
Soldered Electronic Circuits	3 weeks
Electronic Circuit Design & Prototyping	3 weeks
Residential Wiring (3-way circuit)	3 weeks

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands- on challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills.

Assessment Plan:

Student understanding and participation will be evaluated based on the use of rubrics for projects and experiments. Other formative assessments will be given in the form of a quiz.

Course Title: CAD (with Inventor)

Subject Area: Technology

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credits

Prerequisite: Drawing and Design for Production - *Required*

Overview:

The goals of the course are for each student to develop their spatial visualization skill and sketching ability, and their ability to create and understand engineering drawings using standard views and drawing practices. Students will be using Inventor. This is a parametric feature-based solid modeling system that can be used to produce computer models of parts and assemblies as well as detailed

engineering drawings. Employers are looking for prospects that are trained and competent with 3D software applications. Inventor is the standard in 3D product design, featuring industry-leading productivity tools that promote best practices in design while ensuring compliance with industry and company standards. Students will attain a skill in this course that can be used directly in industry.

Goals & Objectives:

- Visualization and Pictorial Sketching
  - Use sketching to create and communicate design concepts and solutions
  - Be able to sketch quickly and accurately
  - Clearly control and represent mental images
  - Sketch pictorial drawings of real and imagined objects and scenes
  - Construct pictorial layouts of multi-view drawings
- Multi-view Drawings
  - Sketch multi-view drawings of real and imagined objects
  - Construct multi-view drawings from pictorial sketches
  - Create multi-view drawings from a CAD model
  - Identify inconsistencies between pictorial and multi-view drawings of the same part
  - Check multi-view drawings for internal errors (missing lines, etc.)
- Section Views
  - Visualize and sketch section views according to accepted standards and practice
  - Create section views of a CAD model
- Auxiliary Views
  - Visualize and sketch auxiliary views according to accepted standards and practice
  - Create auxiliary views of a CAD model
- Dimensioning and Tolerances
  - Layout a dimensioning scheme using accepted standards and practice
  - Check a dimensioned drawing for errors such as missing or inconsistent dimensions
  - Specify tolerances based on manufacturing and functional requirements
  - Create a fully detailed drawing of a (simple) CAD model
- 3D Modeling
  - Understand the different approaches to 3D modeling
  - Achieve junior level competency for part creation with Inventor
  - Be able to choose an appropriate modeling scheme based on design intent

    - Understand how to apply constraints in a parametric model to capture and implement a desired design intent
- Assembly Modeling
    - Create a simple assembly model using Inventor
    - Understand and be able to implement appropriate assembly constraints
    - Create and modify views for design communication (exploded, cutaway, etc.)
- Working Drawings
    - Create, read, and interpret detailed working drawings
    - Understand aspects of title blocks
    - Be able to check a drawing for errors
    - Generate a complete set of working drawings for simple parts and assemblies
- Rendering and Visualization (Time permitting)
    - Creation of photo-realistic rendering of simple parts and assemblies
    - Understand aspects of color, lighting, texture
    - Generation of animation of simple mechanisms

Materials:

Inventor (3D Modeling software), Adobe Illustrator, Adobe Photoshop, Stratasys 3D Printer, Epiloge Laser

Methods of Study:

Students focus on the design and problem-solving processes. The student will choose from a large number of design briefs to work on. The course emphasizes the decision-making process by requiring students to examine past solutions, learn technical drawing processes, incorporate the processes into computer aided design applications, and become critically active towards evaluating works of their own and others.

Assessment Plan:

Student understanding and participation will be evaluated based on portfolio reviews, quizzes and the use of rubrics for projects and design brief challenges.

Course Title: Civil Engineering & Architecture

Subject Area: Technology

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credits

Prerequisite: Drawing and Design for Production – *Required*

Overview:

Students will explore many areas of engineering, with specific emphasis on civil engineering and architectural drawing. Civil engineering involves the exploration, research, planning, analysis, design, construction, and operation of facilities essential to modern life. Civil engineering systems include buildings, bridges, pipelines, roadways, spacecraft, water supply and distribution networks, and waste management facilities. Students will experience planning, investigation, design, and performance monitoring of projects that involve consideration of technical, governmental, financial, and social elements. Architectural Drawing is an integral component of this course which includes the study of design and drafting related to building construction. Topics include culture and history, tools and techniques, preparation of site, and floor, elevation, section, and perspective drawings.

Goals & Objectives:

Students will gain an understanding of the following areas of study:

- *Architectural Drawing: the study of design and drafting related to building construction. Topics include culture and history, tools and techniques, preparation of site, and floor, elevation, section, and perspective drawings.
- *Structural Engineering: design and analyze different types of structural systems, including but not limited to buildings and bridges.
- *Environmental Engineering: address diverse problems such as drinking water supply, air pollution control, carbon management and global warming, energy, hazardous waste management, storm water and wastewater management, solid waste disposal, public health, and ecosystem management.
- *Geotechnical Engineering: design foundations, ground improvement, slopes and embankments, retaining walls, dams, landfills, shoring, underpinning of structures, below-ground waste containment, soil clean-up, landfills, and wetland drainage systems.

Materials: Computers & Software: *Envisioneer 9.0*

Various hand tools, power tools, materials and technologies.

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands-on design challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills. Students are required to keep an "Engineering Design Notebook" for each challenge whereby documentation will be noted on their project's milestones & design process.

Assessment Plan:

Student understanding and participation will be evaluated based on portfolio reviews, quizzes and the use of rubrics for projects and design brief challenges.

Course Title: Computer Programming: Coding 1 & 2

Subject Area: Technology Education

Student Grade Level(s): 9-12

Length of Course: Half-year each course

Credit Assigned: 0.5 credit per course

Prerequisites: Algebra 1R or permission of instructor

Overview:

Every day, we use computers, smart phones, apps and so many means to communicate, do business, and function in our world. And what about entertainment – games and music. This is all the result of coding, the process of programming devices to do all the things we use every day. Learn the basic foundation of coding, make your programs, and advance your skills to a level where you create a product that meets the needs of a constantly changing world.

Goals and Objectives:

Students practice using a problem-solving process to address a series of puzzles, challenges, and real-world scenarios. Students learn how computers input, output, store, and process information to help humans solve problems. Students will apply the programming they learn to physical robots that will perform various tasks and complete challenges.

Materials: Chromebook/Desktop

Methods of Study: Project based learning, research, and demonstrations.

Assessment Plan: In each unit, students will be assessed on their ability to: create programs based on examples given, complete projects that run the way they were initially designed, and build/ program robots to complete various design challenges.

Course Title: Design and Drawing for Production (DDP)

Subject Area: Technology Education

Student Grade Level(s): 9-12

Length of Course: Full year – 40 weeks

Credit Assigned: 1 credit

Prerequisites: None

Overview:

This course will encourage visual problem solving, using a common graphic language to describe forms in the man-made environment. Students will be required to adapt their knowledge of the graphic language to the growing world of computer-aided drafting and design. Due to the junction of these two technical processes, students will be able to analyze, creatively design and critically evaluate common objects in their environment. This requires research for historical precedents, cultural references and future visions.

These two types of drawing forms are the vehicles for worldwide industrial communication and an integral step in the process toward product design. Other simulation techniques, such as model building, develop an ability to analyze and demonstrate an understanding of three-dimensional forms in the space. Application of these drawing and simulation techniques ultimately results in the manufacturing of products and construction of buildings.

Goals & Objectives:

Students will be able to select appropriate tools, materials and processes to manufacture a product. Students will organize and implement an innovative project, based on market research, which involves design, production, testing, marketing, and sales of a product or a service. They will

use a range of high- tech composite or synthetic materials to make a model of a product and explain their choice of material. To aid in this application students will have to consider the factors of various resources, ecological and environmental and determine their impacts on design and processing.

The application of design to the real world by linking to mass production methods is essential. Students will understand how the flow, processing and monitoring of materials are controlled in a manufacturing plant and information-processing systems provide inventory, tracking and quality control data. In order to understand manufacturing processes students will gain an understanding of how to draw a labeled system diagram which explains the performance of a system, and includes several subsystems and multiple feedback loops. Students will also explore new or emerging technologies and their various impacts on society.

Materials (Include title & Author of Text(s)):

Computers & Software: Inventor (3D Modeling software), Model Smart, Microsoft Office, Envisioneer 9.0.

Various hand tools, power tools, materials and technologies

Methods of Study:

DDP students focus on the design and problem-solving processes. The student will choose from a large number of design briefs to work on. The course emphasizes the decision-making process by requiring students to examine past solutions, learn technical drawing processes, incorporate the processes into computer aided design applications, and become critically active towards evaluating works of their own and others.

Assessment Plan:

Student understanding and participation will be evaluated based on, portfolio reviews, quizzes and the use of rubrics for projects and design brief challenges.

Course Title: Engineering Design

Subject Area: Technology Education

Student Grade Level(s): 10-12

Length of Course: Half year – 20 weeks

Credit Assigned: 0.5 credit

Prerequisites: Drawing and Design for Production - *Required*

Overview:

Engineering Design (ED) is a high school level course that is appropriate for 10th through 12th grade students who are interested in design and engineering. The major focus of the ED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. ED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

Goals & Objectives:

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. Topics include:

- Research Fields of Engineering
- Design Process: Students use the problems solving process to solve real-world problems and work in teams.
- Communication and Documentation: Students collect and categorize data, produce graphic representations, keep and engineer's notebook and make written and oral presentations.
- Engineering Systems: Students learn about the mechanical, electrical, fluid and pneumatic and control systems.
- Statics: Students learn about measurement, scalars and vectors, equilibrium, structural analysis, and strength of materials.
- Engineering Quality and Reliability: Students will use precision measurement tools to gather and apply statistics for quality and process control. Students will also learn about reliability, redundancy, risk analysis, factors of safety, and liability and ethics.

Materials {Include title & Author of Text(s)}:

Various web-based simulators and sources for research, *Inventor* (3D Modeling software), *Auto sketch* (CAD), *Model Smart*, *Microsoft Office*, *Adobe Visual Communicator*, *Envisioneer 3.0*, etc.

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands- on design challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills. Students are required to keep an "Engineering Design Notebook" for each challenge whereby documentation will be noted on their project's milestones & design process.

Assessment Plan:

Student understanding and participation will be evaluated based on the use of rubrics for projects and experiments. Other formative assessments will be given in the form of tests and quizzes.

Course Title: Library STEAM Studies

Subject Area: Technology

Student Grade Level(s): 9-12

Length of Course: 40 weeks

Credit Assigned: 1.0 credit

Prerequisite: Teacher interview and approval

Overview:

The Library STEAM Studies course is designed to familiarize students with the technology and responsibilities involved in management of a library media center maker space. The maker space consists of an area in the LMC designated for interest-driven learning and self-directed discovery through STEAM activities including but not limited to: creating with traditional art media, gaming and technology (from 3-D printing and robotics to coding) available to students throughout the school day. Responsibilities will involve learning the technology available to make space use, tracking supplies, and assisting maker space users when needed. Students will also be expected to assist with special events in the LMC (such as Chinese New Year, Poetry Month, etc.).

Goals and Objectives: STEAM Students are expected to gain proficiency in technology, as it is currently available in the makerspace and LMC and become familiar with the traditional media offered in order to assist peers. STEAM students will develop project management skills through assisting

with the preparation for and facilitation of large-scale events in the LMC and promoting makerspace activities.

Materials: STEAM LAB comprised of traditional art media, assorted technology and recyclable materials.

Methods of Study: Inquiry and Project Based Learning.

Assessment Plan: Grades will be based on a scale of 1-100 and achieved by demonstrating proficiency with available technology, conducting research for program development, testing new ideas and time/facility management.

Course Title: Media Production I & *II

Subject Area: Technology
Student Grade Level(s): 10-12
Length of Course: 20 weeks
Credit Assigned: .5 credit
Prerequisite for Media Production II: *Teacher approval required for Media Production II

Overview:
This course is designed to help students learn to engage in an ever-changing digital world. The curriculum will cover a wide range of topics including: video production, podcasting, storytelling/journalism, and graphic design. This course is cross-curricular and will supplement students in English Language Arts while building literacy, media, and technology skills that can be used throughout their education.

Additionally, as a class students will work together to produce journalism pieces for activities going on in the district which may include:

- Content about school events like homecoming, athletics, the musical, and spirit weeks
- District update videos to showcase the work going on throughout the schools
- Work in association with the Athletics Department
- Other student ideas or teacher suggestions

Goals & Course Objectives:

- Students will develop critical thinking and literacy skills in analysis of text and visual media
- Students will engage in hands-on work in development of original ideas in video, podcasting, and journalism
- Students will collaborate as a class in development of original concepts to production of various pieces of media
- Students will gain an understanding of the concepts of bias and reliability in the current news landscape

Additionally, as a class students will work together to produce journalism pieces for activities going on in the district which may include:

- Content about school events like homecoming, athletics, the musical, and spirit weeks.
- District update videos to showcase the work going on throughout the schools.
- Work in association with the Athletics Department.
- Other student ideas or teacher suggestions.

Course Title: Robotics

Subject Area: Technology

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: .5 credits

Prerequisites: Drawing and Design for Production

Overview:

Robots have become a way of life. They are factory floor workers, bomb-retrieving police bots, robotic surgeons, and Martian rovers and are all designed and programmed to perform specific tasks. Students considering robotics as part of their future plans have opportunities in the broad spectrum of sectors from government to manufacturing. Careers in Electro-Mechanical Engineering and Technician positions are on the rise; such carriers exist here in WNY. This course will introduce students to Digital Electronics and Robotics subsystems and will be an excellent opportunity to learn

programming and project management (very important aspects of many sectors of today's industry). This exposure is pertinent to preparing students for the job force that will exist after they graduate from college.

Students who study technology in this course will apply problem-based learning that integrates Science, Technology, Engineering, and Mathematics skills with their ingenuity, tools, and computer aided research, design, prototyping and testing.

Goals & Objectives:

Robotics: Vex Robotics Kits

- The Structural Subsystem
- The Motion Subsystem
- The Power Subsystem
- The Sensor Subsystem
- The Control Subsystem
- The Logic Subsystem

There will be a focus on team building and project management. Students will:

1. Select a project manager
2. Brainstorm solutions to the challenge
3. Present their ideas to the whole group
4. Participate in a class discussion determining
    A. Order of systems
    B. Modification of subsystems
    C. Overall strategies to control the system
5. Design and fabricate solutions
6. Test

Materials:

Vex Robotics Kits, Various web-based simulators and sources for research, *Pro Engineer (3D Modeling software), Auto sketch (CAD), Solid Works, Microsoft Office, Adobe Visual Communicator*

Course Title: Woodshop 1 (Production Systems)

Subject Area: Technology Education

Student Grade Level(s): 10-12

Length of Course: Half year – 20 weeks

Credit Assigned: 0.5 credit

Prerequisites: None

Overview:

Wood Production Systems is geared for the novice wood worker. No wood working experience is necessary; however, by the end of the course, students will be ready for advanced techniques. In this course, students will learn about quality design and how to properly judge and prepare lumber for superior construction. Students will gain important life skills that will involve problem solving, develop safety habits, and the utilization of tools, machines and materials. Technological tools, materials, and other resources should be selected on the basis of safety, cost, availability, appropriateness, and environmental impact; technological processes change energy, information, and material resources into more useful forms. Such processes involve working with powered machines and a wide variety of materials. Students learn the safe operation techniques of machines, i.e., drill press, table, radial arm, band and jigsaws, planers and jointers, routers and power hand tools.

Goals & Objectives:

- Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.
- Machine Safety – Prototype reproduction
- Band Saw, Drill Press, Radial Arm Saw, Miter Saw, Belt Sanders, Reciprocating Saw, Hand tools, Measuring, Fractions, Drawing Tools
- Sanding Basics & Finishing
- Lathe Turning
- Exotic Wood Pen
- Laminated Wooden Bowl
- End Grain Cutting Boards
- Table Sawing, Routing, Planning, Jointing, Glue up and Clamping, and Drum Sanding

- Laminated Picture Frame
- Table saw jigs, 90 deg. Belt clamps, Wood Laminating

Materials {Include title & Author of Text(s)}:

Feireer, eds. Wood Technology and Processes. New York: Glencoe/ McGraw-Hill, 2006.

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands-on challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills.

Assessment Plan:

Student understanding and participation will be evaluated based on the use of rubrics for projects and experiments. Other formative assessments will be given in the form of a quiz.

Course Title: Woodshop 2 (Creative Design)

Subject Area: Technology Education

Student Grade Level(s): 10-12

Length of Course: Half year – 20 weeks

Credit Assigned: 0.5 credit

Prerequisites: None

Overview:

Wood Creative Design is geared for the novice wood worker. No wood working experience is necessary; however, by the end of the course, students will be ready for advanced techniques. In this course, students will learn about quality design and how to properly judge and prepare lumber for superior construction. Students will gain important life skills that will involve problem solving, develop safety habits, and the utilization of tools, machines and materials. Technological tools, materials, and other resources should be selected on the basis of safety, cost, availability, appropriateness, and environmental impact; technological processes change energy, information, and material resources into more useful forms. Such processes involve working with powered machines and a wide variety

of materials. Students learn the safe operation techniques of machines, i.e., drill press, table, radial arm, band and jigsaws, planers and jointers, routers and power hand tools.

Goals & Objectives:

Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

Machine Safety – Prototype reproduction

Band Saw, Drill Press, Radial Arm Saw, Miter Saw, Belt Sanders, Reciprocating Saw, Hand tools, Measuring, Fractions, Drawing Tools

Sanding Basics & Finishing

Wood Steaming & Bending

Old Time Shaker Reproduction

Lathe Turning

Wood Laminating

Resin Wood Working

Creative/Self Design Project

Materials {Include title & Author of Text(s)}:

Feireer, eds. *Wood Technology and Processes*, New York: Glencoe/ McGraw-Hill, 2006.

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands- on challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills.

Assessment Plan:

Student understanding and participation will be evaluated based on the use of rubrics for projects and experiments. Other formative assessments will be given in the form of a quiz.

Course Title: World of Technology

Subject Area: Technology

Student Grade Level(s): 10-12

Length of Course: 20 weeks

Credit Assigned: 0.5 credit

Prerequisite: 1 year of HS Math & Science - Required

Overview:

Students in World of Technology will investigate growing fields of technological study and careers in technology and engineering. This course offers a respectfully challenging Math and Science based curriculum with hands-on application that uses engineering skills and technology as a tool to further develop problem-solving skills, leadership abilities, and ingenuity with cooperative learning experiences. Big Ideas include: simple machinery, systems vs subsystems, the laws of physics, dynamics, forces & aerodynamics, acceleration, gear ratios, trajectory, energy and alternative energy resources, biotechnology, nanotechnology, electronics, robotics and communication technology.

Goals & Objectives:

- Students will gain an understanding of the various fields of engineering and technological tools and their contributions to society.
- Design Process: Students learn about problem solving and how products are developed to include how engineers work in teams.
- Communication and Documentation: Students collect and categorize data and keep an engineer's notebook
- Engineering Systems: Students learn about the mechanical control systems.
- Statics: Students learn about measurement, scalars and vectors.
- Materials and Materials Testing: Students learn the categories and properties of materials.

Materials:

Computers & Software: *Pro Engineer* (3D Modeling software), *Auto sketch (CAD), Model Smart, Microsoft Office, Adobe Visual Communicator, Envisioneer 3.0.*

Various hand tools, power tools, materials and technologies.

Methods of Study:

Students will work in flexible cooperative learning groups to achieve goals for hands- on design challenges and experiments in the classroom laboratory. This course has an emphasis on teamwork and honing problem-solving skills. Students are required to keep an "Engineering Design Notebook" for each challenge where by documentation will be noted on their project's milestones & design process.

Rank/Weight

Rank in class is based on the final average in all subjects. Final Average is computed by averaging the four quarterly grades with the final exam. The passing grade for all courses is a 65 with a maximum unweighted average of 100. Students in Honors and/or AP courses – grades are weighted.

GPA Scale A=90 – 100 B=80 – 89 C=70 – 79 D=65 – 69 F=Below 65

Weighting Advanced Placement (AP)/Spanish 5 courses 1.08 Honors (H) courses 1.04

Daily classes are weighted at 1.0

Classes that are not daily, like Physical Education, are weighted at .5

Harkness is maximum 3.75 credits. If they take integrated Math, Science or English, the credits are all balanced out to max at 3.75.

Withdrawing from a Course

Following the appropriate procedures through the Student Support Office, students may request to drop a course no later than the 5th week for half-year courses and the 10-week for full year courses. Any drop requests made after the 5th week for half-year courses and the 10th week for full-year courses must have administrator approval and will only be done in unique situations.