

Tioga Central School District

GRADUATION REQUIREMENTS REGENTS EXAM REQUIREMENTS COURSE DESCRIPTIONS

CREDITS - All students must earn a minimum of 22 total credits in order to graduate from a New York State School. Electives offered from year to year will also be taken to fulfill the 22 credit minimum.

REGENTS EXAMS – All students must pass 5 Regents exams in addition to the 22 credit minimum. One Regents exam from each core subject area (Math, Science, History, and English), plus any additional exam.

COURSES - Included in this pamphlet are brief course descriptions of all courses offered at the Tioga Central High School. In the areas of art and technology, some courses are offered on a rotating basis from year to year.

DUAL CREDIT COURSES - We now offer a number of dual credit courses through Tompkins Cortland Community College, at no cost to you. If successful in the class, each of these courses will earn your student three or more college credit hours.

TIOGA CENTRAL GRADUATION REQUIREMENTS

All students in New York State must meet minimum requirements before they can receive a diploma. The following requirements are in place as of this time. You should become familiar with the requirements and might want to maintain a record of completing each one. The guidance office will maintain a set of records for you and will be certain that you are given the opportunity to meet each requirement as your high school career unfolds.

All students entering ninth grade in 2001 and after must get a minimum of 22 total credits to graduate from high school and pass five NYS regents exams. The passing course grade/average for grades 9-12 is a 65, 64 or below is failing.

MINIMUM 22 REQUIRED CREDITS BREAKDOWN

English – 4.0
Social Studies – 4.0
Math – 3.0
Science – 3.0

Spanish – 1.0
Health - .5
Physical Education – 2.0
Art / Music – 1.0

Electives – 3.5

ENGLISH

- Minimum course credit requirement: Four (4)
- All students must take and pass English 9, English 10, English 11 and either English 12 or College English 12
- All students must take and pass the English 11 Regents Exam

SOCIAL STUDIES

- Minimum course credit requirement: Four (4)
- All students must take and pass Global Studies I, Global Studies II, American History and either Participation in Government and Economics, or College American History
- All students must pass either the Global Studies II or American History Regents exams.

SCIENCE

- Minimum course credit requirement: Three (3)
- All students must earn three credits of commencement level science, at least one course shall be life sciences and at least one in the physical sciences, and the third may be either life sciences or physical sciences.
- One (1) Regents Exam is required for a Regents Diploma
- Two (2) Regents Exams are required for an Advanced or higher Diploma
- Courses Offered: Integrated Science, Environmental Science, Earth Science, Living Environment (Biology), Chemistry, Physics, and College Chemistry, College Astronomy, College Meteorology and STEM.

MATH

- Minimum course credit requirement: Three (3)
- One (1) Regents Exam is required for a Regents Diploma
- Two (2) or three (3) (based on year entered grade 9) Regents Exams are required for an Advanced or higher diploma
- Courses offered: Foundations of Algebra, Applied Business Math, Algebra I, Algebra II, Geometry, College Calculus, College Algebra/Trig and College Statistics

LANGUAGE

- Minimum course credit requirement: One (1) at the high school level
- It is **highly recommended** that all students planning to attend college take three years of a foreign language.
- If you are pursuing an **ADVANCED REGENTS DIPLOMA** and choose NOT TO take three years of Spanish, you **MUST GET FIVE CREDITS** in either Art, Music, or Technology.
- Courses Offered: Spanish 1, Spanish 2, Spanish 3, College Spanish 4.

PHYSICAL EDUCATION

- Minimum course credit requirement: Two (2) credits
- All students must take and pass Physical Education each year in high school – ½ credit is issued each year.

HEALTH

- Minimum course credit requirement: One-half credit. Usually scheduled during the sophomore year.

ART / MUSIC

- Minimum course credit requirement: One (1) credit
- The Art/Music credit requirement can be satisfied by earning at least one total credit from the following courses: Chorus, Band, Design and Drawing for Production or Studio Art.

COURSE DESCRIPTIONS

ENGLISH

English 9 – In English 9, students work to improve their reading and writing skills through literary analysis, SAT vocabulary study and grammar study. The students examine and write about a wide variety of literature from many different genres, including the following dramas and novels: *The Miracle Worker* by Henry Gibson, *Romeo and Juliet* by William Shakespeare, *To Kill a Mockingbird* by Harper Lee and *Stargirl* by Jerry Spinelli. Students also use journaling to build on basic writing skills and to improve confidence.

English 10 – This course is a balance between reading and writing to develop critical thinking, reading and writing skills. Reading selections vary from poetry to short stories to classics such as Lord of the Flies, a novel, and “12 Angry Men,” a play. The course reviews the fundamentals of grammar and mechanics with the purpose of developing an effective writing style that also prepares the students for the New York State Regents Examination in their junior year.

English 11 (Regents) – The primary purpose of this course is to prepare students for the Comprehensive English Regents Exam. Students spend the majority of class time reading, analyzing, and writing about various forms of American literature from the 1600’s to the present. Proficiency in reading and writing skills is necessary for successful completion of the course. **A New York State Regents Exam is given at the end of this course and must be passed in order to graduate.**

English 12 – In this course, students read and respond to a wide variety of literature on many important life topics, such as war, technology, love, beauty, success and happiness. Major authors include Shakespeare, Chaucer, O. Henry, Ray Bradbury, Aldous Huxley, Arthur Miller and Nathaniel Hawthorne. Students must also compile a senior portfolio, composed of various samples of practical writing important both for college and the real world, such as completed job application, resume, business letter, college admissions essay, etc.

College English 12

TC3 Dual Credit Course

College Credit Hours - 6

High School Credit – 1

This course is open to seniors who have successfully completed English 11 and scored 88 or better on the NYS English Regents Exam. The course content is comprised of practice writing in a variety of rhetorical modes including argument, description, comparison, classification, narration and definition. Students are required to complete a research paper that conforms to the rules of MLA documentation style. In addition, students complete lessons reinforcing the principles of grammar and usage.

This one-year course is divided into two courses: English 101-College Writing and English 102–Approaches to Literature.

SOCIAL STUDIES

Global Studies I and II (Regents) – This is a two-year course of study. The course is designed to focus on common themes that reoccur across time and place and eight historical eras. Students will be provided with an opportunity to explore various regions and civilizations, issues and themes from multiple perspectives. **A New York State Regents Exam is given at the end of the Global II course and all students must pass either the Global Studies or American History Regents exam in order to graduate.**

- In grade nine: Global Studies I will focus on The Neolithic period through the first global age – 5000 B.C. – 1770 A.D.
- In grade ten: Students in Global Studies II will focus on the Age of Revolution, achievements and crisis up to 1945, and the 20th century since 1945. A New York State Regents Exam is given at the end of this course and must be passed in order to graduate.

American History (Regents) – This course will focus on four major units of study: government, economics, foreign affairs, the American people and their culture. All students receiving credit for this course will be expected to be able to display an understanding of the concepts and issues of these four units. By the completion of this course, students should be able to do the following: gather information by listening, reading and observing with accuracy and comprehension; organize, analyze and interpret information in all forms; communicate information clearly and effectively in both oral and written form **A New York State Regents Exam is given at the end of the Global II course and all students must pass either the Global Studies or American History Regents exam in order to graduate.**

Participation in Government – The primary goal of this half-year course is to provide seniors with the opportunity to understand the formulation of public policy through involvements in the democratic process. Students are given opportunities to apply and expand basic skills, knowledge, and attitudes that have been developed throughout the K-11 social studies program. Participatory activities will be based in the classroom, but may be expanded to encompass the real world, from the school community to the global community.

Economics - This half-year course provides a practical presentation of the American economics system that covers such topics as: how our economics system works, the roles of the consumer, producer, and the corporation, unions and governments, as well as current economics issues. Students participate in group projects that allow a better understanding of the economic system and how it operates in today's world. This is a one-semester course taken in conjunction with PIG.

College American History -

TC3 Dual Credit Course

College Credit Hours - 6

High School Credit - 1

This course integrates political, social, economic, cultural, diplomatic and intellectual history in order to convey the experiences of particular groups within the broader perspective of the American past. At the same time, it connects events and issues from the past to the concerns of the present. History shows Americans continuously adapting to new developments as they shape the world in which they live. This course includes the following points for emphasis: chronological organization, economic patterns, geographical literacy, social and cultural trends, Understanding point of view, intellectual developments, political dynamics and foreign diplomacy. *Starting in school year 2010/2011, this course will be offered to juniors ONLY.*

MATHEMATICS

Foundations of Algebra - This course is a Regents preliminary course as it is designed to help students prepare for the Algebra I Regents they will take after completing Algebra I. This course will review the eighth grade curriculum, and begin a basis of instruction for Algebra. Topics covered are: numbers and operations, radical operations, solving equations, formulas, equations of lines, elementary statistics, translation verbal phrases into mathematical expressions, verbal problems, and any other Algebra topic if time is allotted. This course earns students one of three math credits required for graduation.

Applied Business Math - This year course is designed to prepare students for math in the real world. The class strengthens basic skills and shows their applications in everyday problems the students will soon encounter. Topics covered include: percentages, credit cards, banking, budgeting, and financing and purchasing a car. The course is primarily a project-based course as most of the work is authentic and requires group collaboration. However, the students do undergo some formative tests and quizzes. The course earns students one of three math credits required for graduation. The second half of Applied Math covers topics such as: consumption, taxes, home improvement projects, sales and occupational assistance such as forming a resume for filling out a job application. The course is also primarily project-based, however, the students to undergo some formative tests and quizzes.

Common Core Algebra I (Regents) - This one-year course addresses the standards set forth by the newly adopted New York State Mathematics Standards Committee (<http://www.emsc.nysed.gov/3-8/MathCore.pdf>). At the ninth grade level, students continue to study the five content strands: number Systems and Operations, Algebra, Geometry, Measurement and Statistics and Probability, with emphasis on algebra. We place value on students being able to problem solve, reason and communicate mathematically. **A New York State Regents Exam is given at the end of this course and must be passed in order to graduate.**

In general, Common Core Algebra concentrates on the properties and operations of the Real Number system. Topics include the algebraic skills that are required to solve linear equations/inequalities and fractional equations, perform operations on monomials and polynomials, radicals, and algebraic fractions with like denominators. The students will also learn to solve and apply quadratic equations (by factoring), linear-linear systems (graphically and algebraically) and linear-quadratic system (graphically) of equations.

Common Core Geometry (Regents) - A second year, state-developed curriculum that focuses on geometry. Attention is given to the idea of deductive, analytical, and indirect proof. Properties of congruent triangles lead to proving the properties of quadrilaterals. Coordinate geometry (slope, distance, midpoint) proofs are also explored. Work is also done with the internal and external angles of a polygon. The algebra of geometric relationships is taught in terms of congruent and similar triangles. Mean proportional, composition of functions using transformational geometry, the measure of angles in a circle, the measure of angles created by chord, tangents and secants and writing equations of lines. Students will also graph linear-quadratic systems of equations and the circle. **A New York State Regents Exam is given at the end of this course.**

Common Core Algebra II - Algebra 2 / Trigonometry is the third and final course offered in the New York State series. Students will have the opportunity to explore an integrated approach to the study of advanced algebra and trigonometry concepts. Students will represent and analyze algebraically a wide variety of problem solving situations including absolute value, radicals, rational expressions and logarithmic expressions. Students will also recognize and use patterns, relations and functions as they apply to

sequences and series, coordinate geometry and trigonometry. Students will also collect, organize, display and analyze data as well as make predictions based on theoretical and empirical probabilities. Students will use a graphing calculator throughout the course. **A New York State Regents Exam is given at the end of this course.**

College Calculus

TC3 Dual Credit Course

College Credit Hours – 3

High School Credit - 1

This course includes many of the topics covered in a freshman college course. They include: differentiation and its application to curve tracing and physical applications, theory of limits, integration and finding areas and volumes bounded by straight lines, quadratic and cubic curves, the theoretical process of circles, ellipses, hyperbolas and rectangular coordinates and graphs. Advanced graphing includes absolute value function and the greatest integer function. Use of a Texas Instruments Calculator is required.

College Algebra and Trigonometry

TC3 Dual Credit Course

College Credit Hours - 3

High School credit – 1

This course provides an integrated approach to technology and the skills required to manipulate, display and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation and solving of algebraic and radical functions, complex numbers, Triangle trigonometry, systems of equations, Exponential and Logarithmic Functions, Trigonometry Equations and Applications, and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

College Statistics

TC3 Dual Credit Course

College Credit Hours - 3

High School credit – 1

This course involves the application of statistical procedures to the analysis of experimental data. Topics covered in this course will include, but are not limited to, measures of central tendency and dispersion, graphical displays, comparing distributions, exploring bivariate data, exploring categorical data, methods of data collection, planning and conducting surveys and experiments, probability as a relative frequency, combining independent random variables, the normal distribution, sampling distributions, confidence intervals and tests of significance.

STEM

High School credit - 1

This class is a fusion of Science, Engineering, Technology, and Math. The end goal of this class is to become familiar enough with the programming process used by the Construct program to produce a completely new computer game. Students will progress through 6 skill building lessons where they program games using templates, each lesson being slightly more difficult and more independent than the previous one. Over the course of 40 weeks, students will explore game theory and design, play both professionally made games and games created in class, and offer critiques and criticism for both their own work and the work of their peers. . Using a more advanced programming language, students will build several projects, leading to the final project of a fully functional role-playing game. The focus of the first 10 weeks will be to become familiar with C# - a derivative of JAVA and C++ programming languages - through several tutorial

lessons. Most of class time will be spent working independently so students must be self-motivated and have a strong math background. Once the background programming and physics review are complete, students get to build a fully functional game from the ground up. As students will likely be reaching well outside their comfort level in this class, they are expected to be self-motivated and have excellent problem solving skills.

ROBOTICS

Students will walk through the design and build a mobile robot to play a sport-like game, During this process they will learn key STEM principles and robotics concepts. At the culmination of this class, they will compete head-to-head against their peers in the classroom, or on the world stage in the VEX Robotics Competition, the largest and fastest growing international robotics competition for middle and high school students. This course grants 1 credit.

SCIENCE

Integrated Science –

This course will be covering a variety of biological and physical science topics this year, including: scientific method and equipment, physics, cells, human body systems, earth science, and astronomy. This course will prepare students to be successful in both Regents Earth Science and Regents Biology which are both graduation requirements. This course grants 1 credit.

Earth Science (Regents) - The major divisions of the course are: geology, oceanography, astronomy, meteorology and conservation. This class meets every day of the week, plus once per week for laboratory. Labs usually consist of gathering data on a process or phenomenon. We then organize and analyze this data mathematically and/or graphically looking for natural patterns or laws. **Students must meet the lab requirement in order to take the NYS Regents Exam at the end of this course.**

Living Environment (Biology) (Regents) - Regents Biology deals with the living things which occupy the world around us. It is the intent of this course to provide students with an awareness of the natural world, basic scientific concepts, stimulation of inductive reasoning and a basic understanding of biological processes and generalizations. This course consists of a basic core of eight units: ecology, classification, the five kingdoms, biochemistry, cells and reproduction, genetics and evolution, plant adaptations and animal systems. This class meets every day of the week, plus once per week for laboratory. **Students must meet the lab requirement in order to take the NYS Regents exam given at the end of this course in June.**

Environmental Science - Environmental science is the study of the effects that natural and unnatural (man-made) processes, whether physical, biological, and/or chemical, have on Earth's environment. The purpose of the course is for students to learn how to do research by either gathering data through experimentation or via the internet, summarizing their results in written reports, and giving oral presentations on their topic of study.

Chemistry (REGENTS) - Chemistry is the science that deals with matter and chemical changes it undergoes. Students taking this course must be willing to devote a fair amount of energy and time to his/her studies to be successful. In addition, to be able to understand and use the principles of chemistry, the student should have a good mathematical background and must be able to perform mathematical functions on a calculator. The course is divided into 10 units which include: matter and energy, atomic structure, nuclear chemistry, bonding, periodic table, stoichiometry (Math of Chemistry), kinetics and equilibrium, electrochemistry, organic chemistry and laboratory skills. This class meets every day of the week for lecture, plus two laboratory periods per week. Laboratory exercises serve to reinforce the concepts that were introduced in the regular class periods. Satisfactorily written laboratory reports are a necessary and required part of this course. **Students must meet the lab requirement in order to take the NYS Regents Exam at the end of this course.**

College Chemistry

TC3 Dual Credit Course College Credit Hours - 3

High School Credit - 1

This is a study of the basic principles of chemistry including: measurement, atomic structure, bonding, mole concept, stoichiometry, chemical formulas and equations. It is intended for students who have not had a chemistry course. Quantitative laboratory experiments are performed utilizing fundamental principles studies in the course. Outside preparation for laboratories will be required. CHEM 101 fulfills the SUNY General Education Natural Sciences requirement. **Students taking this course instead of regular Chemistry will still have a NYS Regents Exam at the end of the course (if the lab requirements is met).**

Physics (REGENTS) - This course is divided into four areas of study: mechanics, waves, electricity and atomic and nuclear physics. The tremendous scientific advances within the past 25 years have created a critical shortage of skilled technicians, scientists and engineers. The maintenance of our standard of living and our national security depend largely upon an increasing supply of scientifically trained personnel. This course will supply a strong foundation upon which to build further skills and understanding. This class meets five times per week for lecture and two times per week for laboratory. **Students meeting the lab requirement will take the NYS Regents Exam at the conclusion of this course.** Students taking Physics should already have a working knowledge of algebra and geometry.

College Astronomy - This is a general study of the fundamental principles of astronomy. This course concerns the motions of the earth, members of the solar system, stars and the universe.. This course satisfies the SUNY general education requirement for the natural sciences.

Course Co/Prerequisites:

Algebra 1:	Class average of 85% or better
Geometry:	Class average of 85% or better
English 10 or 11:	Class average of 85% or better

College Meteorology -A study of the weather around us. Topics include the structure of the atmosphere, heat balance of the earth, air masses, circulations, fronts, cyclones, severe weather, and climate and its change. The laboratory will emphasize mathematical calculations for atmospheric physics and processes, gathering meteorological data, analysis of weather systems, and short-term weather forecasting. METR 101 fulfills the SUNY General Education Natural Sciences requirement.

Course Co/Prerequisites:

Algebra 1:	Class average of 85% or better
Geometry:	Class average of 85% or better
English 10 or 11:	Class average of 85% or better

LANGUAGE

Spanish I - The beginning of this course will be a brief review of the student's prior year of Spanish, followed by intense grammar and vocabulary. A large portion of time will focus on culture activities from eight different Hispanic countries. Activities such as movies, crafts, projects and internet research will be included. Students will also be introduced to writing mini-research papers and they will begin to learn to read in Spanish by selections of beginner readers.

Spanish II - This class will continue to learn grammar and vocabulary. More speaking will be introduced via dialogue. Students will begin to write compositions and read short stories. Listening and understanding Spanish will also be a big part of the class. There will be hands-on projects such as writing advertisements, making commercials and creating arts and crafts. Culture continues to play an important part of the class and the students will view various movies.

Spanish III - Spanish III is the most intensive year for grammar and vocabulary. Students will work throughout the year on speaking, writing, listening activities and reading ads and short stories. The majority of class time is spent on preparing the students for the NYS Regents Exam, which they will take at the end of the school year. However, culture is still an influential part of the class and the students will create arts, crafts and projects.

College Spanish 4

TC3 Dual Credit course

College Credit Hours - 6

High School Credit – 1

In this Intermediate Spanish 1 course, we will concentrate on speaking, reading, writing and listening comprehension. Emphasis will be on improving speaking and reading skills. Grammar covered in high school levels 1, 2 and 3 will be reviewed and expanded upon. New grammar topics will be introduced. This course will also include the culture of several Spanish-speaking countries. Vocabulary related to culture and to real-life situations will be taught. Students will have to communicate in the past, present and future in Spanish.

ART

Studio Art - This is a full year course, offering a basic introduction to aesthetics, function, technique and the elements and principles of art. The foundation curriculum is a sequence of varied concentrations in 2-D design, drawing and painting, 3-D design, fibers, ceramics and graphics. Students will work on short-term and long-term projects. One credit Studio Art fulfills the NYS graduation requirement for an art/music credit and provides the basic concepts, vocabulary and insight necessary for students to complete an art major. Prerequisite to Advanced level art courses.

Advanced Studio Art - This is a full year course that offers college level curriculum in the high school environment. Students who successfully complete the course will have completed a personal portfolio, will have been entered in many exhibits, and will have created slides of their work for possible college admittance. This course is for the serious art student who has 1-3 prerequisite art courses under their belt. Students are self-guided through the course and are also taught about possible careers in art to pursue. Students work on long-term projects, and homework is expected bi-weekly (we use all art mediums).

Ceramics - This class is a half year course, offering an overview of ceramic processes, introducing students to various hand building, wheel working, slip/glaze application and kiln firing processes. Projects deal with aesthetic concerns common to both sculpture and pot making. Students will work on short-term and long-term projects, and have a final project and paper. Homework is expected every other week.

Drawing / Painting - This is a full year course, offering a more in depth approach to the creation of 2-D works. This course is a drawing studio in which students can explore different mediums and application methods in drawing and painting, using discussion, slides and projects that deal with using drawing as a tool to understand the importance of incorporating the elements and principles in a piece of art. Students will work on short-term projects to establish the concept and then long-term projects to embellish the concept. A sketchbook with weekly sketches, as well as project work and quizzes will determine marking (we work with pencil, charcoal, pastels, chalk, oil paint, watercolor, acrylic paint and tempera paint).

Sculpture - This is a half year course, offering a more in depth approach to creating 3-D work. Methods and processes will include carving, sculpture in the round, assemblage, and casting (we use plaster, clay, copper, linoleum, balsa wood, and soap stone). Students will work on short-term projects to establish the concept and then long-term projects to embellish the concept. Homework is expected every week and a final artist critique will determine marking.

Digital Photography – In this course, students will learn the basics of photographic composition and lighting and the basics of using a digital camera. Students will also learn basic color theory and the fundamentals of image processing. This course is designed for the student who has no background in photography and a prerequisite in Studio Art.

Animation - In this course, students will be introduced to the concept of animation. Not merely making something move across the screen, but rather making something come to life. We learn how to do this through The Principles of Animation, ideas and concepts that were identified and written down by 2 of the original Disney Animators. Each week we will examine and explain one principle and then put it into practice as the student will have an assignment to create their own animation during the week. By the end of Animation the student will have created 4 animation projects. Studio Art is a prerequisite.

MUSIC

Chorus - Chorus is a performing musical group offered each year. Any person who takes this class and works hard will become a better singer and the skills acquired during this class can later be transferred to any style of singing. Each class period includes techniques for improving the sound of the voice, group tuning and blend, as well as producing the correct sound for each of the several styles of music rehearsed that semester. This course has a consistent emphasis on learning to read music, allowing you to be a strong member of any chorus you join, during or after high school. The chorus performs at the Christmas and Spring concerts, as well as graduation.

Band - The band is a performing musical group that meets five periods a week through the entire year for rehearsal. Students in band find enjoyment in participating in the production of good music composed by fine composers. There are two annual concerts, one at Christmas and one in the spring. There are also sectional competitions yearly at which members may compete.

The school band and chorus provide an opportunity for students of all ages to participate as one group in a common endeavor -- that of producing good music at the level which the group is capable of attaining.

Individual Instrumental Music - The study of instrumental music is offered to any student during his/her high school career. The school officials will decide when the student is capable of such study. Instruction given to groups, sections or individual band members is referred to as individualized instruction. Pupils who want or need special assistance report for all or part of a period to receive this instruction which supplements rehearsal. This program is offered so students may have an opportunity to learn to play an instrument and join the school band when they are deemed far enough advanced to warrant such participation. Please contact the band teacher for information on procurement of an instrument or other detailed arrangements.

College Music Theory I

TC3 Dual Credit Course

College Credit Hours - 3

High School Credit - .5

This course is the introduction to the building blocks of music. Students will learn basic terminology, vocabulary, and notation of music. Students should be able to apply the knowledge of into reading, writing and performing music. This course covers the following: basics of reading music, rhythm and meter, scales, basic harmonizing, using the piano keyboard and basic ear training. Class time will be spent on lectures, listening exercises and composing exercises. Much of the class work will be based on participation and missing classes will have a direct effect on grades.

College Music Theory II

TC3 Dual Credit Course

College Credit Hours - 3

High School Credit - .5

This course is a continuation of Music Theory I and will continue use of ear training using sight-singing and review of intervals. Class time will be spent on lectures, listening exercises and composing and performance exercises. Much of the class work will be based on participation and missing classes will have a direct effect on grades.

College Music Appreciation

TC3 Dual Credit Course

College Credit Hours - 3

High School Credit - 1

Students will learn how to play and perform simple melodies on the dulcimer for a performance later on in the semester. This will enable the class to work together to form an ensemble. Grading is based on participation, listening and homework, tests and projects. This course covers music theory, composition, instruments, musicals, music history, dulcimers and history of American music from Elvis to music of 2009. Students must be in good standing with attendance in order to succeed in this class. Much of the class work will be based on participation and missing classes will have a direct effect on grades.

TECHNOLOGY - Most technology courses are half-year courses – worth ½ credit.

Design and Drawing for Production – (one credit)

DDPA is a technical drawing course that covers freehand sketching and orthographic drawings (different views of the same object – top, front and right side views). Students will learn how to use geometry to solve drafting problems. Students will then design a solution to a problem, draw the solution, and build what they have drawn. The second half of the year will cover sectional views, auxiliary views and pictorials. The most common projects are the bridge building contest, rocket building contest and the home kitchen design competition.

Successful completion of this course will satisfy the NYS graduation requirement for one credit of art/music.

Materials Processing - This course is designed to offer a generic and broad view of the way humans change materials. Various materials use similar processing techniques to change the physical characteristics. Students will be involved with laboratory activities that will demonstrate specific concepts in the processing of materials. Students will, through a variety of projects, use all of the equipment in the lab.

Energy - This course is designed to enable students to understand the concept of energy. Students will learn that energy supplies both renewable and nonrenewable energy usages. Hands-on experiences and project building will help students learn about energy conservation systems.

Electricity / Electronics - Theory and lab experiments help the students to observe electrical phenomena and to become involved in electrical project construction. A variety of electrical test equipment is used including transistor testers, power supplies comparators and oscilloscopes.

Manufacturing Systems - This course is designed around the processing of materials and knowledge to make products. A product is chosen and research is conducted as to the sales prospects and the difficulty of mass production. Jigs and fixtures are designed to make and assemble all parts to eliminate “hand-making” the products, which are then sold.

Transportation Systems - Exploration of transportation systems from the perspective of land, marine, and aerospace is the focus of this course. Students will be involved in many laboratory activities that provide insights and experience into the three areas. The theory of the internal combustion engine will be learned by repairing two and four cycle small engines.

Land Transportation - Knowledge and understanding of the parts, operations and repair of multi-cylinder engines is the focus of this course. Students will be taught the theory of engine operation, functions of engine parts, and system procedures. The evolution of land travel will be covered. Students will use and study the basic and special tools used to perform engine repairs.

Production Systems - Students will be introduced to the manufacturing and construction industry. They will learn about manufacturing through developing a company, buying and selling stocks, problem solving and mass producing a product and marketing that product. The construction phase provides the opportunity for students to learn about the jobs, occupations and building procedures in the construction industry.

Technical Drawing - This course develops the student’s understanding of basic residential construction drawing practices through the study of such topics as working drawings and specifications, construction methods, and utilities. The student is required to complete drawings for a major project.

Computer Aided Design (CAD) - This course provides an opportunity for students to learn how to use the computer in the technical drawing area. Some conventional drawing equipment and basic computer theory is studied to prepare them for the use of the computer based drafting program. Several drawings using the computer and plotting them on the plotter are required for grading purposes. A final major drawing is required.

Welding – In this course students will learn how to use a Stick welder, MIG welder, and a TIG Welder. They will also learn how to use a Plasma cutter while building projects in the lab. This course is partnered with a local business who will come in and share their experience and skills.

HEALTH / PHYSICAL EDUCATION / DRIVER EDUCATION

Health - This course is a required course for graduation. It's a half-year course which studies the physical, mental and emotional health of males and females. Included are units in nutrition, relaxation and hobbies. Other topics include common diseases, the importance of good grooming and the effects of narcotics, alcohol and tobacco. Safety and first aid are also briefly covered. This course is based on the NYS Health Curriculum.

Physical Education - PE is required by State law, and each student must participate and pass Physical Education to graduate from high school. Students receive one-half credit per year for a total of two credits. Every student is required to participate and pass an aquatic unit each school year. All students are required to wear proper attire and put forth effort for each unit. Attendance and participate are mandatory with the exception being a medical excuse in the form of a written note from a physician. Physical Education is figured into each student's GPA.

Strength & Conditioning - Strength and Conditioning class provides students with the opportunity for development of strength and conditioning for various sports and fitness related activities. A variety of activities will be incorporated in the program to promote improvement in strength, endurance, flexibility, balance, power, agility, and speed. Proper technique and safety precautions will also be emphasized. Students receive one-half credit.

Driver Education - Seniors are given first priority for this class. Student requests for driver education are made in your junior year when meeting with the school counselor to request courses for your senior year. Seniors are scheduled into driver education randomly through our student management system. Academic and required courses are scheduled first. Only eighteen seniors are scheduled into driver education each semester. NYS driver education attendance requirements apply. Students who do not meet the NYS attendance requirement, at any time during the semester, will not receive their MV285 Student Completion Certificate. Tioga Central credit may still be given IF the student passes the class with a 65 or better. Prerequisites for driver education are:

- Students MUST HAVE their permit prior to taking the course
- Students must have an excellent attendance record prior to requesting the course

It is a privilege to take Driver Education and at any time a student does not display a proper safe driving attitude, he/she will be dismissed from the course.

CAREER AND TECHNICAL EDUCATION (CTE)

Commencing in their junior year, students can participate in a Career and Technology Education (CTE) sequence in areas of Building Trades or Graphic Design. The purpose of this CTE sequence is to expose students to the variety of career opportunities in these two fields, as well as the skill set necessary to be successful in these career areas. Each sequence is a block of two class periods, and students earn two credits towards graduation.

CTE Graphic Design I and II - This 90-minute course is designed to provide you with the skills you'll need to pursue a career in Graphic Design by providing you with industry relevant skills. You will learn these skills through multiple interactive methods including computer art, conceptual design, visual diagramming, text, video and more.

CTE Building Trades I and II - This course introduces the student to all phases of the residential and commercial construction industry and to the occupations associated with the industry, including but not limited to electrical systems, estimating materials, job site safety, measuring and layout, foundation work, floor and wall framing, roof construction, stair construction, plumbing and HVAC. Major projects include building a small structure, scale models and blue print design. Students will also be involved in many other in-class, hands on activities.

**TIOGA CENTRAL SCHOOL DISTRICT
TIOGA CENTER, NY 13845**

Superintendent of Schools: Mr. Scot Taylor
MS Principal: Mr. Willard Cook
High School Principal: Mr. Joshua Roe
Tioga Elementary Principal: Mrs. Kathy Keene
Committee on Special Education: Mrs. LuEllen Hoyt

Administration: 687-8000
High School: 687-8001
Middle School: 687-8004
Tioga Elementary: 687-8002