2023-2024

CHURCHVILLE-CHILI

COURSE HANDBOOK

GRADES 9-12

NCAA ELIGIBILITY REQUIREMENTS

DIVISION I

If you enroll in a Division I college and want to be a full qualifier participant in athletics and receive an athletics scholarship, you must meet the following NCAA requirements:

- Complete 16 core courses listed below.
- Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school.
- Seven of the 10 core courses must be in English, math, or science.
- Earn a core-course GPA of at least 2.300.
- Earn the SAT/ACT score matching your core-course GPA on the Division I sliding scale (see NCAA website for scale).
- Graduate high school.

16 Required Core Courses:

- 4 years of English
- 3 years of mathematics (Algebra I or higher)
- 2 years of natural or physical sciences (including 1 year of lab science)
- 1 additional year of English, mathematics, or natural/physical science
- 2 years of social science
- 4 years of additional core courses (from any category above, foreign language or comparative religion/philosophy)

DIVISION II

If you enroll in a Division II college in August 2018 or later and want to be a full qualifier participant in athletics and receive an athletics scholarship, you must meet the following NCAA requirements:

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.200.
- Earn the SAT/ACT score matching your core-course GPA on the Division II scale (see NCAA website for scale).
- Graduate from high school.

16 Required Core Courses

- 3 years of English
- 2 years of mathematics (Algebra I or higher)
- 2 years of natural or physical sciences (including 1 year of lab science)
- 2 years of social science
- 3 additional years of English, mathematics, or natural/physical science
- 4 years of additional core courses (from any category above, foreign language or comparative religion/philosophy)

BE SURE TO ASK YOUR COACH OR SCHOOL COUNSELOR ABOUT THESE REQUIREMENTS OR DOWNLOAD THE "GUIDE FOR THE COLLEGE-BOUND STUDENT-ATHLETE" AT https://web3.ncaa.org/ecwr3.

Courses that have been approved by NCAA are noted next to the course title.

ENGLISH 9 (NCAA)

In accordance with the New York State and Churchville-Chili learning standards for English Language Arts, students read, write, listen and speak for four purposes: for information and understanding, for literary response and expression, for critical analysis and evaluation and for social interaction. Students proceed through the writing process as they compose: they engage in various prewriting activities to set their focus, they write, they revise, they edit and they publish their work. Furthermore, students read a variety of literature including novels, plays, and works of nonfiction in addition to many shorter works and poetry. Throughout the year, students work to improve and enhance their speaking and listening skills. A library research unit is also a part of the year's activities as well as opportunities to use technology to support student learning. The final examination in June is a departmental final examination.

Prerequisite: English 8
Open to grade 9, 1 credit

ENGLISH 9 H (NCAA)

Offered as an introduction to Advanced Placement English Language and Composition 11 and Advanced Placement English Literature and Composition 12, English 9 Honors is open to students who have demonstrated exceptional ability in reading and writing as well as a strong commitment to a rigorous, demanding course load. Since this course is a precursor to advanced level classes, the curriculum will focus on various modes of discourse and genre as well as stylistic devices. Students must be highly motivated since this is a fast-paced class with rigorous expectations. The final examination in June is a departmental final examination.

Prerequisite: Student should demonstrate a strong work ethic and an interest in English. A final average of 90 or better in English 8 or English 8 Honors is required, as well as a 3+ or 4 on the NYS ELA 8 assessment. A student entering from English 8 must have a recommendation from his/her English teacher.

Open to grade 9, 1 credit

ENGLISH 10 (NCAA)

Students must write for the four purposes identified in the New York State and Churchville-Chili learning standards for English Language Arts: for information and understanding, for literary response and expression, for critical analysis and evaluation and for social interaction.

They work on refining their abilities to formulate and develop expository essays. They read a wide range of literary selections ranging from novels, plays, and short stories to poetry and nonfiction. A library research unit is also a part of the curriculum as well as further opportunities to use technology to support their learning. The final evaluation in June is a departmental final examination with tasks similar to those on the New York State Regents examination.

Prerequisite: English 9
Open to grade 10, 1 credit

ENGLISH 10 H (NCAA)

This course continues the standards set in English 9 Honors and the expectations of AP English Language and Composition 11, AP English Literature and Composition 12, and IB Language and Literature I. Students must demonstrate the ability to perform in an exceptional manner in the areas of reading comprehension, writing, and analysis. The course will be based on a fast-paced and challenging curriculum. Students will be required to complete a summer reading and writing assignment prior to beginning the course in September. Students should commit to higher standards and a demanding workload. Students enrolled in this course take the New York State Comprehensive Regents Examination in English as their final evaluation in June.

Prerequisite: Student should demonstrate a strong work ethic and an interest in English. A final average of 85 or better in English 9 or English 9 Honors is required, as well as a 3+ or 4 on the NYS ELA 8 assessment. A student entering English 10 Honors from English 9 must have a recommendation from his/her English teacher.

Open to grade 10, 1 credit

ENGLISH 11 (NCAA)

In June of the junior year, students take the New York State Comprehensive Regents Examination in English, and during the first semester they have many opportunities to write the types of essays that are included on this exam. As in their earlier years of high school, they continue to use the writing process as they compose for the four purposes identified in the New York State and Churchville-Chili learning standards for English Language Arts. The literature they read in this course is primarily American literature. In addition to a number of short stories and poems, students read novels, plays and nonfiction. In preparation for the PSATs and SATs, teachers stress vocabulary and grammar. They also provide students further opportunities to develop their skills in library research and technology use.

Prerequisite: English 10
Open to grade 11, 1 credit

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION 11 (NCAA)

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The AP Language and Composition course enables students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. Students will be required to complete a summer reading and writing assignment prior to beginning the course in September. In May, students take the Advanced Placement Examination in English Language and Composition. A successful score on the examination qualifies students to apply for college credit and/or admission to upper level courses at the college they will be attending.

Prerequisite: Student should demonstrate a strong work ethic and an interest in English. A minimum grade of 90 or better in English 10, or Pre-AP English 10 is required and a score of 90 or better on the English 10 examination. A student entering Advanced Placement from English 10 must have a recommendation from his/her English teacher.

Open to grade 11, 1 credit

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION 12 (NCAA)

The goal of Advanced Placement English is to engage students in the careful reading and critical analysis of imaginative literature. Through the in-depth active reading of representative texts from multiple periods, genres and cultures, students will deepen their understanding of the ways writers use language, structure, theme, and style. Writing assignments in the form of expository, analytical, and argumentative essays make up the bulk of student writing for this course and reinforce critical reading and analysis. Emphasis is placed on sophisticated language and stylistic maturity. Occasional creative writing and technology assignments will be used to sharpen understanding and appreciation of literary artistry. Since the reading for this course should be "wide and deep," students will be required to complete a summer reading and writing assignment prior to beginning the course in September. In May, students take the Advanced Placement Examination in English Literature and Composition. A successful score on the examination qualifies students to apply for college credit and/or admission to upper level courses at the college they will be attending.

Prerequisite: Students should demonstrate a strong work ethic and an interest in English. A minimum grade of 90 or better in English 11 or AP English Language and Composition 11 is required and a letter of recommendation from his/her English teacher. A student entering Advanced Placement from English 11 must have a score of 90 or better on the NYS ELA Regents 11 examination and a recommendation from his/her English teacher.

Open to grade 12, 1 credit

IB LANGUAGE AND LITERATURE I (NCAA)

The IB Language and Literature course focuses on the analysis of a wide variety of texts and genres. These will include: mass media communication, samples of advertising, internet resources, literary works, and nonfiction essays. Reading and discussion will focus on the idea that language, in all its forms, reflects larger cultural interests and concerns. The chosen texts introduce students to a wide range of global themes and issues. Through oral and written expression, students will develop the ability to engage in close, detailed analysis of texts.
This is a two-year sequence required for the IB diploma. Students will take all four sections of the International Baccalaureate examination over the two years. Completion of this course and all parts of the exam satisfy the English language requirement for the IB diploma.

Open to grade 11, 1 credit

IB LANGUAGE AND LITERATURE II (NCAA)

In IB Language and Literature II, students will continue the multi-genre discussion begun in Language and Literature I. In this half of the course, students will focus on both oral presentations and written assessments. In order to receive an IB certificate in English, students must complete both years of the course.

Prerequisite: IB Language and Literature I
Open to grade 12, 1 credit

ENGLISH 12 (NCAA)

This course will provide a range of opportunities for students to enhance their reading, writing, speaking, and listening skills. The main objectives of the course are to prepare students for college writing and/or literature courses and help students to acquire the necessary communication skills for life outside of high school. Course work will include the study of a wide range of texts from various perspectives. Written work will include a formal research paper, analytical essays, a personal essay and a reflective essay. Students will submit a writing portfolio showcasing learned skills as their final assessment.

Prerequisite: English 11
Open to grade 12 Only
Semester, 1/2 credit

SCIENCE FICTION (NCAA)

Science Fiction is a survey course which exposes students to a selection of stories and novels from the genre. Students will consider the ethical, philosophical, and social issues prevalent in science fiction writing. Potential authors for consideration include Ray Bradbury, Isaac Asimov, Kurt Vonnegut, Arthur C. Clarke, Robert Heinlein, C. S. Lewis, Dan Simmons, Ursula LeGuin, Mary Shelley, and H. G. Wells.

Prerequisite: None
Open to grades 10-12, 1/2 credit

DETECTIVE AND MYSTERY FICTION (NCAA)

Detective and mystery narratives raise fascinating questions about the process of reading and interpretation. Students will read various mystery and detective stories and will examine the changing cultural and technological implications of mystery and investigation. Potential authors for investigation include Sir Arthur Conan Doyle, Edgar Allan Poe, Agatha Christie, Truman Capote, Daphne DuMaurier, and John Grisham.

Prerequisite: None
Open to grades 10-12, 1/2 credit

MYTHOLOGY (NCAA)

In this course students will be introduced to classical Greek and Roman mythology, Norse tales, Celtic lore, and legends of King Arthur. Students will explore stories of gods and goddesses, myths about human beings, and tales of knights. These myths and tales will be the most familiar in Western culture and literature. Units and projects will address a wide variety of student learning styles, including art, videos, and writing.

Prerequisite: None
Open to grades 10-12, 1/2 credit

CREATIVE WRITING (NCAA)

In this course, students are able to extend the writing they have done in the regular English class. They write both fiction and nonfiction, and, through frequent writing, they develop their own voices and styles. Students compose works of varying lengths and write for a variety of purposes and audiences. As they proceed through the writing process, they have many opportunities to evaluate their own writing and that of their peers, and they receive feedback from other students as well as the teacher.

Prerequisite: None
Open to grades 10-12, 1/2 credit

MATHEMATICS

The TI – 83 plus or TI-84 plus handheld is recommended for all Mathematics courses

ALGEBRA 1 (NCAA)

Algebra provides tools and ways of thinking that are necessary for solving problems in a number of diverse disciplines, such as science, business, social sciences, fine arts, and technology. The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. This course will also assist students in developing skills and processes to be applied using an assortment of techniques to successfully solve problems in a variety of settings. The Algebra Regents examination will be taken in June, and which is a graduation requirement.

Prerequisite: Math 8, 1 credit
Final Assessment: Algebra 1 Regents Exam
Final Assessment: Geometry Regents Exam

GEOMETRY (NCAA)

Geometry is the second regents course in mathematics for high school students preparing for the Regents Diploma with Advanced Designation. Within this course, students will have the opportunity to make conjectures about geometric situations and prove in a variety of ways, both formal and informal, that their conclusion follows logically from their hypothesis. Students will justify geometric relationships and properties of geometric situations. It is intended that students will use the traditional tools of compass and straightedge as well as dynamic geometry software that models these tools more efficiently and accurately, to assist in these investigations. Geometry is meant to lead students to an understanding that reasoning and proof are fundamental aspects of mathematics and something that sets it apart from the other sciences.

Prerequisite: Successful completion of the Algebra 1 course and the Algebra 1 Regents exam, 1 credit.
Final Assessment: Geometry Regents Exam

GEOMETRY HONORS (NCAA)

This course is the honors version of Geometry. Students in this program must display a strong work ethic and a desire to explore topics at a deeper level. Students will take the Geometry Regents exam in June.

Prerequisite: Successful completion of the Algebra 1 Honors course and Algebra 1 Regents exam, 1 credit
Final Assessment: Geometry Regents Exam

ALGEBRA 2/IB MATHEMATICS APPLICATIONS & INTERPRETATION SL 1 (NCAA)

This is the third regent's course in mathematics for high school students preparing for the Regents Diploma with Advanced Designation. This course will prepare the student for the Algebra 2 Regents Exam and also satisfy the first year of the two year requirement for the IB Diploma or certificate. While developing the algebraic techniques that will be required of those students who continue their study of mathematics, this course is also intended to continue developing alternative solution strategies and algorithms. Topics include, but are not limited to, imaginary and complex numbers, the families of functions, data analysis, sequences and series, probability and trigonometry. A graphing calculator is required for this class.

Prerequisite: Successful completion of both the Algebra I and Geometry courses and the Regents exams; 1 credit
Final Assessment: Algebra 2 Regents Exam

ALGEBRA 2 HONORS (NCAA)

This course is the honors version of Algebra 2. Students in this program must display a strong work ethic and a desire to explore topics at a deeper level. Students will take the Algebra 2 Regents exam in June.

Prerequisite: Successful completion of the Geometry Honors course and the Geometry Regents exam, 1 credit
Final Assessment: Algebra 2 Regents Exam

INTERMEDIATE ALGEBRA (NCAA)

Intermediate Algebra satisfies the third mathematics sequence required for graduation with a Regents Diploma. Participation in this program will not lead a student to fulfilling the requirements for the Regents Diploma with Advanced Designation. Topics include extended algebraic concepts learned in previous courses, rational expressions, functions, radicals, exponents, logarithms, complex numbers, probability, right triangle trigonometry functions, equations and applications. This is a non-regents course.

Prerequisites: Successful completion of Geometry or Applied Geometry as well as the Algebra 1 Regents exam, 1 credit.

MATH 4 (NCAA)

This course offers a variety of advanced mathematics topics to prepare students for college-level mathematics. This is a fourth level course that will incorporate specific targeted skill and content development. Topics covered include higher level equations, graphing techniques, systems of equations, matrices, and the study of many different functions including trigonometric, polynomial, rational, conic, exponential and logarithmic. Throughout this course an emphasis on reasoning and problem solving to address real-life connections will be stressed, as well as nurturing the ability to effectively communicate, and justify results.

Prerequisite: Successful completion of either Intermediate Algebra or Algebra 2/IB Mathematics Applications and Interpretation SL 1 as well as the Algebra 1 Regents exam, 1 credit.

PRE-CALCULUS (NCAA)
This course prepares students for Advanced Placement Calculus AB and/or first semester college calculus. Topics covered include polar coordinates, vectors and determinants, sequences and series, and approximately five weeks of calculus. This course is a prerequisite for Advanced Placement Calculus AB.

Prerequisite: Successful completion of the Algebra 2 Regents exam as well as the Algebra 2 or Algebra 2/IB Math Applications and Interpretation SL 1 course, 1 credit

IB MATHEMATICS APPLICATIONS AND INTERPRETATION SL 2 (NCAA)

This is the second year of the two year IB Math Studies requirement for the IB Diploma. This course is designed for students with varied mathematical backgrounds and whose main interests lie outside the field of mathematics. Students in this course will study numbers and algebra, sets and logic, geometry and trigonometry, statistics and probability, functions, financial math, and an introduction to differential calculus. The emphasis of this course is the application of mathematical process to real-life situations. The program requires students to complete an internal assessment which is an undertaking of an investigation of a mathematical nature with teacher supervision. This project will enable the mastery of skills learned during the course and develop the students' abilities to ask their own questions about mathematics.

Prerequisite: Algebra2/IB Mathematics Applications and Interpretation SL 1 or Algebra 2 Honors course
Final Assessment: IB Math Applications and Interpretation exam

IB MATHEMATICS ANALYSIS AND APPROACHES SL 1 (NCAA)

This is the first year of a two year course designed for students who already possess a strong background knowledge of basic math. IB Math SL is designed so that students will study a breadth of mathematical topics, rather than several topics in depth. Topics include, but are not limited to, advanced algebra, functions and equations, circular functions and trigonometry, vectors, statistics and probability, and basic calculus. The program requires students to undertake an investigation of a mathematical nature with teacher supervision. This project will enable the mastery of skills learned during the course and develop the students' abilities to ask their own questions about mathematics. Students must use a graphing calculator in this course.

Prerequisite: Completion of Algebra 2 Honors class and regents, 1 credit

AP CALCULUS AB / IB MATHEMATICS ANALYSIS AND APPROACHES SL 2 (NCAA)

This is the second year course opened to accelerated math students with exceptional math ability. Topics studied include but are not limited to: limits and continuity; derivatives and their applications; integration and its applications; transcendental functions; differential equations. Students must use the graphing calculator in this course. Students will have the option of earning credit towards the IB diploma and/or AP through final assessments.

Prerequisite: Pre AP Calc. AB or IB Math Analysis and Approaches SL 1, 1 credit
Final Assessment: AP Calculus AB exam and/or IB Mathematics Analysis and Approaches SL exam

AP CALCULUS BC / MATHEMATICS ANALYSIS AND APPROACHES SL 2 (NCAA)

This is the second year course opened to accelerated students who have achieved mastery in IB Mathematics Analysis and Approaches SL 1 and have a serious interest in mathematics and/or science. AB Calculus BC/IB Mathematics Analysis and Approaches SL 2 is a full year course in the calculus of functions of a single variable. It includes all topics taught in AP Calculus AB plus additional topics including but not limited to: polar, parametric, and vector functions and their derivatives; integration by parts or partial fractions; sequences and series. Students must use the graphing calculator in this course. Students will have the option of earning credit towards the IB diploma and/or AP through final assessments.

Prerequisite: 85% or better average in IB Mathematics Analysis and Approaches SL 1, 1 credit
Final Assessment: AP Calculus BC exam and/or IB Mathematics Analysis and Approaches SL exam

AP STATISTICS (NCAA)

In this course students will learn how to collect, organize, analyze and interpret numerical information from data. The understanding of statistics provided through this course will allow students to successfully navigate our complex information age in which statistical concepts are everywhere. Students will have the opportunity to engage in self-directed and teacher-directed projects designed to increase their depth of statistical understanding. The AP exam is given during May. Those who successfully pass this exam may apply to the college of their choice for advanced placement credit or standing.

Prerequisite: A minimum average of 85% in Algebra 2 Honors or Algebra2/IB Math Applications and Interpretation SL 1, as well as successful completion of the Algebra 2 Regents exam, 1 credit
Final Assessment: AP Statistics Exam

SCIENCE

EARTH SCIENCE (NCAA)

Earth Science is the study of the materials, processes, and history of the planet earth as well as its environment in space. Closely related to the natural environment, it is an integrated, interdisciplinary science that builds on the background of science acquired in the earlier grades. The major topics covered are geology, meteorology, weathering, erosion, landscape development, earth-moon motions, measurement of the earth, and energy transfer. Students taking this course must complete a minimum of 1,200 minutes of lab time as well as the accompanying reports, and then will be eligible to take the Regents examination in June.

Prerequisite: None
Open to grades 9-12, 1 credit

THE LIVING ENVIRONMENT (BIOLOGY) (NCAA)

Living Environment presents a conceptual and inquiry (lab) approach to the study of living organisms and their environment. The areas of study include cells, biochemistry, ecology, evolution, genetics, reproduction and development, and human physiology. The course follows the New York State Regents Living Environment Syllabus. Students selecting this course should possess good reading skills. Students must complete a minimum 1,200 minutes of lab time as well as the accompanying reports, and then will be eligible to take the Regents examination in June.

Prerequisite: None
Open to grades 9-12, 1 credit

AP BIOLOGY (NCAA)

This course is equivalent to an introductory college biology course. It is for the science-oriented student who has demonstrated exceptional achievement in previous science courses and wishes to broaden their knowledge in Biology. The major topics of study (biochemistry, cell structure energetics, Mendelian and molecular genetics, evolution and ecology) will be interwoven within the four “Big Ideas” of biology: 1 The process of evolution drives the diversity and unity of life, 2 Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis, 3 Living systems store, retrieve, transmit and respond to information essential for life processes and 4 Biological systems interact and these systems and their interactions possess complex properties. This course involves intensive reading and out of class preparation, lecture and content related discussions, as well as a rigorous laboratory component. Students will be engaged in laboratory activity for approximately half of class time. Students completing this course are expected to sit for the AP Biology exam in May, and will then become eligible to earn up to 8 college credits.

Prerequisite: Regents Biology and Regents Chemistry
Open to grades 11-12, 1 credit

IB BIOLOGY 1 SL/HL (NCAA)

IB Biology Higher Level (HL) 1 is the first year of a two-year course focusing on core concepts common to both SL and HL levels. Students learn about cell theory, the chemistry of living things, plant science, genetics, health and human physiology and the relationship of structure and function of living organisms at all levels of complexity, among many other topics to further their understanding of and learning about biology Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context. At the end of the first year, students must declare whether they will take the Standard Level (SL) or Higher Level (HL) exam.

Prerequisites: Regents Earth Science, Regents Chemistry
Open to Juniors

IB BIOLOGY 2 SL/HL (NCAA)

IB Biology Higher Level 2 is a continuation of IB Biology Higher Level 1. During the second year, common core concepts from the first year will be highlighted and supplemented with more in depth materials and additional topics unique to the higher level curriculum will be addressed. Students will continue to engage in creative inquiry style laboratory investigations. At the end of the second year, students will take the HL exam unless they declared the SL level exam at the end of the first year.

Prerequisites: IB Biology 1 SL/HL
Open to Seniors (as a continuation)

IB ENVIRONMENTAL SYSTEMS AND SOCIETY SL (NCAA)

The IB DP environmental systems and societies standard level course aims to provide students with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. Students' attention is constantly drawn to their own relationship with their environment and the significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies, rather than a purely journalistic appreciation of environmental issues. The teaching approach strives to be conducive to students evaluating the scientific, ethical and socio-political aspects of issues.

Prerequisite: None
Open to grades 11-12, 1 credit

CHEMISTRY (NCAA)

This course is designed to be the third course in science for the college-bound student**.** It is a math oriented, cumulative course. Students taking this course will be equipped with more advanced concepts and techniques of chemistry and will be adequately prepared to take Advanced Placement Chemistry. Students study topics in atomic structure, periodic table, bonding, gas laws, kinetics, thermodynamics, equilibrium, acid/base, oxidation-reduction, nuclear and organic chemistry. Students must complete a minimum of 1,200 minutes of lab time as well as the accompanying reports, and then will be eligible to take the Regents examination in June.

Suggested Criteria for Success: Algebra Regents exam score of 80% or higher
Living Environment Regents exam score of 80% or higher

Prerequisite: Two Regents science credits and two high school math credits
Open to grades 10-12, 1 credit

AP CHEMISTRY (NCAA)

Advanced Placement Chemistry is the equivalent of freshmen level college chemistry. The course is open to anyone looking to broaden their exposure and skill level in a laboratory oriented physical science. Four major themes of study are:

1. Stoichiometry – the study of the mole relationships in chemical reactions
2. Thermodynamics – the study of why reactions occur
3. Kinetics – the study of the rate of reactions
4. Equilibrium – the study of how forward and reverse reactions compete.

A balance between theoretical and laboratory work is sought, with about half of class time spent in the lab. Students completing this course are expected to sit for the AP Chemistry exam, and will then become eligible to earn up to 8 college credits. Students are also encouraged to take physics before AP Chemistry, but this should not be considered a deterrent to enrolling. Any students unsure about their ability to take this course are encouraged to consult with the instructor.
Prerequisite: Successful completion of Regents Chemistry
Open to grades 11-12, 1 credit

IB CHEMISTRY SL (NCAA)

The focus of IB Chemistry SL is a deeper understanding of the subject of inorganic chemistry with a brief introduction to organic chemistry. The course emphasizes problem solving. The primary topics covered are atomic theory, bonding, gas laws, thermodynamics, liquid and solid states, kinetics, equilibrium, acids and bases, and electrochemistry. Approximately 30-50 percent of class time will be devoted to laboratory activities. The course will be assessed according to IB assessment standards. Students may take the course as part of the IB Diploma program or for an IB Course Certificate.

Prerequisites: NYS Earth Science Regents and NYS Living Environment Regents
Open to: Grades 11 and 12

PHYSICS (NCAA)

This course is for those who are completing a science major. College-bound students should strongly consider this course as the completion of their college preparation in the sciences. Physics is a laboratory-oriented program that includes topics such as motion, electricity, magnetism, waves and light, and nuclear physics. Mathematical and logical problem-solving skills underlie the entire course of study. Students must complete a minimum of 1,200 minutes of lab time as well as the accompanying reports, and then will be eligible to take the Regents examination in June.

Prerequisite: At least 2 credits of high school math
Open to grades 11-12, 1 credit

AP PHYSICS 1 (NCAA)

This course is designed as a first- year physics course, open to all students. The course curriculum includes studies of mechanics. The course is algebra based, and it is strongly recommended that participating students have strong math skills. Students who complete the course may sit for the AP Physics 1 exam to potentially earn college credit.

Prerequisite: Algebra, trigonometry or a science or math teacher's recommendation.

AP PHYSICS 2 (NCAA)

This course is designed as a second year college physics course, following AP Physics 1. It is open to all students who have successfully passed AP Physics 1. The curriculum includes fluids, thermodynamics, electricity and magnetism, optics, and modern physics. The course is algebra based. Students who take the course may sit for the AP Physics 2 exam to potentially earn college credit.

Prerequisite: AP Physics 1

AP PHYSICS C (NCAA)

This course ordinarily forms the first part of the college sequence of Physics courses taken by students majoring in engineering or the physical sciences. This is a calculus-based course, and methods of calculus are applied wherever appropriate in developing formulas and solving problems. This is a more intensive and analytical course than Physics 1. The subject matter is that of the first semester of college physics, which is mechanics. Multiple labs will be done. Students enrolling in this course should have already taken one course in Physics (Regents Physics or Physics B) and should be at least concurrently enrolled in calculus. Students completing this course may sit for the AP Physics C Mechanics Exam, and will then become eligible to earn up to 4 college credits.

Prerequisite: Physics or Physics 1, Calculus or concurrent enrollment therein.
Open to grades 11-12, 1 credit

WILDLIFE ECOLOGY (NCAA)

Wildlife Ecology is designed to help students meet the need for a third year of science. Wildlife Ecology is an interactive course where students use and develop their previous science experiences. The course is a unique combination of field biology, ecology, environmental chemistry, and environmental science.

The course is designed to take general ecological concepts learned in the classroom and apply those concepts to real life field work. Some learning will take place outdoors. Students should be prepared with appropriate attire for outdoor work. Research projects will be included in the course experience.

Wildlife Ecology I – Offered the first semester; focuses on species identification, major biomes, soil and water quality, invasive/endangered species, urban species, and micro ecosystem analysis, along with current issues in ecology.

Prerequisite: Living Environment
Open to grades 11-12, 1/2 credit

Wildlife Ecology II- Offered the second semester; focuses on sustainability of wildlife and its environment; including current issues in ecology.

Prerequisite: Living Environment
Wildlife Ecology I is not required to take Wildlife Ecology II but is recommended.

Open to grades 11-12, 1/2 credit

AP ENVIRONMENTAL SCIENCE (NCAA)

This is a field course which will allow for application of understandings from many areas of science, such as geology, biology, chemistry, geography, and environmental science. The course is very similar to Wildlife Ecology, except that topics are covered in more detail and with greater depth. Students completing this course are expected to sit for the AP Environmental Science exam, and will then become eligible to earn up to 4 college credits.
The instructor and the AP College Board both recommend the following prerequisites:

- Two years of high school science – one year of life science and one of physical science (e.g., living environment and earth science, or living environment and chemistry).
- NYS Integrated Algebra

Open to grades 11-12, 1 credit

OCEANOGRAPHY: Fall (NCAA)

A scientific study of the "Water Planet". Course topics include history of oceans, ocean geography, chemical and physical properties of the oceans, tides, currents, marine environments, ocean resources, and current threats to the oceans. The class is taught through a mix of textbook lessons, hands-on activities, and video media.

Open to grades 11 and 12, 1/2 credit

MARINE BIOLOGY: Spring Semester (NCAA)

The Oceans and their coastal areas form the largest biome on Earth. This course studies this biome and the species that live there. Plankton, nekton, and benthic organisms are examined. Special attention is paid to the challenges faced by marine species in the modern world. The class is taught through a mix of textbook lessons, hands-on activities, and video media.

Open to grades 11 and 12, 1/2 credit

SOCIAL STUDIES

GLOBAL HISTORY & GEOGRAPHY 9 (NCAA)

Global History 9 is the first year of a two-year study of the world's history. Global 9 begins with a look at the world's earliest peoples and ends with an examination of evolving political, economic, and social ideas and systems. Students will explore the first agricultural revolution, the rise and fall of great empires, the world's great religions, major cultural movements and the rise of Europe during the Age of Discovery. Students will examine primary source material and document the increasing historical interactions among Asia, Africa, Latin America, Europe and the Middle East until about 1750.

Prerequisite: None
Open to grade 9, 1 credit

GLOBAL HISTORY & GEOGRAPHY 9 H (NCAA)

This upper level Global History & Geography course satisfies all of the demands of the New York State Social Studies Framework for grade 9 but is designed as a precursor to the AP and IB history courses offered in 10th-11th-12th grades. Increased focus will be on developing the skills necessary to successfully transition to the pace and rigor of the AP/IB courses.

Prerequisite: Student should demonstrate a strong work ethic and an interest in Global History. A final average of 90 or better in grade 8 Social Studies and teacher/counselor recommendation is suggested for the course.
Open to grade 9, 1 credit

GLOBAL HISTORY & GEOGRAPHY 10 (NCAA)

Global History 10 focuses on world history from 1750-present. Students will examine nineteenth century European imperialism, two global wars, the rise of communism, colonial nationalism and revolution, the Cold War, the fall of Soviet communism and global interdependence. Students will explore current global issues such as the spread of nuclear weapons, international pollution, economic interdependence, ethnic strife and terrorism, child labor and the search for peace and security in the Middle East. Students take the New York State Global History and Geography Regents New Framework examination in June.

Prerequisite: Global History 9
Open to grade 10, 1 credit

AP WORLD HISTORY (NCAA)

AP World History is a rigorous study of the history of the world from the many perspectives of a historian. Students will examine the conventional historical thinking about the influence of geography, the impact of technology, the movements of peoples and the development of political, economic, social and religious systems on states and peoples.

Students take the AP World History College Board examination in May (there is a fee). Many colleges grant credit (up to six hours) and/or course exemptions when AP scores are satisfactory. Course work following the AP exam will include projects and preparation for the New York State Global History and Geography Regents exam.

Prerequisite: Honors Global History & Geography 9 or Global History & Geography 9 with strong teacher/counselor recommendation
Open to grade 10, 1 credit

U.S. HISTORY AND GOVERNMENT (NCAA)

U.S. History and Government is a chronologically organized course in U. S. history and a study of the principles of government in the United States. During the first semester, students study the United States Constitution and selected historical periods prior to 1900. The second semester focuses on the nation's development from the turn-of-the-century industrial era to current issues facing the United States. The course concludes with the New York State Regents examination (new framework).

Prerequisite: Successful completion of Global History two year program
Open to grade 11, 1 credit

IB HISTORY HL Year 1 HL/AP US HISTORY (coseated) (NCAA)

AP U.S. History/IB History 1 is a coseated course focusing on the development of the United States. Students learn the intricacies of the American republican form of government while also examining the role of the U.S. in world affairs. The course begins with 15th century Spanish colonization and ends with the modern era. During the course, students read a college level text, and analyze numerous primary sources, both written and audio-visual. Students are expected to write the Advanced Placement exam in May and then must take the New York State Regents exam in June. In the senior year, students take the second half of the course and write the International Baccalaureate exam.

Prerequisite: AP World History or Global History & Geography 10
Open to grade 11, 1 credit

IB HISTORY HL Year 2 (NCAA)

IB History 2 will focus on a variety of events and topics taking place across the globe, beginning with the 1930's and ending with the fall of the Soviet Union in 1991. This course will look at the rise of authoritarian leaders in the 20th century in Europe, Asia, and Latin America. It will look at the key events leading to start of World War II and how the Cold War impacted the world. The unique feature of this course is that it analyzes events from different perspectives. Because the world is interconnected, it is important to understand how events in the world affect many nations. This class will analyze what those effects were and while doing this, develop the higher level thinking skills necessary for success after high school. Successful completion of both IB History 1 and 2 will also satisfy the requirements for Government and Economics in New York State.

Course Prerequisite: IB History 1
Open to grade 12, 1 credit

GOVERNMENT (NCAA)

One-half of the grade twelve social studies program is a course in Government. The course will explore the fundamental mechanics/workings of American government. Students will analyze the contrast between the need to balance individual liberties and states' rights with the need to govern at the federal level. As members of the next voting generation, it is a civic responsibility to continue the American democratic tradition. This course will encourage students to become educated decision makers through active involvement, critical thinking, and informed debate. Actual participation during and outside of class is essential for a student to be successful in this course. Successful completion of this course (or AP Government & Politics with Economics or IB History HL Years 1 & 2) is necessary for graduation.

Prerequisite: None
Open to grade 12, 1/2 credit

ECONOMICS (NCAA)

The study of economics is the study of choices. This semester-long course is designed to make informed consumers, competent decision-makers, and effective participants in the global economy. In this course students will be required to demonstrate an understanding of major ideas, themes, and policies in economics from a variety of perspectives. The Economics course was created to enable students to be familiar with current issues in today's global economy as well develop an understanding of major ideas, themes and policies related to economics. Successful completion of this course (or AP Government & Politics with Economics or IB History HL Years 1&2) is necessary for graduation.

Prerequisite: None
Open to grade 12, 1/2 credit

AP US GOVERNMENT AND POLITICS (NCAA) with Economics

Advanced Placement courses are college-level courses in the high school program under the direction of the National College Board. This full year course provides an analytical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. Students take the College Board Examination in May (fee). Many colleges grant credit (up to 3 hours) and /or course exemptions when AP scores are satisfactory. The course fulfills the New York State requirement for the senior Government and Economics courses.

Prerequisite: US History
Open to grades 11-12, 1 credit

SOCIAL STUDIES ELECTIVES

CRIME AND JUSTICE (NCAA)

This course provides students with the opportunity to explore the major components of the United States justice system. Units of study include the history of crime and punishment, the constitutional basis for laws, civil rights, police work, the legal system, and corrections. Students participate in a mock trial as their final exam.

Prerequisite: None
Open to grades 11-12, 1/2 credit

INTRODUCTION TO SOCIOLOGY (NCAA)

Can group pressure influence ordinary people to treat others differently? What is normal behavior? Are criminals born or made? Students fascinated by these questions and who wish to look into a career in social work are encouraged to take Introduction to Sociology. This course acquaints the student with the principles of sociology, the social environment we live in and our daily interactions with one another.

Prerequisite: None
Open to grades 11-12; 1/2 credit

GENOCIDE STUDIES (NCAA)

Genocide Studies will examine issues relating to past and current genocides. Students will examine how genocides start and identify patterns and characteristics of genocide. Students will study the genocides of Native Americans and the Armenians to gain an understanding that the Holocaust was not the first genocide. Much of the focus of this course is the Jewish Holocaust of the 1940s, which students will study in depth. During the course students will consider issues such as resistance; liberation and forgiveness. Finally the course will examine other genocides that occurred after the Holocaust, such as those in Cambodia, Rwanda and Bosnia.

Prerequisite: Global History II
Open to grades 11-12, 1/2 credit

AMERICAN MILITARY HISTORY (NCAA)

The semester military history course will study the United States in international conflicts from the French & Indian War to the modern Middle Eastern conflict. Students will study the individuals and events to build a deeper understanding of the impact of these foreign policy events on American history.

Prerequisite: Global History I
Open to grades 9-12, 1/2 credit

PSYCHOLOGY (NCAA)

The semester psychology course is aimed at introducing the field of psychology and human behavior. It is open to 9th and 10th grade students and will study research methodology, human development, personality, mental health, and group dynamics. As a 9th-10th grade elective, the hope is also to encourage students to consider taking IB Psychology as a junior.

Prerequisite: none
Open to grades 9-10, 1/2 credit

IB PSYCHOLOGY HL Year 1 (NCAA)

A course for juniors, IB Psychology is the study of human thought and behavior. IB Psychology students will have an opportunity to achieve a greater understanding of themselves and their environment through in-depth investigations of various topics in psychology. The course focuses on the biological, cognitive, and sociocultural influences on human behavior. Students will study diverse topics such as the nature/nurture debate, how brain and body chemistry affect behavior, memory, decision-making, and how groups influence us. This is a two year course during which students will have an opportunity to conduct further research into a topic that interests them, planning and carrying out an experiment of their own. This is an interesting course in which debate, discussion, and independent thinking is encouraged. Students do not need to have prior knowledge in psychology.

Credit Options: Although this is a two year course offered as a route to the IB diploma, students will have an option elective credit upon completion of the first year without continuing into the second year. Note: only juniors are eligible for IB Psychology HL Year 1.

Prerequisite: None
Open to grade 11 only, 1 credit

IB PSYCHOLOGY HL Year 2 (NCAA)

This course continues the study from IB Psychology HL Year 1 by utilizing students' expertise in psychology to analyze special topics in the field. These topics include: psychological disorders and treatment, human relationships, and human development. In the second year, students will carry out their own psychological experiment. Completion of the second year of HL psychology will prepare students to sit for the IB Psychology HL exam.

Prerequisite: IB Psychology HL Year 1
Open to grade 12 only, 1 credit

WORLD LANGUAGES

In accordance with the New York State World Language syllabus, programs in French and Spanish focus on the development of proficiencies in listening, speaking, reading and writing. An appreciation and understanding of the target culture is also integrated into each world language class.

Ninth grade students who have successfully completed the seventh and eighth grade levels in a modern foreign language will move into French II or Spanish II.

FRENCH I (NCAA)
SPANISH I (NCAA)

Students in this course either have no prior instruction in a language other than English or have not yet achieved proficiency in the target language as measured by the Checkpoint A Examination. These two groups of students interact with similar material in a variety of ways through the use of differentiated instruction. Students with no prior knowledge learn about the culture of the countries and how to communicate in the world language through listening, speaking, reading, and writing. All vocabulary is introduced topically using authentic materials and experiences. At the end of the course, students will be able to communicate in the target language at a basic level of proficiency. Upon successful completion of this course, students will have earned the one unit of credit in a world language other than English to fulfill the world language requirement for the Regents diploma.

Prerequisite: None
Open to grades 9-12, 1 credit
Examination: Checkpoint A Exam

FRENCH II (NCAA)
SPANISH II (NCAA)

Students further develop their understanding and use of speaking and listening skills in communicative settings. They must read authentic material and write guided compositions. The curriculum also includes cultural enrichment of the respective countries.

Prerequisite: Level I or Grade levels 7 and 8 and passing the Checkpoint A exam
Open to grades 9-12, 1 credit
Examination: Local

FRENCH III (NCAA)
SPANISH III (NCAA)

Learning from the communicative approach, students continue to develop skills. They begin to express original ideas using familiar vocabulary and a variety of grammatical structures. They also improve their reading skills through the use of authentic and culturally relevant materials. Students further develop their writing skills through composition and a variety of creative projects.

Prerequisite: Level II
Open to grades 10-12; 1 credit
Examination: Checkpoint B exam

FRENCH IV (NCAA)
SPANISH IV (NCAA)

The emphasis of this course is on the refinement of listening, speaking, reading, and writing skills through the communicative approach. Students must sustain a conversation with improved fluency and read material derived from a variety of authentic sources, including periodicals, informational material, and appropriate literary selections. Students will use the foreign language as they engage in researching and reporting on various topics of interest. Students in level IV may elect to receive dual credit through Monroe Community College for French or Spanish. Successful completion of the MCC requirements will then allow students to receive three college credits. These credits are transferable to most postsecondary institutions; however, students are responsible for verifying if their chosen college accepts transfer credits. A fee is payable to MCC (see page 10). All course work and testing is done in class with the regular Churchville-Chili teacher.

Prerequisite: Level III and passing the Checkpoint B exam
Open to grades 11-12, 1 (high school) credit
Optional: 3 MCC credits
Examination: MCC exam

FRENCH V (NCAA)
SPANISH V (NCAA)

Level V is available for experienced and interested language students who want to increase their fluency, creativity, and proficiency in all four language skills (listening, reading, writing, and speaking). Students must demonstrate their understanding of the language in a variety of settings. Students compose unified and organized texts on everyday topics with sufficient vocabulary to express themselves simply and clearly. Students in level V may elect to receive dual credit through Monroe Community College for French or Spanish. They may register for
these credits whether or not they chose the option in level IV. Successful completion of the MCC requirements will then allow the student to receive three college credits. These credits are transferable to most postsecondary institutions; however, students are responsible for verifying if their chosen college accepts transfer credits. A fee is payable to MCC (see page 10). All course work and testing is done in class with the regular Churchville-Chili teacher.

Prerequisite: Level IV or IB SL 1
Open to grade 12, 1 (high school) credit
Optional: 3 MCC credits
Examination: MCC exam

IB FRENCH SL 1 (NCAA)
IB SPANISH SL 1 (NCAA)

IB Spanish I and IB French I are the first year courses of the two-year college level sequence. In these courses students will explore higher level language structures as applied to speaking, listening, reading and writing skills. Students who enter the IB course must have the recommendation of their level III teacher as well as a grade of 85 or higher on both the Checkpoint B exam and in their level III course. Students should have an exceptionally high skill level in listening, speaking, reading and writing in the language. IB will require students to move through a fast-paced curriculum that demands lengthy reading and writing assignments. Authentic audio and video resources will also be used as a means of acquainting students with native accents. Students who are considering this course should be self-motivated, independent learners who can succeed in a demanding academic environment.

Prerequisite: Level III French or Spanish. 85+ on the Checkpoint B exam and final course average in the level III language, plus recommendation of level III language teacher is recommended.
Open to grade 11 (1 credit)
Examination: local

IB FRENCH SL 2 (NCAA)
IB SPANISH SL 2 (NCAA)

IB Spanish and IB French II are the second year courses of the two-year college level sequence. In these courses, students will continue to explore higher-level language structures as applied to speaking, listening, reading and writing skills. Students who enroll need to have an above average skill level in the language as determined by teacher recommendation and successful completion of IB level I. Students take the IB assessment throughout this course culminating in May. There is a fee to take the IB assessment. Several colleges grant credit or course exemptions depending upon the score achieved on the assessment. Students are responsible for checking on the policy of their chosen college in regards to IB credit.

Prerequisite: Students must have successfully completed IB level I course.
Open to grade 12, 1 credit
Examination: IB assessment and local project.