



Ballston Spa High School
PROGRAM PLANNING GUIDE
2022-2023

Ballston Spa High School

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Mission Statement

The Ballston Spa Central School District will provide an excellent education that maximizes the potential of each student. In partnership with the family and community, our students will become responsible and well-rounded adults.

Connect With Us



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2021 Class Profile

Class Size

279

Graduation
Rate

90%

Future
Plans

80%

4 Year **50%**

2 Year **30%**

Military **1%**

Achieve Regents Diploma

40%

Advanced Regents/Honors
& Mastery with Honors

3%

Advanced Regents
with Honors

22%

Regents with Honors

35%

SAT Testing Mean Scores

2020	National	State	Ballston Spa
Critical Reading & Writing	533	526	572
Mathematics	528	531	592

AP Scholars	55
AP Scholar with Distinction Award	11
AP Scholar with Honor Award	8
AP Scholar Award	12

District Achievements

Suburban Council
Athletic Teams

27

Clubs

27

Participated in NYSSMA
Solo Music Festivals

100+

NYSPPSAA
Scholar-Athlete Team
Status

21/27



2021 College and University Acceptances

State University of New York

University Centers

Albany
Binghamton
Buffalo
Stony Brook

Colleges of Arts & Sciences

Brockport
Buffalo State
Cortland
Fredonia
Geneseo
Maritime
Morrisville
New Paltz
Oneonta
Oswego
Plattsburgh
Purchase
Potsdam

Colleges of Technology

Alfred
Canton
Cobleskill
Delhi
Polytechnic Institute

Community Colleges

Adirondack
Fulton-Montgomery
Herkimer
Hudson Valley
Mohawk Valley
Onondaga
Schenectady

New York State Private Colleges and Universities

Albany College of Pharmacy
Aldephi University
Alfred University
American Musical & Dramatic Academy
Aesthetic Science Institute
Cazenovia College
Clarkson University
Colgate University
CUNY - Bernard M Baruch College
CUNY - Hunter College
CUNY - Macaulay Honors College
CUNY - Queens College
Elmira College
Fordham University
Hamilton College
Hartwick College
Hobart William and Smith Colleges
Hofstra University
Iona College
Ithaca College
Keuka College
Le Moyne College

Manhattanville College
Marist College
Marymount Manhattan College
Nazareth College
New York Film Academy - New York City
Pace University, New York City
Paul Smith's College
Pratt Institute
Rensselaer Polytechnic Institute
Roberts Wesleyan College
Rochester Institute of Technology
Russell Sage College
Sage College of Albany
Siena College
St. Bonaventure University
St. John Fisher College
St. John's University
St. Lawrence University
Syracuse University
The College of St. Rose
Union College
University of Rochester
Utica College
Vassar College
Wells College

Out of State Colleges, Universities and Academies

Anna Maria College
Arizona State University - Tempe
Assumption University
Becker College
Bentley University
Boston College
Boston University
California State Polytechnic University
California State University - Fresno
Carnegie Mellon University
Castleton University
Champlain College
Clemson University
Coastal Carolina University
Colorado State University - Fort Collins
College of Charleston
Cornell University
Drezel University
Duke University
Eastern University
East Carolina University
Eckerd College
Embry-Riddle Aeronautical University
Fairfield University
Florida Southern College
Florida State University
Framingham State University
Franklin Pierce University
Frostburg State University
George Mason University
George Washington University
Harvard College
Iowa State University
James Madison University
Johnson & Wales University - Providence

Kansas State University
Keene State College
Lasell University
Lesley University
Loughborough University
Marywood University
Massachusetts College of Liberal Arts
Massachusetts College of Technology
McGill University
Merrimack College
Mercyhurst University
Michigan State University
Monmouth University
North Carolina State University at Raleigh
Northeastern University
Pennsylvania State University
Point Park University
Princeton University
Purdue University
Quinnipiac University
Rhode Island College
Roger Willaims Univeristy
Saint Michael's Colege
Salisbury University
San Diego State University
Seton Hall University
Southern Connecticut State University
Springfield College
Temple University
Texas A&M University
Texas Christian University
Texas State University
Texas Tech University
University of Alabama at Birmingham
University of Arkansas

University of Arizona
University of California
University of Connecticut
University of Delaware
University of Georgia
University of Hartford
University of Houston
University of Kentucky
University of Louisville
University of Maine
University of Massachusetts, Amherst
University of Minnesota
University of New Hampshire, Durham
University of New Haven
University of North Carolina
University of Notre Dame
University of Pennsylvania
University of Pittsburgh
University of Rhode Island
University of Richmond
University of Tampa
University of Vermont
University of Washington - Madison
Villanova University
Virginia Military Institute
Virginia Polytechnic Institute
Wake Forest University
Wellesley College
West Liberty University
Western New England University
Willaim and Mary
Woodbury University
Worcester Polytechnic Institute

Timeline for Planning

When planning your high school program it's important to take into consideration your special abilities, interests, and goals. In addition to traditional course offerings, Ballston Spa High School offers a variety of highly specialized programs and curriculum choices that enhance students' career and college readiness. Each student has a counselor to assist in planning a student's high school program, and we encourage students and parents to be active members of the academic and scheduling process. For additional information about the programs we offer see the calendar below. This information is also posted on our website.

Dates	Events
January 31, 2022	International Baccalaureate Diploma Programme Candidate applications are due for interested sophomores.
February 2022	Program Planning Guide is posted on the high school website. Students should start their course selection planning with their parents during this period by reading about possible course options.
February 2022	Parents receive a letter regarding the course selection process, which includes teacher course recommendations.
February 28 - March 17, 2022	Students are scheduled to meet with their counselor to review their course recommendations and options to help make their course selections. Note: Course offerings are based on enrollment and are subject to final budget approval. It may not be possible to offer all courses listed in the Program Planning Guide due to enrollment or fiscal considerations.
February - April 2022	Meetings are scheduled with parents who wish to discuss courses at a higher level than what the student was recommended for.
March 3, 2022	8th grade parent night with school administrators on transitioning to the high school and curriculum choices, including AP World History.
April 2022	Student course requests are mailed home for parental review and discussion.
March 11, 2022	BOCES CTE Enrollment Applications are due for senior year.
April 1, 2022	BOCES CTE Enrollment Applications are due for junior year
May 6, 2022	Last day to submit course change requests. Note: Change requests must be received in the guidance office by 3 p.m.
May/June 2022	Students will be informed of unfulfilled requests and meet with counselors to resolve conflicts.
July 2022	List of courses scheduled for the 2022-2023 school year are mailed home with student's report card.
First Day of School	Students receive schedules in homeroom (freshmen will receive their first copy at 9th Grade Orientation).

Four-Year Planning Worksheets

This form is provided to help students and families plan for required courses and to prioritize electives for each school year.

Ballston Spa High School offers a variety of academic programs. It is important to take the time to review options that may be available to you in high school so that you can make the best choices based on your academic talents, interests, needs and career goals. This Program Planning Guide provides detailed information on Advanced Placement (AP) and College/University in the High School (CHS/UHS) offerings, our International Baccalaureate Diploma Programme (IBDP), our Clean Technologies & Sustainable Industries Early College High School (ECHS), and Career and Technology Education (CTE) career pathways. Take the time to read course/program descriptions and make informed decisions when selecting courses.

8 th GRADE	Credits	Credits
-----------------------	---------	---------

LOTE^{*}: _____

Art/Music^{**}: _____

9 th GRADE	Credits	10 th GRADE	Credits
-----------------------	---------	------------------------	---------

1. English: _____

1. English: _____

2. Global History: _____

2. Global History: _____

3. Math^{***}: _____

3. Math^{***}: _____

4. Science: _____

4. Science: _____

5. Physical Education: _____

5. Physical Education: _____

6. LOTE: _____

6. LOTE: _____

7. _____

7. Health (half year course) / _____

8. _____

8. _____

11 th GRADE	Credits	12 th GRADE	Credits
------------------------	---------	------------------------	---------

1. English: _____

1. English: _____

2. U.S. History: _____

2. Economics/Government: _____

3. Math: _____

3. _____

4. Science: _____

4. _____

5. Physical Education: _____

5. Physical Education: _____

6. _____

6. _____

7. _____

7. _____

8. _____

8. _____

* Advanced Regents Diploma- Requires a 3 credit sequence in LOTE or a 5 credit sequence in Art, Music, Fine Arts, or CTE. Many students earn 1 credit of LOTE in 8th grade.

** All students must earn one credit of Art/Music. Options include Band, Orchestra, Studio in Art, Music in Our Lives, Introduction to Design & Drawing for Production and Introduction to Theatre. Many students earn this required credit in 8th grade.

*** A math course with a lab will use an additional scheduling period.

General Information

SchoolTool/Parent Portal

SchoolTool is a student management system used by the district. It is the most up to date source for information on grades and attendance. With a Parent Portal account, parents/guardians have access to the following student information:

- Student Records (basic information)
- Contact Information
- Schedule
- Attendance (daily course absences)
- Grades (marking period averages and final grades)
- Assignment grades
- Email communication with teachers and counselors

Student Grading Policy

The report card is a record of the student's achievement and effort for each course taken. Final grades are determined by averaging the marks received at the close of each 10 week marking period with the final examination for full year courses. Final grades for half year (one semester) courses are determined by doubling each quarter mark and averaging the four marks with the final examination mark.

Honor Roll

An Honor Roll is printed after each 10 week marking period. A student must attain an average of 85.00 for Honor Roll, 90.00 for High Honor Roll, or 95.00 for the Principal's List. Incompletes or failures automatically exclude students from the Honor Roll. In addition, any work to receive credit must be completed within two weeks after the end of the marking period.

School Counseling

A staff of professional school counselors is available at the Ballston Spa High School to aid students with interpersonal development issues and in making wise choices regarding academic plans and career decisions. Counselors are available to meet with students in groups or individually to discuss academic planning, career opportunities, college information, and/or issues of personal concern. School counseling services include the assessment of educational, occupational, and personal/social strengths; referral to other pupil personnel and/or community agencies; career education; college information; letters of recommendation; and conferences which may include parents, teachers, administrators, and/or other staff members.

Enrollment in Courses

Students in grades 9-11 enroll in courses which total a minimum of seven periods. Students in grade 12 must enroll in a minimum of six periods.

Promotion Requirements

Grade placement is determined by the number of credits completed as follows:

- **To enter grade 10:** 5 units of credit to include 1 unit of English, 1 unit of Social Studies, and 1 unit of either Mathematics or Science
- **To enter grade 11:** 10 units of credit to include 2 units of English and Social Studies and at least 3 units in a combination of Math and Science
- **To enter grade 12:** 15 units of credit and the potential to graduate in June

Course Grade Policy for Credit Recovery and Accrual Programs

Students who fail a course or want to enroll in a course for credit accrual may have the option to earn course credit through an approved program. The following guidelines will apply:

- All credit recovery and accrual courses require the approval of the building Principal.
- In order to be eligible for a credit recovery program a student must have received a final course average of 50% or better during the school year.
- Students who successfully pass a credit recovery course will earn a final course grade of 65% on their transcript. The appropriate credit for this course will be reflected on the transcript.
- Students who successfully pass a course for credit accrual will receive the course grade as the final grade on the transcript. The appropriate credit for this course will be reflected on the transcript.

Course Selection

Our course offerings and master schedule are determined by student course selections made in the spring. Students are enrolled in courses based on teacher recommendation. Should a student or parent choose to select a higher level course than the recommendation indicates, the family must meet with a counselor and administrator by the 'request for change' deadline noted on the course selection sheet.

Ballston Spa High School will allow students to add/drop courses the third week of school. However, extenuating circumstances can develop that make it impossible for students to complete all the courses they have selected for any academic year. In response to these circumstances, we have developed the following guidelines:

- All add/drop requests must be approved by a parent/guardian, teacher, school counselor, and administrator.
- If a student is permitted to drop a course after the first three full weeks of the class, the course grade and drop is reflected on the transcript. For example, the transcript will denote "WP - withdrew pass" or "WF- withdrew fail."
- If a course level change is needed, then the grade(s) earned in the original course will be incorporated into the grade of the new course. The level change may not be reversed later in the year.

In all cases, students must maintain a full schedule of courses, i.e. 7 scheduled periods (6 scheduled periods for seniors) and all requirements for graduation must be met.



Graduation Requirements

Graduation from Ballston Spa High School requires the fulfillment of course and examination requirements as outlined by the New York State Board of Regents. In accordance with state and district standards, the high school offers three possible diplomas (Local, Regents, and Advanced Regents), with the possibility of additional accolades, and for students with disabilities, a NYS CDOS¹ Commencement Credential.

Course Requirements

Students must earn the following credits to graduate with one of the three possible diplomas.

	Regents or Local	Advanced Regents
English	4	4
Social Studies	4	4
Mathematics	3	3
Science	3	3
Art/Music	1	1
Health	.5	.5
Physical Education	2	2
Foreign Language	1	3
Electives	3.5	1.5
Total	22	22

Examination Requirements

Students must earn a minimum grade of 65% for ALL the following Regents exams:

Regents Diploma / Local Diploma (5 exams)

- English Regents
- Social Studies Regents
- One Math Regents
- One Science Regents
- One additional assessment from options above, a CTE assessment, or CDOS Commencement Credential

Advanced Regents Diploma (8 exams)

- English Regents
- Global History Regents
- U.S. History Regents
- Algebra I, Geometry and Algebra II Regents
- Two Science Regents

Notes:

¹Details about the NYS CDOS Commencement Credential on page 8.

²Examination requirements for a Local Diploma are the same as the Regents Diploma, except students with disabilities have the safety net option of scoring between 55-64 on all Regents exams. For students with disabilities, a score of 45-54 on a required Regents exam other than English and Math can be compensated with a score of 65% or above on another required Regents exam. In all cases, students must achieve at least a 55% on English and Math, and pass the course in the corresponding course.

^{2b}A student with a disability may appeal scores between 52 and 54 on up to two Regents exams in any discipline to graduate with a Local Diploma.

³Students who have a 65 course average, but whose highest score on the corresponding Regents examination after two attempts is below but within 3 points of a 65, may appeal to graduate. If a student appeals one exam, with a score ranging 62-64, the student may be eligible for a Regents Diploma using this lower score. However, if a student appeals two exams with scores ranging 62-64, the student may be eligible for a Local Diploma using this lower score. The appeals process is initiated with the assistance of the high school counselor.

NYS Testing

The New York State Regents examinations are administered annually in January, June and August. Students may retake tests at successive test dates to improve their scores. School counselors notify students of their failures and are available to discuss options. Fees to attend summer schools outside the district are the responsibility of the student. If a student retakes a Regents exam in August of the same school year in which the course was completed and earns a higher score, the final course average will be recalculated using the higher score. Should a student retake a Regents exam, only the highest Regents score will appear on the transcript.

Diploma Accolades

Honors

Students who earn an overall average of a 90% or higher on the five required exams needed for a Regents Diploma receive an Honors Distinction. Students who earn an overall average of a 90% or higher on all eight Regents exams needed for the NYS Regents Diploma with Advanced Designation receive an Honors Distinction.

Math and/or Science Seal

Students who earn an 85% or higher on three Math Regents exams will earn a Math Seal on their diploma. Students who earn an 85% or higher on three Science Regents exams will earn a Science Seal on their Diploma (note: one of the three must be the Living Environment exam).

Career & Technical Endorsement

Students who pass the four required Regents exams and pass the certification examination relative to their specific vocational field of study receive a CTE Endorsement Seal.

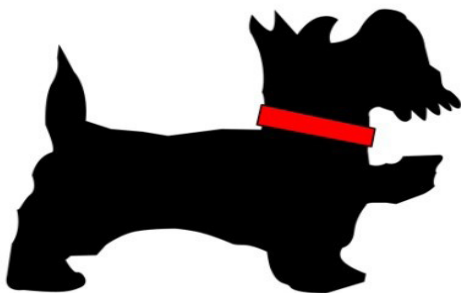
Seal of Biliteracy

This accreditation serves to recognize students who have met certain criteria that demonstrates their competency in a second language. With this diploma seal, students can show prospective employers and colleges that they have attained proficiency in listening, speaking, reading, and writing in one or more languages in addition to English. Students who earn this seal will have an additional notation on their diploma and will be presented with a special cord to be worn with their graduation regalia to signify this accomplishment.

Specific to Students with Disabilities Accolade

NYS Career Development and Occupational Studies Commencement Credential (CDOS): The NYS CDOS Commencement Credential is a credential recognized by the New York State Board of Regents as a certificate that the student has the knowledge and skills necessary for entry level employment. There are two options available for students to earn this credential.

- The student must have developed a career plan that includes documentation of the student's self-identified career interests, career-related strengths and needs, career goals, career and technical coursework, and the work-based learning experiences that the student plans to engage in to achieve those goals; and
- The student must have demonstrated achievement of the commencement level CDOS learning standards in the areas of career exploration and development, integrated learning and universal foundation skills; and
- The student must have successfully completed at least 216 hours of CTE coursework and/or work-based learning experiences (of which at least 54 hours must be in work-based learning experiences); and
- The student must have at least one completed employability profile that documents the student's employability skills and experiences, attainment of each of the commencement level CDOS learning strands, and as appropriate, attainment of technical knowledge and work-related skills, work experiences, performance on industry-based assessment, and other work-related academic achievements.



College Credit Opportunities

Students are presented with a wide variety of opportunities to obtain college credit while enrolled in upper level courses at Ballston Spa High School. Every college sets its own standard for accepting transfer credits. Advanced Placement (AP), International Baccalaureate (IB), University in the High School (UHS) and College in the High School (CHS) courses are viewed as transfer credits by most colleges. Ballston Spa High School presents the curriculum, designates courses as college level on the high school transcript, and grants credit toward high school graduation; but the college in which the student enrolls decides whether to award college credit. Ballston Spa High School requires that every student enrolled in AP or IB course(s) take the AP or IB exam(s).

College in the High School (CHS) offerings:

All students enrolled in classes through SUNY Adirondack and/or Schenectady County Community College must complete the Saratoga Certificate of Residency process found at: <http://www.saratogacountyny.gov/departments/county-treasurer/certificate-of-residency/>

SUNY Adirondack Community College

Cost to high school student: \$67.00 per credit hour*

Cost of similar courses at the same college: \$600

Course Title	Course College #	College Credits
CHS Graphic Design 1	ART 222	3
CHS Graphic Design 2	ART 252	3
CHS Photography	ART 104	3

SUNY Schenectady County Community College

Cost to high school student: \$61.00 per credit hour*

Cost of similar courses at the same college: \$450-\$1064

Course Title	Course College #	College Credits
AP Biology	BIO 141/142	8
AP Physics	PHY 153/154	8
CHS Computer Applications	CIS 121	3
CHS American History Since 1877	HIS 229	3
CHS American History to 1877	HIS 227	3
CHS Astronomy - Exploring Space	AST 123	3
CHS Astronomy – Cosmic Systems	AST 127	3
CHS College Algebra with Trig	MAT 154	3
CHS College Composition	ENG 123	3
CHS College Literature & Writing	ENG 124	3
CHS Drawing & Painting II	ART 128	3
CHS French – Level 3	FRE 122	3
CHS Government & Politics	POS 123	3
CHS Intro to Business	MGT 123	3
CHS Mathematical Topics	MAT 145	3
CHS Business Math	BUS 113	3
CHS Music Fundamentals I	MUS 147	3
CHS Pre-Calculus	MAT 167	3
CHS Principles of Business Marketing	MKT 223	3
CHS Psychology	PSY 121	3
CHS Public Speaking	COM 105	3
CHS Spanish – Level 3	SPA 122	3

*Cost of all courses and exams are subject to change and non-refundable.

University in the High School (UHS) Offerings

Rochester Institute of Technology
 Cost to high school student: \$225*
 Cost of similar courses at the same college: \$3993

Course Title	College Credits
UHS/PLTW DDP	3
UHS/PLTW Civil Engineering & Architecture	3
UHS/PLTW Computer Integrated Manufacturing Systems	3
UHS/PLTW Engineering Essentials	3
UHS/PLTW Principles of Engineering	3

SUNY University at Albany
 Cost to high school student: \$160*
 Cost of similar courses at the same college: \$295-\$3,952

Course Title	Course College #	College Credits
AP Calculus AB/BC	AMAT 112	3
AP Statistics	AMAT 108	3
IB French SL Year 1	AFRE 221Y	4
IB French SL Year 2	AFRE 222Y	4
IB Spanish SL Year 1	ASPN 200	4
IB Spanish SL Year 2	ASPN 201	4
UHS French 4	AFRE 221Y	4
UHS French 5	AFRE 222Y	4
UHS Spanish 4	ASPN 200	4
UHS Spanish 5	ASPN 201	4

*Cost of all courses and exams are subject to change and non-refundable.

Advanced Placement (AP) Offerings

Cost to high school student: \$95*

Course Title

AP Art Portfolio
AP Biology
AP Calculus AB
AP Calculus BC
AP Chemistry
AP Computer Science Principles
AP English Literature & Composition
AP English Language & Composition
AP Macroeconomics
AP Physics 1
AP Statistics
AP United States Government & Politics
AP United States History
AP World History II

International Baccalaureate (IB) Offerings

Cost to high school student per individual course: \$119*

Cost to Full Diploma Programme Candidate: None

Our partners at GLOBAL FOUNDRIES celebrate the alignment of their company's mission with that of the IB by funding all exam fees for full IBDP (International Baccalaureate Diploma Programme) students.

Course Title

IB Biology HL
IB Biology SL
IB Film HL
IB Film SL
IB French SL
IB History of the Americas HL
IB Language & Literature HL
IB Math - Application and Interpretation SL / Algebra 2
IB Mathematics SL / Pre-Calc
IB Physics HL
IB Psychology HL
IB Psychology SL
IB Spanish SL
IB Visual Arts SL/HL

*Cost of all courses and exams are subject to change and non-refundable.

Clean Technologies & Sustainable Industries

Early College High School

Number of Students: 230
 College Acceptance Rate: 100%
 Participating School Districts: 19

Program support includes:

- NYS P-TECH grant and corporate partner donations.
- Equity and access for all students.
- Concurrent high school and college credits each year.

Post Secondary Majors

- Aeronautical Science
- Architecture/Project Management
- Business Administration
- Clean Energy
- Communications
- Computer Science
- Cybersecurity
- Education
- Engineering (various)
- Entrepreneurship
- Exercise Science
- Hotel, Resort, and Tourism Management
- Illustration
- International Relations
- Marine Biology
- Mechatronics
- Nursing
- Political Science
- Veterinary Technology
- Video Game Art

Scholarship Offerings:

- The Sage Colleges
- Siena College
- Society for Information Management

VISION

To cultivate a fully connected and collaborative learning environment focusing on 21st Century skills, STEM teaching and learning, and College and Career Readiness for all students that is supported through public and private partnerships.



The mission of the Clean Technologies & Sustainable Industries Early College High School (Clean Tech ECHS), Pathways In Technology (P-TECH) Program, is to develop and support pathways to higher education that lead to careers in STEM fields for students through rigorous academic programming and a collaborative approach to learning.

Launched in the 2011-2012 school year in collaboration with NYSERDA and Hudson Valley Community College at TEC-SMART in Malta, NY, the Clean Tech ECHS program provides high school students with opportunities to develop college and career readiness skills and pursue college coursework in one of the following pathways:

9 Grade Students:

- Cybersecurity
- Engineering Sciences
- Health Services
- Liberal Arts & Sciences

10th - 12th Grade Students:

- Clean Energy
- Computer Information Systems
- Entrepreneurship, Leadership & Innovation
- Mechatronics

The Clean Tech ECHS program includes partners from K-12 education, higher education, and businesses and industries collaborating together to provide students a distinct opportunity to pursue coursework towards an associates degree and be prepared to seamlessly transition into key industry sectors within our economic region. Students have the opportunity for job shadowing and mentoring experiences to develop workplace skills.

Additional information about the program and its mission can be found at:

<https://www.bsccd.org/Domain/831>

Program Design Principles

The Clean Technologies & Sustainable Industries Early College High School believes that through a transdisciplinary approach to STEM teaching, learning, and experiences in higher education our students will have authentic educational opportunities that value:

- A clear pathway from high school graduation, to college, to career.
- Personalization and Collaboration: Each student is responsible to make learning uniquely his/her own while able to collaborate, communicate, and apply STEM concepts to best solve problems driven by personal interests.
- Transdisciplinary learning with an emphasis on application of understanding in diverse situations through the development of projects and lessons that address authentic issues.
- The demonstration of proficiency and mastery of content, ingenuity, innovation, and creativity using nontraditional assessment tools.
- Critical thinking and the design process in the context of the community by leveraging assets and resources from higher education, business and industry: A collaborative learning ecosystem among partners in education.
- Design-focused service learning that promotes and informs self-discipline and ethical citizenry through learning about community issues and providing viable solutions to critical community issues and problems.



Program Overview and Format

The program includes the following for 9th grade:

- Applications due in the fall semester with the coursework beginning for the spring semester.
- Virtual Learning Program- 21st Century Skills focusing on design projects and exploration of professional skills.
- Students enrolled in high school coursework at their home schools.
- Orientation visit to TEC-SMART in the first month of the semester and final visit to TEC-SMART at the end of the semester.
- Google Meet sessions with program staff.

The program includes the following for 10th grade:

- A week long summer academy for incoming 10th graders to be held on the TEC-SMART campus focusing on program career pathways and workplace skills.
- Yearlong Virtual Learning Program – modules focusing on a particular pathway.
- Students enrolled in high school coursework at their home school.
- Monthly visits to TEC-SMART with peer and professional mentoring.
- Job shadowing.
- Site visits at home schools by program staff.
- HVCC College Coursework- online College Forum (1.0 HVCC credit) in the fall; online Sociology (3.0 HVCC credits) in the spring

The program includes the following in 11th and 12th grades:

- Beginning with students enrolled in 9th grade in 2021, students can choose from the following pathways:
 - Cybersecurity
 - Engineering Sciences
 - Health Sciences
 - Liberal Arts & Sciences
- Students attend school at TEC-SMART for high school AND college classes in the morning then return to their home school in the afternoon.

9th Grade: P-TECH 21st Century Skills- Impact of Technology on Society



10th Grade: Summer Bridge Programing,
P-TECH 21st Century College and Workplace Readiness and HVCC college coursework
(FORM101 College Forum and SOCL100 Sociology)



**Pathway:
Clean Energy**

MKTG 120
Principles of Marketing

ECMN 120
Electrical Theory for Renewable Energy

ESY100
Introduction to Wind Energy

ECMN 210
Photovoltaic Theory and Design

BADM 110
Legal & Ethical Env. of Business

ECMN 211
Photovoltaic Installation and Maintenance

ECMN 195
Elt Pwr Dist/ Ctr 1 for Mchtrncs

College Math

**Pathway:
Computer Science & Information Systems/
Cybersecurity**

CISS 100
Introduction to Computer Inf. Science

CISS 110
Programming & Logic I

CISS 111
Programming & Logic II – Data Structures

CISS 125 Computer & Information Security

CRJS 101
Introduction to Criminal Justice

PSYC 100
General Psychology

College Math

BADM 110
Legal & Ethical Env. of Business

**Pathway:
Mechatronics**

BADM 200
Business Communications

ECMN 120
Electrical Theory for Renewable Energy

SOCL 120
Cultural Diversity in American Society

CISS 105
IT Essentials (A+) PC Hardware and Software

CMPT 115
Intro to Business Analytics with Microsoft Excel

PSYC 100
General Psychology

ECMN 195
Elt Pwr Dist/ Ctr 1 for Mchtrncs

College Math

**Pathway:
Entrepreneurship,
Leadership & Innovation**

MKTG 120
Principles of Marketing

ENTR 110
Introduction to Entrepreneurship

CMPT101
Computer Concepts and App 1

ENTR 120
Entrepreneurship Process

BADM 220
Statistics

BADM 207
Organization & Management

MKTG 210
Digital Marketing

College Math



Full Matriculation into Higher Education Institution

*HVCC College classes are subject to change

Clean Technologies & Sustainable Industries

High School Course Descriptions

Students study Environmental Science and Sustainability, Mathematics, and English through a transdisciplinary lens to solve authentic real world problems during their junior year. Their senior year includes Nanotechnology, Green Economics and Public Policy, taught through a transdisciplinary lens. Transdisciplinary learning is holistic, not English, Science, Math or Social Studies in isolation in terms of content or applying what you have learned. The challenges of the 21st Century are too complex to be solved by looking through a single disciplinary lens. The focus is on the unity of knowledge, not knowledge in silos or content specific, in the solution of authentic real world problems. The focus on course work inherently fosters problem solving, innovative thought, and critical thinking. Students complete approximately eight mastery assignments and a capstone project throughout each year.

P-TECH 21st Century Skills

**Grade 9
(Pass/Fail)**

HS2067

Credit 1/2 Unit

P-TECH 21st Century Skills provides students with knowledge of how to use technology to communicate, collaborate, and create. Students will develop an understanding of the engineering design process, as well as how business professionals use this process. Students will develop communication and collaboration skills to create improvements and modifications in the professional environment and society. Students will be awarded 3 credits from Hudson Valley Community College upon successful completion of this course.

P-TECH 21st Century College and Workplace Readiness

**Grade 10
(Pass/Fail)**

HS2068

Credit 1 Unit

College and Workplace Readiness provides students the opportunity to explore and gain knowledge about the fields of Clean Energy, Mechatronics, Computer Programming, and Entrepreneurship. Students will complete a project in a different field each quarter. Students will be exposed to renewable energies, coding, 3-D Printing, and creating an invention.

Environmental Science and Sustainability

Grade 11

HS2060

Credit 1 Unit

Universities and corporations are beginning to recognize that humanity is affecting the environment in ways which are historically unprecedented and which are potentially devastating for both natural ecosystems and us. They have begun to look at ways to reduce their carbon footprint. Similarly, our school district is uniquely positioned to influence the direction we take as a community in terms of learning about and conducting research in the areas of Environmental Science, sustainability and “Green Design.” Resource availability has guided the development of human society. This course allows students to study the sustainability of human societies and how the biodiversity that supports them requires responsible management of natural resources not only to reduce existing adverse impacts but also to get things right in the first place. Students learn that all forms of energy production and other resource extraction have associated economic, social, environmental, and geopolitical costs and risks, as well as benefits. Students work to understand how new technology and regulation can change the balance of these factors.

Applied Mathematics in Clean Technologies HS2036
Grade 11 Credit 1 Unit

The Mathematics in Clean Technologies covers mathematics concepts from the areas of Algebra, Geometry, and Statistics. Students use the concepts from these Math disciplines to solve issues related to the environment and sustainability. The assignments for this course include rigorous content knowledge and skills application, and are aligned with expectations of both college and workforce. Students will have the opportunity to analyze and evaluate large data sets. Students use their math skills to learn about and evaluate data related to economics, management of natural resources, and renewable energies. (This course is not approved by NCAA.)

English 11 HS2063
Grade 11 Credit 1 Unit

The English 11 Regents course concentrates on comprehensive skill development and refinement. The curriculum utilizes non-fiction literature, documents, and research to help students develop a better understanding of the environment and need for sustainability. Students will develop a mature writing style, an extensive vocabulary, and presentation skills. Students will gain experience with the rhetorical mode of argumentation and persuasion. Students will be prepared to take the English Comprehensive Regents exam.

P-TECH Career Exploration HS2268
Grade 11 Credit 1/2 Unit

Students will complete a 40-hour field experience at the end of their junior year. In addition to the 40 hours, students will participate in meetings, job shadow experiences, and skill development training. The field experience will be a highly structured, time-limited, career preparation activity in which students are placed at a workplace for a defined period of time to participate in and observe work firsthand within a given industry. Field experiences provide students the opportunity to learn by doing real work and being productively engaged in the workplace. They may be provided the opportunity to work in teams, rotate through a number of departments and job functions, or to work on a project of interest to the student (or group of students) as a productive value for the employer partner. They are designed to give students hands-on experience in a field of interest, learn and practice occupational skills, and provide the opportunity to learn about their career options. Students will submit a portfolio for review at the conclusion of their field experience.

P-TECH Reading and Research HS2069
Grade 11 Credit 1/2 Unit

The P-TECH Reading and Research course concentrates on student development of skills in reading, writing, vocabulary, discourse and research. Engaging with literature and non-fiction documents, students explore college pathways through the lens of the United Nations Sustainable Development Goals. Guided research opportunities help students develop a better understanding of the local and global impacts of the 17 UN Sustainable Goals. As a result, students develop and refine communication and research skills required in 21st century learning and work environments as well as understand the application of those skills in today's world.

CHS English Composition I Grade 12

HS1125
Credit 1 Unit

English 12 concentrates on literacy requirements and communication skills utilized in real world experiences. The curriculum utilizes non-fiction literature, documents, and research to help students develop a better understanding of the impact of technological advancements and policy on the world. Students will develop and refine their communication skills for a 21st century environment, and will understand the application of digital literacy in today's marketplace.

Green Economics and Public Policy Grade 12

HS2064
Credit 1 Unit

The only constant is change and the only variable is the rate of change. Nanotechnology, the technological foundation of some of the world's most rapidly growing industries including the modern nanoelectronics, renewable technologies, and semiconductor industries, has helped shape the globalization and interdependence of world economies at a faster rate than was known to any previous generation. Green Economics and Public Policy examines economic and government policies from the perspective of science and technology, and how investment in these areas shapes the world economy and policies. In addition, students will look at the economic impact of nanotechnology and clean technologies on our own community, and the Tech Valley Region as a whole. This course will provide the opportunity to learn how government, policies, business, and market structures have changed in terms of investment, infrastructure, transportation, and communications as a result of advances in emerging nanotechnologies and renewable technologies. The role of the United States in a global and interdependent economy will also be examined and discussed. Students will learn about the social skills needed to be effective citizens, including ethical decision making, service and participation in government. This course emphasizes current issues personal responsibility and individual initiative. Students will be given an opportunity to volunteer for a community service project that links government policy making with real life needs.

Nanotechnology Grade 12

HS1274
Credit 1 Unit

Nanotechnology is an interdisciplinary field that is changing the world. Nanotechnology focuses on the engineering of functional systems at the molecular scale. Through this course students will learn about the properties and applications of nanotechnology. Basic chemistry and physics topics will be covered as they relate to nanotechnology. Students will conduct hands on labs in a clean room environment. Students will have the opportunity to use scientific equipment, including microscopes, to learn how the properties of materials differ. Students will use the knowledge they obtain from research and labs to develop a research proposal related to increasing the efficiency of photovoltaic materials.

Please review the Hudson Valley Community College Academic Catalog at www.hvcc.edu for course descriptions for the college courses.



International Baccalaureate Diploma Programme

What is the Diploma Programme?

The International Baccalaureate Diploma Programme (IBDP) is a rigorous college-level program for motivated students in the last two years of high school. The program of study leads to exams in six different subject areas and is aimed at developing global citizens and life-long learners who are committed to serving their communities.

Profile of an IB Student

Students in the IB Diploma Programme strive to be:

- Inquirers
- Open-Minded
- Knowledgeable
- Caring
- Thinkers
- Risk-takers
- Communicators
- Balanced
- Principled
- Reflective

Why Choose IB?

The IB Diploma Programme at Ballston Spa High School prepares students to succeed in college and to effectively participate in an increasingly global society. The IBDP helps students become confident learners and critical thinkers who desire to create a better world through intercultural understanding and respect.

Want More Information About IB?

Visit the International Baccalaureate at www.ibo.org

Contact the IB Coordinator:

Nicole Stehle

nstehle@bscsd.org

(518) 884-7150 ext. 2366

The IB Curriculum

IB Diploma Programme students must choose one course from each of five subject groups including studies in language and literature, language acquisition, individuals and societies, the sciences, and mathematics. Furthermore, students must also choose either an arts course from the arts group, or a second course from one of the other subject groups. All courses listed are two year courses unless noted otherwise.

Students must successfully complete three HL (higher level) and three SL (standard level) courses in two years.

IB Courses Offered at Ballston Spa High School

(See department pages for course descriptions)

Group 1: Studies in Language and Literature

English Language and Literature HL

Group 2: Language Acquisition

French SL

Spanish SL

Group 3: Individuals and Societies

History of the Americas HL

Psychology HL

Psychology SL (1 year course)

Group 4: Experimental Sciences

Biology HL

Biology SL (1 year course)

Physics HL

Group 5: Mathematics

Math: Applications and Interpretation SL / Algebra 2

Mathematics SL /Pre-Calc (1 year course)

Group 6: Arts

Film SL/HL

Visual Arts SL/HL



Core Elements

To earn an IB Diploma, students must also successfully complete three required core elements throughout the two year program of study. Completion of Theory of Knowledge and the Extended Essay account for up to three of the minimum 24 points that students must earn for a full diploma.

Creativity, Activity and Service (CAS)

2 Year **½ Credit (Pass/Fail)**
Grades 11, 12

Students engage in a range of self-selected extracurricular activities, including a project, which encourages Creativity, (i.e. engagement in the arts), Activity (i.e. participation in athletics) and Service (i.e. community and social service activities). Experiences cannot be obtained from other IB courses. In this self-propelled course, students will engage in systematic self-evaluations of their experiences in various formats (i.e. blogs, video, pictures, etc.).

Extended Essay (EE)

2 Year **1 Credit (Combined with TOK)**
Grades 11, 12

Students engage in independent research and write a 4,000 word maximum essay on a topic of their choice. The extended essay gives the student an opportunity to explore a self-selected, academic topic in depth. Students begin the research process in the fall of their junior year, with the selection of a topic due early in the second semester. Final essays are submitted in the senior year. While students work under the guidance of the EE Coordinator and a teacher-mentor, the extended essay is written outside of the classroom on a student's own time. The International Baccalaureate Organization recommends that a student devote a total of about 40 hours of private study and writing time to the essay.

Theory of Knowledge (TOK)

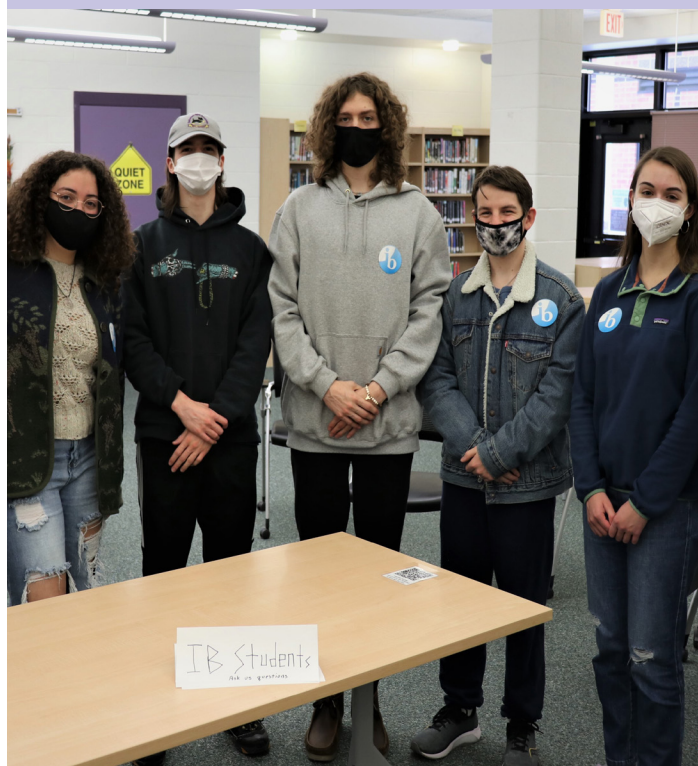
2 Year **1 Credit (Combined with EE)**
Grades 11, 12

Students will explore the values and limits of knowledge in all subject areas and examine this fundamental question: How do we know what we know, and how reliable is the knowledge we possess? The course is organized primarily as a seminar discussion where students will practice writing, listening, and discussion skills. The course culminates in the writing of a 1200-1600 word essay which is submitted to the external IB examiners. Students are also required to conduct an oral presentation on a contemporary issue that is assessed by the instructor.

Facts & Figures

- 95% of IB Diploma Programme (IBDP) graduates in the US enroll in four-year institutions (60% national average).
- IBDP students not only do well academically while in high school, but also go on to perform well at the university level.
- University admissions officials say the IBDP is the best qualification for developing students' non-academic skills (independent inquiry, open-mindedness, global awareness, self-management skills) and preparing them for further education and careers.
- Studies find that the alumni of the IBDP attend top-ranking universities.
- 89% of IBDP students recommend that other students participate in the IBDP.
- IBDP alumni report the IB has profound, long-lasting effects on students' lives. It helps them develop critical thinking, analytical and writing skills and a broader world view. In addition, they point out that they earned advanced credits for university.

** Source: www.ibo.org*



IB Assessments

The IB Diploma Programme uses both internally and externally assessed components to assess student performance. In the IBDP, students receive grades ranging from 7 to 1, with 7 being the highest. Students receive a score for each exam attempted.

A student's final diploma result score is made up of the combined scores for each subject. The diploma is awarded to students who gain at least 24 points, subject to minimum levels of performance including successful completion of the three essential elements of the IBDP Core (EE, TOK and CAS).

Colleges and Universities Accepting Ballston Spa IB Diploma Programme Candidates

The IB curriculum is internationally recognized for its rigor and quality. Completion of the full Diploma Programme or of individual courses can give students advanced standing in college and an advantage in the college admissions process.

More than 1,000 colleges and universities in North America have recognition policies on how they weigh IB in admissions, advanced standing, college credit and scholarships.

Albany College of Pharmacy	Providence College
American University	Rensselaer Polytechnic Institute
Bard College	Rochester Institute of Technology
Boston College	Siena College
Boston University	Skidmore College
Brandeis University	St. Lawrence University
Brown University	SUNY Albany
Bryn Mawr College	SUNY Binghamton
Champlain College	SUNY Brockport
Clark University	SUNY Cortland
Clarkson University	SUNY ESF
Colgate University	SUNY Geneseo
College of the Atlantic	SUNY New Paltz
College of the Holy Cross	SUNY Oneonta
Concordia University	SUNY Plattsburgh
Connecticut College	SUNY Stony Brook
Cornell University	SUNY University at Buffalo
Culinary Institute of America	Syracuse University
Dartmouth College	Trinity College Dublin
Drew University	Union College
Florida Institute of Technology	University of Chicago
Fordham University	University of Connecticut
George Washington University	University of Delaware
Georgetown University	University of Denver
Hamilton College	University of Florida
Hobart and William Smith Colleges	University of Hartford
Hofstra University	University of Mass. Amherst
Hunter College	University of Miami
Ithaca College	University of Michigan
Marist College	University of New Hampshire
Marymount Mnhattan College	University of New Haven
McGill University	University of New Mexico
Muhlenberg College	Univ. of N. Carolina at Wilmington
Nazareth College	University of Rhode Island
New York Conservatory for Dramatic Arts	University of Rochester
Northeastern University	University of Vermont
Oberlin College	Washington College
Pennsylvania State University	Williams College

Career and Technical Education

What is Career and Technical Education (CTE)?

According to the CTE Technical Assistance Center of New York, “Career and technical education is an extensive array of secondary and postsecondary instruction preparing students with technical/academic skills and behaviors to be successful in careers and further education.” <https://nyctecenter.org/planning/cte-in-nys>

CTE Works for High School Students

Based on data from the Association for Career and Technical Education:

- High school students involved in CTE are more engaged, perform better and graduate at higher rates.
- Taking one CTE class for every two academic classes minimizes the risk of students dropping out of high school.
- The average high school graduation rate for students concentrating in CTE programs is 93%, compared to an average national freshman graduation rate of 80%.
- 91% of high school graduates who earned 2-3 CTE credits enrolled in college.

What are the benefits to students of participating in CTE Programs?

- Students have the competitive advantage of real-life connections to careers/workplaces.
- Students have documentation of the professional skills that so many employers indicate are important in the hiring process.
- Students have the opportunity to earn college credits and/or tuition reductions.
- Students who successfully complete all of the program requirements of a CTE Program will receive a Technical Endorsement on their diploma.
- These programs provide students with multiple pathways to graduation through the CTE Graduation Pathway or the CDOS Graduation Pathway.

What is a CTE Approved Program?

CTE approved programs provide academic and technical instruction in the content areas of agriculture, business and marketing, family and consumer sciences, health occupations, trade and technical education, and technology education. All approved programs include a meaningful sequence of required CTE courses (all taught by CTE certified teachers), connections to academic content, work-based learning opportunities (including internships, service projects, etc.), post-secondary agreements with one or more colleges, and completion of a 3-part NYSED approved Industry/Technical Assessment.

CTE Programs for Ballston Spa High School Students Include:

- WSWHE BOCES Approved Programs (see p. 23)
- Ballston Spa High School Programs:
 - Business Education (see p. 24):
 - Business Management/Entrepreneurship
 - Marketing
 - Technology Education (see p. 28):
 - Building Sciences
 - Pre-Engineering

BOCES Career and Technical Education

These two-year programs are certified by New York State to provide technical training specific to business and industry standards. Students in grades 11 and 12 may select any of the course offerings if they have successfully completed two units of credit in English, History, Mathematics and Science and passed the required Regents exam for these classes. Students who enroll in a CTE program and complete a two-year program earn four credits towards graduation each year. Career and technical education (CTE) course offerings at the F. Donald Myers Education Center are available in the areas of:

Trade and Industrial

- Auto Body Repair
- Automotive Technology
- Environmental Conservation and Forestry
- Heating Ventilation, Air Conditioning and Refrigeration (HVAC/R)
- Heavy Equipment Maintenance and Operation
- Welding

Health Services

- Health Occupations

Human and Public Services

- Cosmetology
- Criminal Justice Studies
- Culinary Arts and Hospitality
- Early Childhood Education
- Graphics & Visual Communication

Nature and Horticultural Science

- Horticulture, Landscaping and Floral Design
- Horse Care



Business Education Department

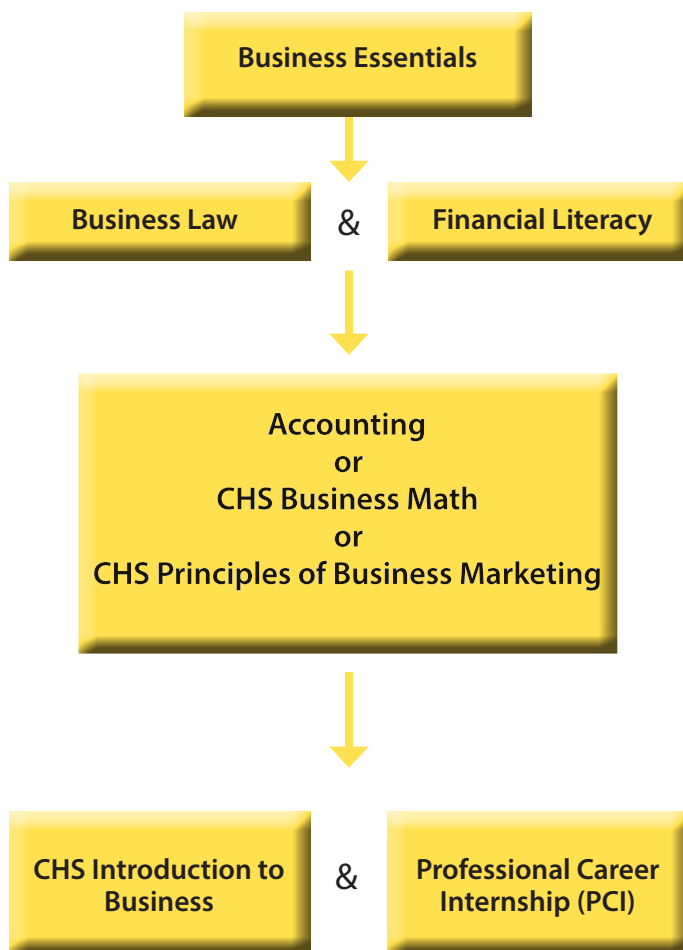
NYSED - CTE Approved Program Pathways in Business Education

Business Management/Entrepreneurship

Program Requirements:

- Complete required coursework (4 credits)
- Professional Career Internship
- 3 Part Industry/Technical Assessment

Recommended Course Sequence for Business Management Program



Marketing

Program Requirements:

- Complete required coursework (3.5 credits)
- Professional Career Internship
- 3 Part Industry/Technical Assessment

Recommended Course Sequence for Marketing Program



* Students can take all of the above courses individually or as part of the identified CTE Approved Programs*

Business

In today's global economy, it is important that all students have knowledge of the economic and financial world in which they live. Business Education provides students with the foundation to pursue programs such as business administration, accounting, marketing/management, law and finance. Many business courses provide students with the opportunity to develop computer skills necessary to be competitive in both college and the workplace.

1/2 UNIT COURSES

Accounting **HS1701**
Grade 11, 12 **Credit 1/2 Unit**
Final Assessment: Project
**Optional course for CTE Approved Program*

Accounting is a course designed to provide knowledge of business papers, office procedures, and business practices in bookkeeping and accounting. The students will learn the skills to maintain ledger accounts and interpret financial data. Students will learn how debits and credits are used in the journalizing process; as well as the concepts of posting assets, liabilities, owner's equity, revenues, expenses, financial statements, and payroll.

Business Essentials **HS1733**
Grade 9, 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: Project
**Course Required for completion of CTE Approved Program*

Business Essentials is an introductory course that will provide students with the opportunity to learn about a variety of topics which include (but are not limited to) business ownership and the business cycle, ethical decision-making, marketing, social responsibility, career exploration, leadership, and public speaking. Emphasis is placed on the importance of effective human relations skills, making decisions and problem-solving. Computer skills incorporated are word processing, desktop publishing, presentation development, and spreadsheets.

Financial Literacy **HS1709**
Grade 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: Project
**Course Required for completion of CTE Approved Program*

Financial Literacy provides students with a foundation

for making well-informed personal financial decisions. Students will learn real world applications such as SMART goals, careers, money management, credit, insurance, and investing. Students will design household budgets, simulate the use of checking accounts, evaluate investment options, and demonstrate the proper use of credit and determine insurance needs. Students will have the opportunity to be W!SE certified after the successful completion of the W!SE examination. ***W!SE is the W!SE Certified Financially Literate (CFL) credential awarded to students who pass the W!SE Financial Literacy Exam. The credential demonstrates to colleges and employers that students have the knowledge and skills to be financially savvy.*

The Fashion Industry **HS1717**
Grade 9, 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: Project
**Optional course for CTE Approved Program*

The Fashion Industry is an introductory course that will explore the impact of the fashion industry on society. The students will learn the basic terminology and fundamentals of the fashion industry. An emphasis will be placed on the concepts of product development, manufacturing, wholesale markets, sales promotion, textiles, visual displays, distribution and fashion retail.

Business and Personal Law **HS1708**
Grade 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: Local Exam
**Course Required for completion of CTE Approved Program*

Students will gain an understanding of the law as it affects them in personal and business applications. We will cover basic legal principles and procedures in addition (but not limited to) contracts, civil law, criminal law, laws pertaining to minors, and insuring your future.

Sports and Entertainment Marketing **HS1711**
Grade 9, 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: Project
**Optional Course for CTE Approved Program*

Sports and Entertainment Marketing is an introductory course that will explore the activities and organizations within the sports industry. The students will learn aspects of producing, promoting, and organizing sports related businesses and products. This project-based course will also cover sponsorships and endorsements, facility and event management, collegiate and professional sports, and careers in the industry, including sports agents.

CHS Business Computer Applications **HS1729**
 (College # CIS121)
 Grade 11, 12 Credit 1/2 Unit
 Final Assessment: Exam

This course introduces the student to fundamental concepts of computers and computing, including number systems, hardware, architecture, information processing, operating systems, networks (including the Internet), and web design. Additionally, students will complete significant projects utilizing contemporary word processing, spreadsheet, and presentation graphics software. Fundamentals of programming will be explored using modern programming languages. Other software application may be examined during the semester. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

Professional Career Internship (PCI) **HS1704**
 Grade 12 Credit 1/2 Unit
 Final Assessment: The Project and Time Requirement
 *Course required for completion of CTE Approved Program

This course allows students to complete an unpaid internship experience in one or two different careers that are of interest to them. Students will need to complete 54 hours in their internship experience and a minimum of 27 hours of classroom instruction. Students can explore a variety of careers including (but not limited to) accounting, biology, criminal justice, child care, engineering, journalism, teaching, and many others. **Students planning to enroll in PCI need to provide their own transportation to and from their placements.** In addition, students will have a minimum of one class per four day rotation - the schedule will be provided by the teacher the first day of class. Students who choose to enroll in this elective course are expected to demonstrate a level of responsibility and commitment appropriate for the workplace. Applications to enroll in this program may be obtained from their school counselor. Students will be interviewed by members of the Business Education Department to determine final acceptance into the program.

CTE I: Introduction to CTE
(Career and Technical Education) **HS1706**
 Grade 10, 11, 12 Credit 1/2 Unit
 Final Assessment: School Exam

CTE I is a half year introductory business course that connects project-based learning with “real world” and career applications in order to develop the life skills needed to maintain an occupation in the 21st century. Students will utilize technology to research, interpret, and evaluate information regarding a variety of careers. Students will also enhance their interpersonal skills and learn how to apply such workforce skills during their work-based learning activities. Topics to be addressed include (but not limited to) methods of communication, styles of leadership, management processes, personal aptitudes and interests, and the responsibilities of various life roles for students as individuals and as contributing members of a community. Student participation in work-based learning is required. **This course is applicable to students pursuing a NYS CDOS Commencement Credential or the CDOS Pathway.

CTE II: Introduction to CTE
(Career and Technical Education) **HS1707**
 Grade 10, 11, 12 Credit 1/2 Unit
 Final Assessment: School Exam
 Prerequisite: CTE I

Building upon the coursework in CTE I, CTE II: Introduction to CTE is a business course that connects project-based learning in the classroom with real world career settings to develop and practice skills needed to maintain an occupation in the 21st century. Students will utilize technology to research, interpret, and evaluate information regarding a variety of careers. Students will practice their interpersonal skills and learn how to apply them both in the classroom and the workplace. Topics to be addressed include (but not limited to) social and workplace communication, personal aptitudes and interests, interviewing and the hiring process, and the responsibilities of various life and career roles for students as individuals and as contributing members of a community. Student participation in work-based learning experiences is required. **This course is applicable to those students pursuing a NYS CDOS Commencement Credential or the CDOS Pathway.

Entrepreneurship/Business Ownership HS1734
Grade 10, 11, 12 Credit 1/2 Unit
Final Assessment: Project/Exam

In this course students will gain an understanding of how to start and successfully run a small business. Over the course of the semester students will develop a business model/plan which includes (but is not limited to) creating their own product/company, developing a logo and slogan, conducting market research, identifying target markets and presenting their business model/plan as if they are on “Shark Tank.” Students will learn about the impact of the economy on business, what it takes to be a successful entrepreneur, different types of business ownership, how to identify customers, marketing plan development, how to build customer relationships, methods for generating revenue and much more! Concepts are taught utilizing project-based learning and practical application assignments.

1 UNIT COURSES

CHS Principles of Business Marketing HS1710
(College# MKT 223)
Grade 11, 12 Credit 1 Unit
Final Assessment: School Exam and Project
**Course required for completion of CTE Approved Program*

CHS Principles of Marketing is a college level course that introduces the practices and principles of marketing. Students will learn concepts of promotion, pricing, selling, purchasing, product planning, information management/research, distribution, and risk management. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

CHS Introduction to Business HS1730
(College# MGT 123)
Grade 11, 12 Credit 1 Unit
Final Assessment: School Exam and Project
**Course required for completion of CTE Approved Program*

This introductory course gives students a broad overview of social, economic, legal, and political forces of the global economy that influence a business manager’s roles and decisions. Topics include fundamentals of business and economics, business ethics and social responsibility, competing in global markets, forms of business ownership, starting and growing a business, management, marketing, product distribution, promotion and pricing strategies, and managing technology and information. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

CHS Business Math HS1731
(College# BUS 113)
Grade 11, 12 Credit 1 Unit
Final Assessment: School Exam
**Optional course for CTE Approved Program*

CHS Business Math is a college level course that is designed to enhance the mathematical skills applied in the business field. Students will learn the calculations of cash discounts, percentages, simple interest, inflation, discounting notes, payrolls, bank reconciliations, business and consumer loans, depreciation, and inventory evaluation methods. We will be utilizing electronic spreadsheets in the form of Google Sheets to calculate and prepare financial documents. Students are strongly encouraged to successfully complete three years of mathematics prior to enrolling in this course. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

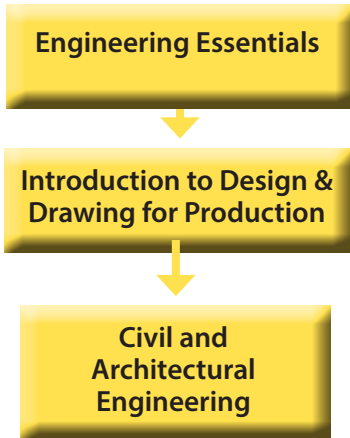
Engineering and Technology

NYSED - CTE Approved Program Pathways in Technology Education

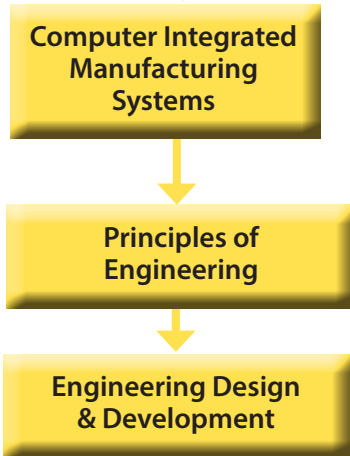
Pre-Engineering Strand

Program Requirements:

- Complete required technology coursework (3 credits)
- Complete Financial Literacy Course
- 3 Part Industry/Technical Assessment



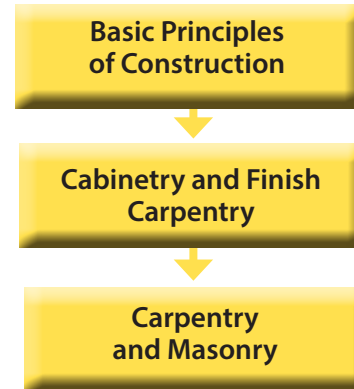
Additional Program Electives:



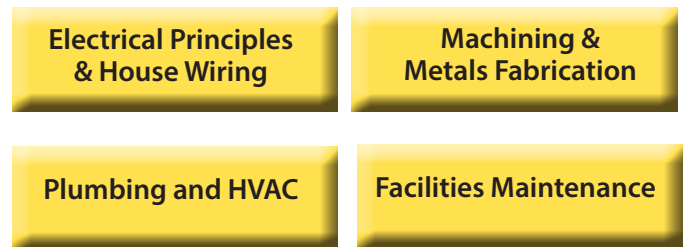
Building Science Strand

Program Requirements:

- Complete required technology coursework (3 credits)
- Complete Financial Literacy Course
- 3 Part Industry/Technical Assessment



Additional Program Electives:



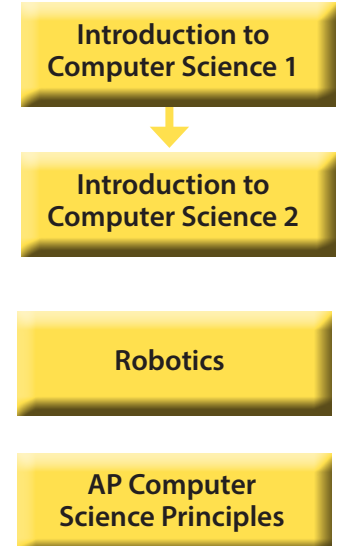
Digital Media

Program Electives:



Computer Science

Program Electives:



* Students can take all of the above courses individually or as part of the identified CTE Approved Programs*

Engineering and Technology

Students interested in Engineering and Technology have a wide variety of opportunities in course work.. Students may complete a 5-unit sequence in Technology as a substitute for the Foreign Language requirement necessary for a Regents Diploma with Advanced Designation. Students interested in pursuing college studies or careers in Pre-Engineering or Building Science have the opportunity to complete NYSED approved Career and Technical Education (CTE) programs in these areas and earn a CTE endorsement for their diploma.

Ballston Spa High School participates in Project Lead the Way (PLTW), a pre-engineering program that prepares students for a career in STEM.

PLTW courses are designated in this course description handbook if the title of the course includes PLTW. Rochester Institute of Technology (RIT) is the affiliate college for all PLTW courses in New York State. Students who maintain an 85% average in these courses and score at least a 6 on the PLTW end of course assessment are eligible to apply for 4 college credits from RIT. Design and Drawing for Production (DDP) may be used as the 1 unit of credit in Art or Music to fulfill that graduation requirement.

Students completing the Building Science sequence of course and enrolling in Hudson Valley Community College's Building Construction AAS degree program after graduation can take advantage of an articulation agreement for 3 college credits.

In addition to technology coursework, students have the opportunity to participate in the Robotics Club and Communication Club to expand and apply their knowledge and talents outside the classroom.

Building Science

Basic Principles of Construction

HS1651
Grade 9, 10, 11, 12
Credit 1 Unit
Final Assessment: School Exam

Basic Principles of Construction is a full year course that introduces students to the field of construction and familiarizes them with building codes and safe material handling. The course provides thorough, up-to-date coverage of the core areas that are necessary for success in the construction field. Students will learn about print reading, safety and common tools, as well as professional skills for the construction field related to work ethic and communication. This course will culminate with a written local exam. Students are encouraged to register and pay for the national online certification exam. Successful completion of the course and a passing score on the national online certification exam will result in students earning a nationally recognized certificate that demonstrates their knowledge.

Cabinetry and Finish Carpentry

HS1666
Grade 10, 11, 12
Credit 1 Unit
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction

This is a full year course that will study finish carpentry, the last step in the construction process in which carpenters install wood products such as trim, molding, cabinets, and other items required to finalize a home. Topics such as cabinetry, stair construction, wood joinery, furniture making, and other fine woodworking skills will be studied.

Carpentry & Masonry

HS1657
Grade 10, 11, 12
Credit 1 Unit
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction

Carpentry and Masonry is a full year course that builds on the Basic Principles of Construction course and covers the essentials of residential construction, carpentry, and masonry. Students will learn about tools and materials, rough carpentry, and exterior and interior finish carpentry, ensuring professional success on any job site. Students will also learn about residential masonry construction procedures as well as current building and construction industry safety regulations. This course will culminate with a written local exam. Students are encouraged to register and pay for the national online certification exam. Successful completion of the course and a passing score on the national online certification exam will result in students earning a nationally recognized certificate that demonstrates their knowledge.

Electrical Principles & House Wiring **HS1669**
Grade 10, 11, 12 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction

Electrical Principles & House Wiring is a full year course that builds on the Basic Principles of Construction course and covers all areas of residential wiring that are required of an entry-level electrician. Topics included are all areas of preparing and planning a job, service entrances and equipment, rough-in and trim-out, and maintaining/troubleshooting a residential electrical wiring system. This course will culminate with a written local exam. Students are encouraged to register and pay for the national online certification exam. Successful completion of the course and a passing score on the national online certification exam will result in students earning a nationally recognized certificate that demonstrates their knowledge.

Machining & Metal Fabrication **HS1678**
Grade 10, 11, 12 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction

Machining & Metals Fabrication is a full year introductory course that explores the topic of machining and metals fabrication. The course provides students with an overview of the tools, material techniques, and organizational skills needed for trades involving metals. Students will be introduced to precision machining techniques as well as measuring. This course will culminate with a written local exam.

Plumbing & HVAC **HS1722**
Grade 10, 11, 12 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction

Plumbing and HVAC is a full year course that builds on the Basic Principles of Construction course and covers the essentials of residential plumbing and ventilation. In the plumbing portion of the course students will learn a step-by-step approach to residential plumbing including tools of the trade, proper safety measures, code requirements, installation of common fixtures, and troubleshooting techniques. The HVAC portion of the course covers the installation, startup, and service of residential air conditioning and heating systems. Topics that will be covered related to HVAC include matter, energy, heat and the basics of refrigeration, and the servicing of oil, gas, electric and geothermal heating systems, boilers, hydronic heating and radiant heating. This course will culminate with a written local exam. Students

are encouraged to register and pay for the national online certification exam. Successful completion of the course and a passing score on the national online certification exam will result in students earning a nationally recognized certificate that demonstrates their knowledge.

Facilities Maintenance **HS1715**
Grade 11, 12 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: Basic Principles of Construction, Carpentry & Masonry, Electrical Principles & House Wiring, and Plumbing & HVAC

Facilities Maintenance is a full year course that builds on the content from the Basic Principles of Construction, Carpentry & Masonry, Electrical Principles & House Wiring, and Plumbing & HVAC courses. A facilities maintenance technician is responsible for a variety of maintenance and repair duties in order to maintain the present state of a facility. When appliances, equipment, and building materials wear out or malfunction, it is the job of the facility maintenance technician to restore these building elements to their original condition. Remodeling duties like obtaining permits, securing financing, and selecting contractors can be duties of the facilities maintenance technician as well. Remodeling and demolition information, safety tips, and tricks of the trade are included throughout this course. This course will culminate with a written local exam. Students are encouraged to register and pay for the national online certification exam. Successful completion of the course and a passing score on the national online certification exam will result in students earning a nationally recognized certificate that demonstrates their knowledge.

Pre-Engineering Strand

UHS/PLTW Engineering Essentials **HS1656**
Grades 9, 10, 11, 12 **Credit 1 Unit**
Final Assessment: End of Course Assessment & Project

Engineering Essentials is a full-year course designed to be a student's first exposure to engineering classes and the Career and Technical Pre-Engineering pathway. In Engineering Essentials, students explore the work of engineers and their role in the design and development of solutions to real-world problems. The course introduces students to engineering concepts that are applicable across multiple engineering disciplines and it empowers students to build technical skills through the use of a variety of engineering tools, such as geographic information systems (GIS), 3-D solid modeling software, and prototyping

equipment. Students learn and apply the engineering design process to develop mechanical, electronic, process, and logistical solutions to relevant problems across a variety of industry sectors, including health care, public service, and product development and manufacturing. This course culminates with a final project and an end of course assessment.

UHS/PLTW DDP (Introduction to Design and Drawing for Production) HS1650
Grade 9, 10, 11, 12 Credit 1 Unit
Final Assessment: End of Course Assessment & Project

Introduction to Design and Drawing for Production is a full year class that emphasizes the design and development process of a product and how a model of that product is produced, analyzed, and evaluated. Various design applications will be explored and students will be introduced to possible career opportunities. This course is designed to develop students' problem-solving skills, with emphasis placed upon the concept of developing a 3-D model or solid rendering of an object. Students will focus on the application of visualization processes and tools provided by modern, state-of-the-art computer hardware and software (AutoCAD with Inventor). This course culminates with a final project and an end of course assessment. Students who maintain an 85% average in this course and score at least a 6 on the PLTW end of course assessment are eligible to apply for 3 college credits from Rochester Institute of Technology (RIT). This course can fulfill the NYS requirements for 1 unit in Art or Music.

UHS/PLTW Civil Engineering & Architecture HS1655
Grade 9, 10, 11, 12 Credit 1 Unit
Final Assessment: End of Course Assessment & Project
Recommended Achievement Levels:
Successful completion of UHS/PLTW DDP

Civil Engineering & Architecture is a full year course about various aspects of civil engineering and architecture. The course is structured to enable all students to have a variety of experiences that will provide an overview of both fields. The course provides freedom to the teacher and students to develop a property as a simulation or for students to model the real-world experiences that civil engineers and architects experience when developing property. Students will complete a long-term project that involves the development of a local property site with application of what they've learned to the design and development of this property. Students work in teams exploring hands-on projects and activities to learn the characteristics of civil engineering and architecture. This course culminates with a final project and an end of course assessment. Students

who maintain an 85% average in this course and score at least a 6 on the PLTW end of course assessment are eligible to apply for 3 college credits from Rochester Institute of Technology (RIT).

UHS/PLTW CIMS (Computer Integrated Manufacturing Systems) HS1680
Grade 9, 10, 11, 12 Credit 1 Unit
Final Assessment: End of Course Assessment & Project
Recommended Achievement Levels:
Successful completion of UHS/PLTW DDP

Computer Integrated Manufacturing Systems is a full year course that will enhance the computer modeling design skills developed in Design and Drawing for Production. Students will be presented with design problems that will require the use of Inventor to develop solutions to the problem. In addition, students will be asked to extend their knowledge of design by applying principles of robotics and automation to the creation of prototypes of three-dimensional designs. Students will be expected to communicate the process and results of their work through oral and written reports. This course culminates with a final project and an end of course assessment. Students who maintain an 85% average in this course and score at least a 6 on the PLTW end of course assessment are eligible to apply for 3 college credits from Rochester Institute of Technology (RIT).

UHS/PLTW Principles of Engineering HS1654
Grade 10, 11, 12 Credit 1 Unit
Final Assessment: End of Course Assessment & Project
Recommended Achievement Levels:
Successful Completion of UHS/PLTW DDP

Principles of Engineering is a full year course that explores various technology systems and manufacturing processes. Principles of Engineering is a project-based course that helps students understand the field of engineering/engineering technology. Students will learn how engineers and technicians use math, science and technology in a problem-solving process to benefit people. The course also includes concerns about social and political consequences of technological change. This course culminates with a final project and an end of course assessment. Students who maintain an 85% average in this course and score at least a 6 on the PLTW end of course assessment are eligible to apply for 3 college credits from Rochester Institute of Technology (RIT). This course may count for the third year of Science required for high school graduation.

PLTW Engineering Design and Development HS1530 Grades 12 **Credit 1 Unit**

Final Assessment: Project

Prerequisite: Successful completion of Robotics, Introduction to Computer Science 1 or 2 or Computer Integrated Manufacturing

Engineering Design and Development is a full year culminating course that applies the principles developed in previous engineering courses. Students will design and construct the solution to an engineering problem. The problem may be selected from a database of engineering problems, be a recognized national challenge, or be an original engineering problem identified by the student and approved by the teacher. The problems will involve a wide range of engineering applications. Each student will be responsible for delivering progress reports and making final presentations of their project to an outside review panel. The completed portfolio will be invaluable as the student applies to college. This course culminates with an engineering notebook and portfolio of the designed solution.

Digital Media

Media Arts & Technology Grade 9, 10, 11, 12 **Final Assessment: Project**

HS1519
Credit 1 Unit

This course offers a unique co-taught curriculum, linking Art and Technology, to bridge the gap between design and production. Students will be introduced to the principles of design and create artwork through various forms of media. Students will work with industry standard software in the Adobe Creative Cloud© to learn graphic design, photography, and digital video production skills, and use them to produce pieces of unique artwork. Students will then be able to translate digital designs to physical objects using CNC equipment in a variety of mediums.

Video Production & Broadcasting Grade 9, 10, 11, 12 **Final Assessment: Project**

HS11103
Credit 1 Unit

Video Production & Broadcasting is a full year course that will serve as an introduction to the other broadcasting/video production courses offered at the high school. Students will study a variety of topics within the video production field, including live studio production, field production and basic video editing skills. Students will

practice these skills through creating short documentaries and promotional videos and combining them into a studio show. The course will culminate in a final project.

CHS Advanced Video Editing, Animation & Visual Effects Grade 11, 12 **HS5256** **Credit 1 Unit**

Final Assessment: Project

Prerequisite: Grade of at least 80% in Introduction to Video Production

Advanced Video Editing, Animation & Visual Effects is a year-long course that builds on the basic editing skills that students learned in Video Production & Broadcasting. In this course, students will learn more advanced editing techniques inside Adobe Premiere Pro, preparing for a certification exam in the software. Additionally, students will explore animation and creating visual effects in Adobe After Effects. Students will produce special effects videos and motion graphics (animations) completely from scratch. Eligible students will complete an application and submit payment and Certificate of Residency to SUNY Adirondack. Upon successful completion of the course with a C or better students will receive 3 credits from SUNY Adirondack. competition.

IB Film SL, Year 1/Year 2 Grade 11, 12 **IB1565** **Final Assessment: 11th Grade - Project** **12th Grade - IB Assessment** **Credit 1 Unit**

The IB film course aims to develop students as proficient interpreters and maker of film texts. Through the study and analysis of film texts and practical exercises in film production, students develop critical abilities and appreciation of artistic, cultural, historical, and global perspectives in film. They examine concepts, theories, practice and ideas from multiple perspectives, challenging their own views to understand and value those of others. Students are challenged to acquire and develop critical thinking, reflective analysis, and imaginative synthesis through practical engagement in the art, craft, and study of film. Students will be evaluated by IB based on the syllabus components of reading, contextualizing, and exploring the production of film.

IB Film HL, Year 1/Year 2

Grade 11, 12

Final Assessment: 11th Grade - Project
12th Grade - IB Assessment**IB1566**

Credit 1 Unit

The IB film course aims to develop students as proficient interpreters and maker of film texts. Through the study and analysis of film texts, and practical exercises in film production, students develop critical abilities and appreciation of artistic, cultural, historical and global perspectives in film. They examine concepts, theories, practice and ideas from multiple perspectives, challenging their own views to understand and value those of others. Students are challenged to acquire and develop critical thinking, reflective analysis and the imaginative synthesis through practical engagement in the art, craft and study of film. Students will be evaluated by IB based on the syllabus components of reading, contextualizing and exploring the production of film and collaboratively producing a film.

Computer Science

Introduction to Robotics

Grade 9, 10

Final Assessment: Portfolio

HS1679

Credit 1/2 Unit

Robotics is a semester course that introduces students to robotics and computer programming. Students will have the opportunity to apply the engineering design process by collaborating as a class to design a robot to complete a challenge. The topics covered by the course include computer programming, mechanics, and electronics. Students will submit an engineering design notebook and compete as a class in the FIRST Tech Challenge competition.

Introduction to Computer Science I

Grade 9,10,11,12

Final Assessment: School Exam

HS1681

Credit 1/2 Unit

This semester course is offered to introduce our students to the field of computer science. We will encourage collaboration and presentation using available Google tools as students develop and share portfolios. We will utilize Scalable Game Design and emphasize Computational Thinking. Students will work in multiple language environments, from the block language of Scratch to a high level language of Python, as a means to implement algorithms. This course also explores Logic Gates and other number systems such as binary and hexadecimal.

Introduction to Computer Science II

Grades 9,10,11,12

Final Assessment: School Exam

Prerequisite: Computer Science I

HS1905

Credit 1/2 Unit

A semester continuation of Introduction to Computer Science I with a more in depth emphasis on computational thinking with Python and Java utilized as a vehicle for algorithm implementation. This class prepares students for later Computer Science classes such as AP Computer Science Principles, or introductory computer science in college. Based on time and enrollment, there is potential to explore Mobile Programming.

AP Computer Science Principles

Grade 9, 10, 11, 12

Final Assessment: School Exam

Prerequisite: Algebra

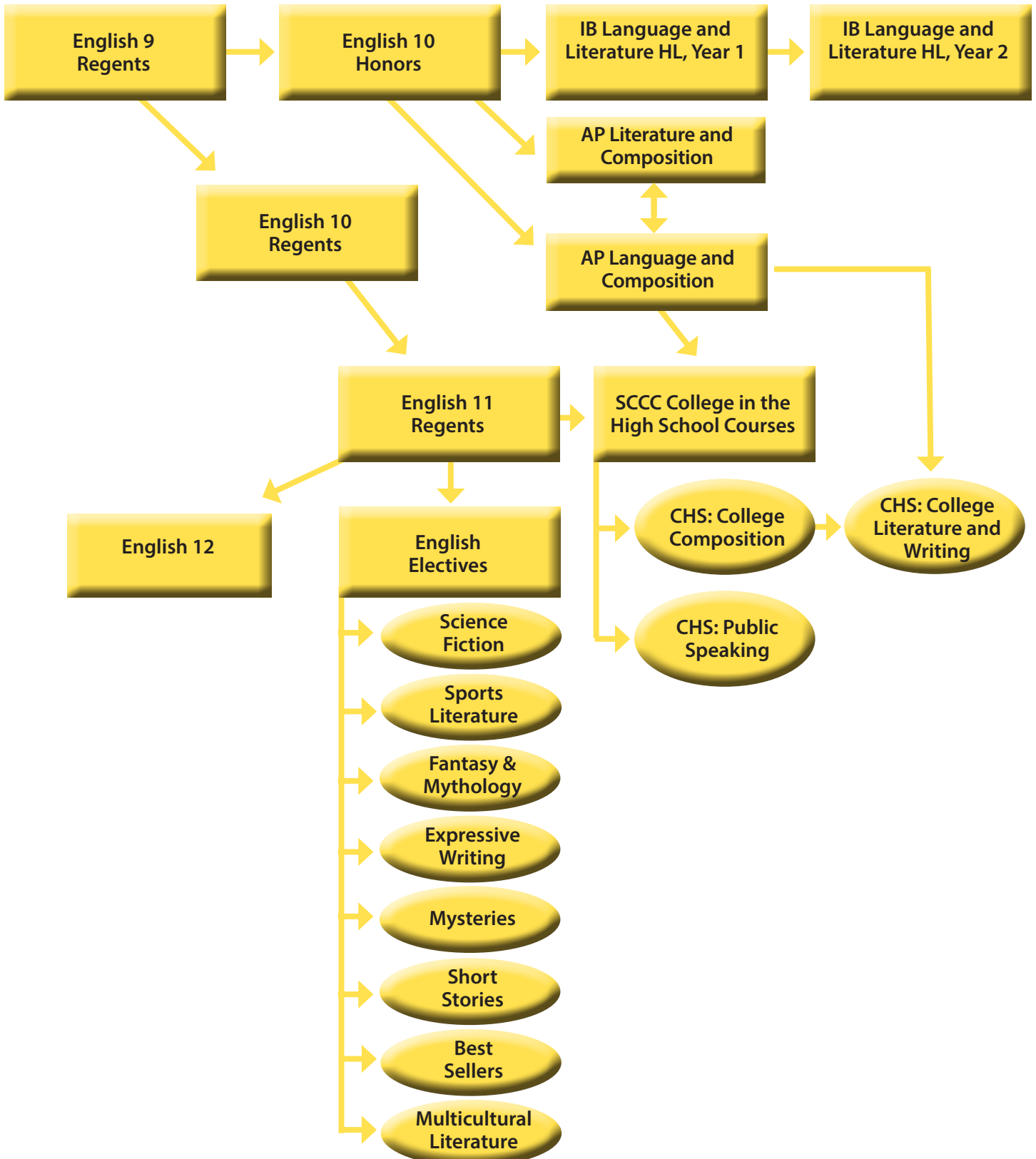
HS1906

Credit 1 Unit

This course introduces students to the foundational concepts of Computer Science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem-solving and real-world applications, AP Computer Science Principles prepares students for college and career.

English

Recommended Pathways in English



English

All students must take the NYS Regents Examination in English Language Arts. Four credits in English are also required for all students.

1 UNIT COURSES

English 9 Regents **HS1106**
Grade 9 **Credit 1 Unit**
Final Assessment: School Exam

English 9 Regents requires extensive reading outside of class, introduces students to various genres, and includes several classics. Students will complete papers for a variety of purposes and audiences. Vocabulary development and grammar skills will be stressed. English 9R is a required course for all 9th grade students. Students will be required to complete cumulative exams at the end of the 1st and 2nd semesters and maintain a writing portfolio as part of a final exam grade.

Literacy 9 **HS2269**
Grade 9 **Credit 1 Unit**

Literacy 9 is a course that is designed to reinforce the basic components offered in ninth grade English class. The class focus is on reading comprehension, de-coding, fluency, vocabulary, basic writing skills and grammar. The goal is to have reading play a bigger part in students lives. Students will learn more about what reading is and why and how we read. Students will explore various strategies and skills to improve reading comprehension. This course will increase abilities in the areas of reading and written language.

English 10 Regents **HS1101**
Grade 10 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: English 9 Regents

English 10 Regents concentrates on the mastery of a variety of composition forms, comprehension of literature, application of literary techniques, and extensive vocabulary development. Students will also complete an extensive historicalfiction research project. Students are expected to assume a high degree of personal responsibility for their own learning outside of class. A comprehensive exam will be given at the end of the 1st and 2nd semesters. Students are required to maintain a writing portfolio as part of a final exam grade.

English 10 Honors **HS1102**
Grade 10 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: English 9 Regents
Recommended Achievement Levels: 90 or better for English 9 Regents course work and final exam

English 10 Honors is designed for highly motivated students who have a strong interest in reading, writing, and critical analysis. Students will read complex literary and non-literary texts, and develop the skills of close reading and textual analysis. They will also study the writing process and complete essays for a variety of purposes and audiences. Vocabulary development will be stressed. Students will be expected to work independently, as well as be responsible for and capable of taking ownership of their learning. Students will be required to complete a summer reading and writing assignment. A comprehensive exam will be given at the end of the 1st and 2nd semesters and students will maintain a writing portfolio as part of their final exam grade. Students intending to enroll in AP or IB English classes in their 11th and 12th grade years should take this class.

English 11 Regents **HS1105**
Grade 11 **Credit 1 Unit**
Final Assessment: NYS Regents
Prerequisite: English 10 Regents

English 11 Regents concentrates on comprehensive skill development and refinement. The literature program stresses analysis of works by American writers. Students will develop a mature writing style, an extensive vocabulary, and independent study skills. Students will also read non-literary texts and gain experience with the rhetorical mode of argumentation and persuasion. Students will spend considerable time at the end of the second semester reviewing for the NYS Regents Examination in English Language Arts.

AP English Literature and Composition **HS1103**
Grade 11, 12 **Credit 1 Unit**
Final Assessment: School Exam
Recommended Achievement Levels: 90 or better for English course work and final exam in the prior year.

AP English Literature and Composition is for the student who wants to dive deeper into literature and poetry. The course engages students in careful reading and critical analysis of imaginative literature (novels, short stories, and poetry). Through the close reading of texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their

readers. As they read, students consider a work's structure, style, and themes, as well as smaller-scale elements such as the use of figurative language, imagery, symbolism, and tone. Reading for this course is deliberate and thorough, requiring time to understand a work's complexity, to absorb its richness of meaning, and to analyze how the meaning is embodied in literary form. Writing for the course will focus on critical analysis of literature. In addition to preparing for the AP exam in May, students will build their skills toward a literary research paper and a reflective portfolio. The portfolio will count as their final exam grade for the course. (11th grade students will also take the NYS Regents Examination in English Language Arts.)

AP English Language and Composition **HS1104**
Grade 11, 12 **Credit 1 Unit**

Final Assessment: School Exam

Recommended Achievement Levels : 90 or better for English course work and final exam in the prior year.

AP English Language and Composition course is designed to prepare students for the rigors of college reading and writing. Students will read literary and non-literary texts and hone their critical and analytical skills. Students will examine how language is employed for specific purposes within specific contexts to become informed consumers of information. Students will also study the writing process and gain experience with the various rhetorical modes: narration, description, exposition, and argumentation/persuasion. Additional course requirements include extensive outside reading, writing, and research. The course is designed for highly motivated students who have a strong interest in reading, writing, and critical analysis. In addition to preparing for the AP exam in May, students will build their skills toward a literary research paper and a reflective portfolio. The portfolio will count as their final exam grade for the course. (11th grade students will also take the NYS Regents Examination in English Language Arts.)

IB Language and Literature HL Year 1 **IB1130**
Grade 11 **Credit 1 Unit**

Final Assessment: NYS Regents

IB Language and Literature HL is the first course in a two-year program of advanced English studies. The course examines how language develops within specific cultural contexts, how it impacts the world, and how language shapes both individual and group identity. Students will read literary and non-literary texts in order to develop the skills of close reading and textual analysis. Students will focus closely on the language of texts they study and become aware of the role of each text's wider context in

shaping its meaning. Emphasis will also be placed on the writing process, and students will have the opportunity to complete essays of considerable depth and breadth. This course is designed for highly motivated students who have a strong interest in reading, writing, and critical analysis. Students will be required to complete a summer reading/writing assignment and several oral presentations. Students will take the NYS Regents Examination in English Language Arts in June.

IB Language and Literature HL Year 2 **IB1131**
Grade 12 **Credit 1 Unit**

Final Assessment: School Exam

Prerequisite: IB Language and Literature HL Year 1

IB Language and Literature HL is the second course in a two-year program of advanced English studies. The course examines the way language is used in the media (news-papers, magazines, Internet and film). The course also includes the compulsory study of a translated text which will encourage students to reflect on their own cultural assumptions. Students will read literary and non-literary texts in order to further develop their close reading skills. As in the previous year, students will have multiple opportunities to hone their writing skills. Argumentation and persuasion – a key rhetorical mode for college writing – will be emphasized. This course is designed for highly motivated students who have a strong interest in reading, writing and critical analysis. The curriculum will prepare students for the IB assessment. Students will be required to complete a summer reading/writing assignment and several oral presentations.

English 12 **HS2065**
Grade 12 **Credit 1 Unit**

Final Assessment: Final Project

This course extends growth in reading, writing, speaking, and listening skills. Students will be involved in a variety of experiences and activities which will further their appreciation of reading and their effectiveness as speakers and writers. Attention is given to individual choice in reading and writing. Journal writing, as a tool to extend and enrich thinking about literature and life, is included as part of this course. A final project is required for each student as completion of the course.

1/2 UNIT COURSES

All fall English courses will spend time working on writing application essays.

CHS College Composition **HS1126**
(College # ENG 123)

Grade 12 **Credit 1/2 Unit**
Final Assessment: School Exam
Prerequisite: English 11 Regents or AP English and a Score of 75 or Better on the English Regents Exam

CHS College Composition is a semester course that is designed to prepare seniors for the types of writing they will encounter in 2 or 4 year colleges. Students will study the writing process and participate in a writing workshop that includes conferencing, revising and editing. Writing assignments will allow students to gain experience with the various rhetorical modes: narration, description, exposition, and argumentation/persuasion. Students will also read model essays written by students and professional writers. Students who plan on enrolling in a 2 or 4 year college should take this course. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

CHS College Literature and Writing **HS1120**
(College # ENG 124)

Grade 12 **Credit 1/2 Unit**
Final Assessment: School Exam
Prerequisite: Successful completion of CHS College Composition or AP English Language and Composition with a grade of 75 or higher

CHS College Literature and Writing is a semester course that builds upon the writing techniques introduced in College Composition. In addition, students are encouraged to use writing to explore the ways in which literature functions as an art form. Students will survey various writers and genres to understand and explore the ways that these artists use literary forms of expression and techniques. Students will also complete a critical research project. A comprehensive exam is administered at the end of the course. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

CHS Public Speaking **HS1123**

(College # COM 105)
Grade 12 **Credit 1/2 Unit**
Final Assessment: School Exam
Prerequisite: English 11 or AP English

CHS Public Speaking is a college-level semester course that is designed to help students prepare and deliver powerful speeches that leave a lasting impression. Emphasis is on ethical and rhetorical reasoning, research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Students will explore the specific verbal and nonverbal public speaking techniques that master speakers use to create strong impressions, persuade, and inspire their audiences to act. The course employs a traditional text and other readings, as well as model speeches to guide students through topic selection, organization, language, and delivery. Working independently and with peer groups, students who wish to improve their speaking skills will be actively involved in every step of the process of public speaking preparation and execution. Much of class time will be spent preparing formal outlines in preparation for speech presentations. Assessments include traditional written content-based quizzes, formal speeches (including, but not limited to informative, persuasive, and demonstration), brief skill-building speeches, speech analyses, and both teacher and peer evaluations. Consistent attendance and regular presentations are necessary for success in this course. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

Best Sellers **HS1100**
Grade 11,12 **Credit 1/2 Unit**
Final Assessment: Final Project

Best Sellers is a semester course designed to introduce best-selling and literary-award-winning books written since 1960. This course will provide students the opportunity to read popular works with both timeless issues and current topics of interest. Students will read works as a class, as well as independently, by genre. Titles to be read may include: The Kite Runner, The Road, The Glass Castle, and Hillbilly Elegy. Students will be evaluated through quizzes, tests, written assignments, and projects.

Expressive Writing

Grade 11,12

Final Assessment: Final Project**HS1108****Credit 1/2 Unit**

Expressive Writing is a semester course that is designed to encourage self-expression through various forms of writing. Students will study well-written examples of journals, creative essays, poetry and fiction. Writing process, with an emphasis on revision, will be studied. Students will workshop their writing and be held accountable for the feedback they provide others. Ultimately, students will create a portfolio of their work for the class. The class should be taken by those students interested in the art of writing.

Fantasy & Mythology in Literature

Grade 11, 12

Final Assessment: Final Project**HS1119****Credit 1/2 Unit**

Fantasy and Mythology in Literature is a semester course that is designed to examine classical and modern myths and fantasy literature. Students will learn to identify the themes, archetypes, and patterns within this unique and interesting genre. Emphasis will be placed on reading, writing, and class discussion. Students who are interested in this genre and enjoy reading should take this class. Students will complete a research project on a myth of their choice, and they will read three full-length fantasy novels.

Multicultural Literature

Grade 11,12

Final Assessment: Final Project**HS1058****Credit 1/2 Unit**

This course focuses on world literature by and about people of diverse ethnic backgrounds. The purpose of this class is for all of us to gain an understanding and appreciation of culture, linguistic diversity, cultural values and perspectives (our own and those of others) by reading works of fiction written by authors of a variety of races/ethnicities/backgrounds/classes/genders/orientations and by discussing what we read.

Mysteries

Grade 11, 12

Final Assessment: Final Project**HS1116****Credit 1/2 Unit**

Mysteries is a semester course that is designed to give students the opportunity to explore and enjoy the mystery genre. Students will read and discuss the works and techniques of famous mystery writers. Also, students will learn about the plot development and themes commonly used in mystery writing. Students will write their own mystery using the techniques perfected by professional mystery writers. Students who enjoy reading and have a strong interest in the mystery genre should take this

course. The students in this course will be assessed using various methods including quizzes and tests, class discussions, journaling, writing assignments, and group and independent projects. A cumulative comprehensive exam will be administered at the end of the semester.

Science Fiction

Grade 11, 12

Final Assessment: Final Project**HS1122****Credit 1/2 Unit**

Science Fiction is a semester course that is designed to survey the evolution of science fiction. Students will read multiple novels and short stories covering such topics as genetics, space exploration, artificial intelligence, alien life, and time travel. Students will be expected to demonstrate a critical analysis of the works studied through discussion and writing. Emphasis will be placed on how science fiction facilitates social criticism. This class is designed for students who are genuinely interested in the themes of science fiction. The class will culminate in an assessment that requires students demonstrate an in-depth understanding of the genre. (This course is not approved by NCAA.)

Short Stories

Grade 11, 12

Final Assessment: School Exam**HS1115****Credit 1/2 Unit**

Short Stories is a semester course that is designed to introduce the genre of short fiction and develop an understanding of the basic elements of the craft. Students will read a variety of short stories surveying different writing styles and literary techniques. In addition, the class will pay close attention to the meaning(s) of each story via class discussion and written responses. Students will be required to keep a reading response journal for the course. Students who enjoy reading short works of fiction should enroll in this course. A comprehensive final exam will be given at the end of the course.

Sports Literature

Grade 11, 12

Final Assessment: Final Project**HS1117****Credit 1/2 Unit**

Sports Literature is a semester course that examines the functions and purposes of sports in our society. Students will explore the pros and cons of identifying oneself primarily as an athlete. An examination of how a sports team can influence and reflect the history, politics, values, stereotypes, and expectations of a society will be explored. Students will read a variety of fiction and non-fiction, news and magazine articles, and short stories. Required writing assignments include journals and longer analytical responses to the readings. Students who enjoy reading and are interested in sports and/or journalism should take this course. Tests and quizzes on the readings are given regularly, and students will be graded on their papers and

Fine Arts and Performing Arts – Music

Satisfactory completion of one credit in Musical Performance or Music in Our Lives may be used to meet the one credit of Art or Music required of all students to meet graduation requirements as prescribed by the NYS Education Department. Students may substitute a 5-unit sequence in music which must include Music In Our Lives and Music Fundamentals for the Foreign Language requirement of the Regents Diploma with Advanced Designation.

Music In Our Lives

Grade 9, 10, 11, 12

Final Assessment: School Exam

HS1526

Credit 1 Unit

Music In Our Lives is a high school level general music course. It is designed for students who have a strong interest in many aspects of music but may not have music reading skills. It is taught with a hands-on approach in which students learn by doing, and stresses the development of listening skills. The primary objectives are learning to appreciate multiple genres of music; listen intelligently to music performed by a variety of musical ensembles in both western and non-western styles; to perform music at a recreational level on a social, electronic, or orchestral instrument or voice; to compose, organize, or arrange music in some medium; to use basic library and computer resources for research; and to plan, develop, and present an in-depth special interest project.

Concert Band

Final Assessment: School Exam and Portfolio Assessment

Concert Band is a performance based course that is designed for students who have ongoing instruction on traditional Band instruments. These instruments are Flute, Oboe, Clarinet, Bassoon, Saxophone, Trumpet, French Horn, Trombone, Baritone Tuba and Percussion. Students will learn music history, theory and practice through performance. The student must have three years of prior instruction on the instrument as well as the ability to read music notation. Participation in concerts and other performances throughout the year is required. Students are expected to attend one pull-out lesson a week, or take private lessons. Additional credit may be earned with participation in Jazz Band and Chorus, which will meet once a week out of the Band rehearsal. Students will be graded on performance and portfolio assessment.

HS1509

Credit 1 Unit

Wind Ensemble

Final Assessment: School Exam and Portfolio Assessment

Prerequisite: One Year of Concert Band / Teacher Recommendation

HS1525

Credit 1 Unit

Wind Ensemble is a performance based course that is designed for students who have had ongoing instruction on traditional Band instruments and wish to challenge themselves further with NYSSMA Level V and VI literature. Students will learn music history, theory and practice through performance. The student must have three years of prior instruction on the instrument as well as the ability to read music notation. Participation in concerts and other performances throughout the year is required. Students are expected to attend one pull-out lesson a week, or take private lessons. Additional credit may be earned with participation in Jazz Band and Choir, which will meet once a week out of the Wind Ensemble rehearsal.

CHS Music Fundamentals I

(College # MUS 147)

Grade 9, 10, 11, 12

Final Assessment: School Exam, Performance Journal

Prerequisite: Musical Training, Experience in Music Performance

HS1553

Credit 1 Unit

CHS Music Fundamentals has the learning of Music Theory as the foundation, and is designed to increase understanding of music in the western and world cultures. Students who are looking to further their knowledge of music and/or study music at the college level will benefit from this course of study. Students will be involved in studying music theory, composition, and music history. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

Music Fundamentals II

Grade 11, 12

Final Assessment: School Exam, Performance Journal*Prerequisite: Music Fundamentals I***HS1536****Credit 1 Unit**

Music Fundamentals II is designed to increase understanding of music in the western and world cultures. Students who are looking to further their knowledge of music and/or study music at the college level will benefit from this course of study. Students will be involved in studying music theory, composition, and music history, as well as preparing for solo and group performances. Students will be responsible for projects based on composition, comparison of musical pieces from the western culture and those of other cultures such as Eastern/Asian and African/South American. Discussions of how music affects our world, and how our world is affected by music will be a part of this class. All students will be expected to keep a running log of their experiences in music, including daily involvement and performances. Students in this course will begin to prepare either a Group Performance or Solo Performance, and Creating, which will involve composition. It is suggested that students in the solo performance component have private instruction on voice or their chosen instrument. Students in the group performance component of this class must be enrolled in a school performance group. Assessments for this course will be based on the projects assigned, and a local final exam.

HS Concert Choir**Final Assessment: Performance, Sight Singing, and Written Evaluation****HS1535****Credit 1 Unit**

Concert Chorus is a performance based course that is designed for students that want to sing in an ensemble. Basic sight reading, vocal technique, and basic music theory skills are studied. Students are evaluated on sight-reading and part-singing every quarter. Willingness to participate in performances is needed. Attendance at all concerts is part of the course requirement. Choir is a performance based course that is designed for students who have ongoing instruction in choral singing and want to sing in a NYSSMA Level IV-VI ensemble.

Festival Choir**Final Assessment: Multiple Performances,****Sight Singing, and Written Evaluation***Prerequisite: One year of Concert Choir, ability to match pitch, and strong understanding of vocal technique and breath support / Teacher Recommendation***HS1510****Credit 1 Unit**

Festival Choir is a high-performance based course that is designed for students who have interest in ongoing instruction in choral singing and want to sing in a NYSSMA Level IV-VI ensemble. Strong sight reading skills, vocal technique, and strong music theory skills are required. Students are evaluated on sight-reading and part-singing skills for membership in Choir. Students are evaluated on sight-reading and singing every quarter. Participating in concerts, extra-curricular performance opportunities, and NYSSMA Majors Festival are required for the course.

Applied Music**Grade 9, 10, 11, 12****(Pass/Fail)****Final Assessment Performance Assessment based on materials studied throughout the year***Prerequisite: One full year of private study on the instrument/voice and **approval of the music coordinator*****HS1502****Credit 1/2 Unit**

Applied Music is for students who study an instrument or voice. Students in Applied Music do not have to participate in a school performing group. Private study must consist of a minimum lesson of 30 minutes outside the school day, 36 weeks of the school year. Students will provide a signed form for each marking period showing materials that are being studied. These forms will be provided to the student the first week of the school year by the music coordinator.



HS Concert Orchestra

Final Assessment: School Exam and Portfolio Assessment

HS1521

Credit 1 Unit

Concert Orchestra is a performance based course that is designed for students who have had ongoing instruction on traditional orchestra instruments. Students will learn music history, theory and practice through performance. The student must have three years of prior instruction on the instrument as well as the ability to read music notation. Participation in concerts and other performances throughout the year is required. Students are expected to attend one pull-out lesson a week, or take private lessons. Additional credit may be earned with participation in Jazz Band and Chorus, which will meet once a week out of the Concert Orchestra rehearsal. Students will be graded on performance and portfolio assessment.

Symphonic Orchestra

Final Assessment: School Exam and Portfolio Assessment

HS1551

Credit 1 Unit

Prerequisite: One Year of Concert Orchestra / Teacher Recommendation

Symphonic Orchestra is a performance based course that is designed for students who have had ongoing instruction on traditional orchestra instruments and wish to challenge themselves further with NYSSMA Level IV and V literature. Students will learn music history, theory and practice through performance. The student must have three years of prior instruction on the instrument as well as the ability to read music notation. Participation in concerts and other performances throughout the year is required. Students are expected to attend one pull-out lesson a week, or take private lessons. Additional credit may be earned with participation in Jazz Band and Chorus, which will meet once a week out of the Symphonic Orchestra rehearsal. Students will be graded on performance and portfolio assessment.



Fine Arts and Performing Arts - Theater

Successful completion of Introduction to Theater may be used to meet the one credit in Art or Music required of all students to meet the graduation requirements by the NYS Education Department. Students completing a 5-unit sequence in Fine Arts may use Introduction to Theatre as part of that sequence. Students may substitute a 5-unit sequence in Fine Arts for the Foreign Language requirement of a Regents Diploma with Advanced Designation.

Introduction to Theater

Grade 9, 10, 11, 12

Final Assessment: Performance Based Final Project

HS1524

Credit 1 Unit

Introduction to Theater is a full year course that will include study and practical application of performance skills and character development, as well as study of scenic, costume, and lighting design. Directing, stage managing, and acting will also be studied, and speakers in many of these fields will act as resources for skill development. Dramatic criticism and playwriting will also play a major role in this course.



Introduction to Acting

Grade 11, 12

Final Assessment: Performance Based Final Project

Prerequisite: Introduction To Theatre

HS1501

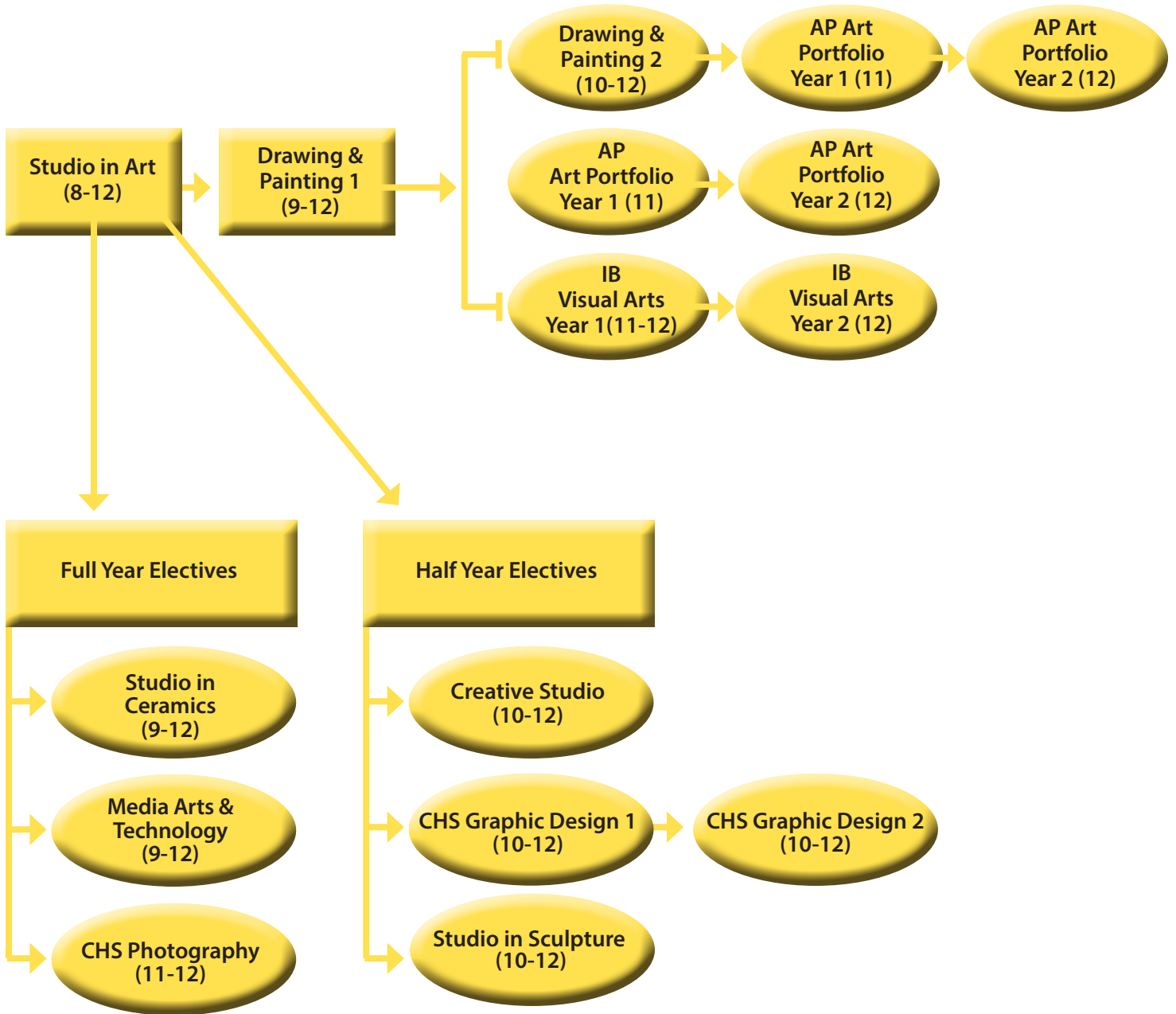
Credit 1 Unit

Introduction to Acting is a full year course that will explore the many methods of acting. Students will refine communication skills through verbal language as well as body language. History of acting and different types of literature are included in this performance-based class.



Fine Arts and Performing Arts – Visual Arts

Recommended Pathways in Art (Grade Requirements in Parentheses)



Fine Arts and Performing Arts – Visual Arts

Satisfactory completion of one credit in Studio in Art may be used to meet the one credit in Art or Music required of all students to meet graduation requirements as prescribed by the NYS Education Department. Students may substitute a 5-unit sequence in Art for the Foreign Language requirement of a Regents Diploma with Advanced Designation.

Studio in Art

Grade 9, 10, 11, 12

Final Assessment: School Exam

HS1500

Credit 1 Unit

Studio in Art is an introductory course that will allow students to explore and gain knowledge in a variety of different media throughout the school year. Basic principles, concepts, skills, and techniques will be introduced in preparation for upcoming projects. Drawing, painting, printmaking, ceramics, sculpture, and paper making are some of the topics that will be covered in the full year course. This course is REQUIRED for all students for a sequence in Art, and is a prerequisite course to any other art course offered. In addition, it is also recommended for students who wish to begin their education with a general art experience.

CHS Graphic Design 1

(College # Art 222)

Grade 10, 11, 12

Final Assessment: School Exam

Prerequisite: Studio in Art

HS1558

Credit 1/2 Unit

Graphic Design is a semester two-dimensional media course emphasizing the design elements of visual communication. Students will explore the fundamentals of layout, typography, design, photography and illustration. The project design course will expand students' media and design literacy. Students will create professional computer generated graphic designs using industry standard software, Adobe Illustrator and Photoshop. Eligible students will complete an application and submit payment and Certificate of Residency to SUNY Adirondack. Upon successful completion of the course with a C or better students will receive 3 credits from SUNY Adirondack. Any 10th grade student who wishes to receive college credit for this class must carry a minimum GPA of 85 or above in previous high school art classes.

CHS Graphic Design 2

(College # Art 252)

Grade 10, 11, 12

Final Assessment: Successful completion of culminating project

Prerequisite: Graphic Design 1

HS1542

Credit 1/2 Unit

CHS Graphic Design 2 explores the creative possibilities of multiple software applications currently used in the graphic arts field. Class instruction, demonstrations, and lab exercises prepare students to create a series of electronic images and digital illustrations. Students are encouraged to explore topics and conceptual themes related to their career interest. Originality is fostered by creating work based on original imagery and photographs. Instruction will include, but is not limited to, photo-retouching, digital painting, and multiple drawing techniques. Eligible students will complete an application and submit payment and Certificate of Residency to SUNY Adirondack. Upon successful completion of the course with a C or better students will receive 3 credits from SUNY Adirondack. Any 10th grade student who wishes to receive college credit for this class must carry a minimum GPA of 85 or above in previous high school art classes.

AP Art Portfolio

Grade 11, 12

Final Assessment: Portfolio

Prerequisites: Studio in Art, 90 % or above in Drawing and Painting I, teacher recommendation

HS1504

Credit 1 Unit

AP Art Portfolio is a self driven, high paced course which can be taken junior and/or senior year. Students may take the course their junior and senior years and submit a portfolio (for college credit) each year.* Students will create original 2-dimensional artwork using advanced skills and techniques based on their personal interests. Students are expected to plan, research, experiment and revise their work to show synthesis of ideas. AP Art Portfolio is designed for students who are seriously interested in pursuing a higher level of enrichment in the arts and will be expected to spend significant time working outside of the classroom. *In order to receive college credit twice, a student must submit to two different portfolios, 2D design and drawing.

Drawing and Painting I

Grade 9, 10, 11, 12

Final Assessment: Final Assessment*Prerequisite: Studio in Art*

Drawing and Painting I is a foundational two-dimensional course in drawing and painting. Students will explore a variety of materials and techniques, including pencil, charcoal, pastels, pen and ink, water colors, and acrylics. Students will be encouraged to think with imagination and originality. Emphasis will be placed on acquiring and improving observational drawing and painting skills. Students should maintain a portfolio for their work to take with them if they progress to Drawing and Painting II.

CHS Drawing and Painting II**(College # ART 128)**

Grade 11, 12

Final Assessment Project Based*Prerequisite: Studio in Art, Drawing and Painting I, or art teacher recommendation.*

CHS Drawing and Painting II is an advanced 2-dimensional course and is a continuation of Drawing and Painting I. Students will explore a variety of materials and techniques with an in-depth focus on the elements of art and principles of design. Emphasis will be placed on further development of observational drawing and painting skills in addition to expanding those skills into original works of art. Students should maintain a portfolio of their work should they progress to AP Art Portfolio. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

HS1514**Credit 1 Unit****Studio in Ceramics**

Grade 9,10,11,12

Final Assessment: School Exam/Project*Prerequisite: Studio in Art*

Studio in Ceramics is an elective course which provides an opportunity to explore hand-building, wheel throwing, sculpture, and glazing techniques. Skills, concepts, and elements related to clay will be introduced in preparation for all projects and assessments. Students will incorporate the relationship between form and function into sculptural and functional applications.

HS1508**Credit 1 Unit****CHS Photography
(College # ART 104)**

Grade 11, 12

Final Assessment: Project*Prerequisite: Studio In Art***HS1552****Credit 1 Unit**

CHS Photography is an introductory course designed to give students proficiency in the creative and technical possibilities of photography. Students learn the fundamentals of camera operation and imaging software to produce effective photographs. The course covers the elements of composition, historical aspects of photography, and photography as a means of personal expression and communication. Digital single-lens reflex cameras are provided for student use in class. Students will also work with 35 mm cameras, film development, enlarging and printing in the darkroom. Film and photographic paper will be provided. Students that are interested in receiving college credit from SUNY Adirondack must complete the course with a C or better, fill out an application, certificate of residency form and submit to the Guidance Department. SUNY Adirondack will then bill students directly in order to receive 3 credits.



Media Arts & Technology
Grade 9, 10, 11, 12
Final Assessment: Project

HS1519
Credit 1 Unit

This course offers a unique co-taught curriculum, linking Art and Technology, to bridge the gap between design and production. Students will be introduced to the principles of design and create artwork through various forms of media. Students will work with industry standard software in the Adobe Creative Cloud© to learn graphic design, photography, and digital video production skills and use them to produce pieces of unique artwork. Students will then be able to translate digital designs to physical objects using CNC equipment in a variety of mediums.

Studio in Sculpture
Grade 10, 11, 12
Final Assessment: Final Project
Prerequisite : Studio in Art

HS1523
Credit 1/2 Unit

Studio in Sculpture is a course that will allow students to explore and gain knowledge in a variety of sculptural areas throughout the semester. An emphasis on form and function will be incorporated into both abstract and utilitarian sculptural pieces. Basic principles, concepts, skills, and techniques will be introduced in preparation for upcoming projects. Paper, clay, foam, wire, plaster, and other various mixed media are some of the materials that will be worked with in the half year course.

IB Visual Arts SL/HL, Year 1
Grade 11

IB1550/IB1554
Credit 1 Unit

Final Assessment: Final grade will be a combination of formal portfolio of artwork and the Visual Arts Investigative workbook
Prerequisite: Successful completion Drawing & Painting I

This advanced-level art course will allow students to develop a comprehensive portfolio of student work. Students can expect to work with a variety of artistic mediums including drawing, painting, printmaking, mixed media, digital media, and sculpture. This work will showcase and relate to many forms of art in their many social, cultural, and historical contexts, while encouraging a global view of the art world around them. In addition, students will enhance their study and creation of art through the research and writing of art history. Student growth will also be evident through a detailed use of the Visual Arts Journal. This journal will serve as a personal record of knowledge and growth as students develop their ideas, techniques, visual organization, and most importantly, a written record of their self-reflection. Student work will conclude with an external review of their well-developed portfolio of artwork through a personally curated exhibition, process portfolio, and a comparative study.



IB Visual Arts SL/HL, Year 2**IB1551/IB1555****Grade 12****Credit 1 Unit****Final Assessment: Final grade will be a combination of formal portfolio of artwork and the Visual Arts Investigative workbook***Prerequisite: Successful completion of IB Visual Arts, year 1*

This advanced level art course is the second year of IB Visual Arts, and will allow students to continue higher level development of a competitive portfolio of advanced student artwork. Students can expect in-depth work with a variety of artistic mediums, and look to refine their ideas and processes from their work in the SL course. Students will continue to showcase and relate to many forms of art in numerous social, cultural, and historical contexts, while encouraging a global view of the art world around them. In addition, students will continue to enhance their study and creation of art through the research and writing of art history. Student growth will advance from the HL year 1, and be evident through a detailed use of the Visual Arts Journal. This workbook will serve as a personal record of knowledge and growth as students will develop their ideas, techniques, visual organization, and most importantly, a written record of their self-reflection. Student work will conclude with an external review of their well-developed portfolio of artwork through a personally curated exhibition, process portfolio and a comparative study.

Creative Studio**HS1540****Grade 10, 11, 12****Credit ½ Unit****Final Assessment: Project Based***Prerequisite: Studio in Art*

Creative Studio is a semester course for the art student who wants to explore new ways to work with paper, paint, recycled, or found objects. Students can look forward to inventing and experimenting with various materials using a variety of creative techniques for a highly personal artistic experience. Students will work on projects that focus on creativity, innovation, responsibility, independence, and self-directed learning. Fun and challenging projects will require concept-driven skills to make highly unique and personal two-dimensional and three-dimensional works of art. The learning artist will plan, implement, and evaluate their experiences and creative focus.



Health

All students must earn ½ credit in Health Education to meet the New York State requirement for graduation.

Health Education **HS1352** **Grade 10, 11, 12** **Credit 1/2 Unit** **Final Assessment: School Exam and Project**

The students will learn the knowledge necessary to be physically, mentally, and socially healthy, as well as the skills needed to create and maintain a healthy lifestyle. Students will take part in discussions and projects that encourage them to reflect on their own knowledge, attitudes, and behaviors.

Health Education Online **HS1388** **Grade 10, 11, 12** **Credit 1/2 Unit** **Final Assessment: Project**

This rigorous online option is ideal for highly organized, conscientious, independent learners. Students will learn the knowledge necessary to be physically, mentally, and socially healthy, as well as the skills needed to create and maintain a healthy lifestyle. Students are expected to interact with one another utilizing online forums similar to the discussions held in the classroom. The course is delivered by means of Schoology, an online learning platform. Only students who are unable to fit Health Education in the typical classroom setting into their schedule will be considered.

Basic Principles of Nutrition **HS1387** **Grade 11, 12** **Credit 1/2 Unit** **Final Assessment: Project** *Prerequisite: Biology (Final Average Above 85) and Health (Final Average Above 90)*

Basic Principles of Nutrition is a semester Science elective course that provides an overview of fundamental nutrition principles that are important for health and wellness. This course emphasizes an understanding of food, eating and physical activity trends, and an analysis of personal nutritional needs. Topics include the functions of major nutrients and their food sources, as well as menu planning.



World Languages

All students must earn one unit of high school credit by either passing the second language final (Checkpoint A) exam at the end of 8th grade or successfully completing a 9th grade course of study for both a Local or Regents Diploma. For a Regents Diploma with Advanced Designation, two additional credits in foreign language plus a score of at least 65% on the level 3 Checkpoint B exam is required, or students may substitute a 5-unit sequence in Art, Music, or Career Technical Education for the additional foreign language requirement.

French – Level 1

Grade 9

Final Assessment: School Exam

Prerequisite: Below 65% on the 8th grade final or no previous language

HS1302

Credit 1 Unit

French 1 is intended for students who did not achieve at least a 65% on the final exam at the end of 8th grade, or students who have never studied a language before. In this course students will learn the basic vocabulary, idioms, and grammar structures found in Checkpoint A of the NYS learning standards. Upon successful completion of French 1, students will earn one unit of Foreign Language credit required for graduation from high school.

French – Level 2

Grade 9, 10, 11, 12

Final Assessment: School Exam

Prerequisite: 65% or better on the 8th grade final exam and teacher recommendation

HS1300

Credit 1 Unit

French 2 advances the student to the intermediate level of language acquisition. The study of grammar structures, vocabulary, and idioms becomes more intensive in this course. The study of French culture and aspects of everyday life is continued. Students are expected to demonstrate proficiency in listening, speaking, reading, and writing in order to progress to the next level.

CHS French – Level 3

(College #FRE 122)

Grade 10, 11, 12

Final Assessment: School Exam

Prerequisite: French 2 and teacher recommendation

HS1315

Credit 1 Unit

In CHS French 3 the study of grammar structures, vocabulary, and idioms progresses to a more sophisticated level. Emphasis is on conversation, compositions, authentic readings, written assignments, and oral reports of more advanced content. The study of geography, culture, and lifestyles of French speaking countries is continued. Students must demonstrate competency in listening, speaking, reading, and writing skills in order to be successful on the local final (Checkpoint B) exam in June. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

UHS French 4

(College # AFRE 221Y)

Grade 11

Final Assessment: School Exam

Prerequisite: French 3 and teacher recommendation

HS1303

Credit 1 Unit

A major component of UHS French 4 is to develop an awareness of the relationship between language and culture. The class provides for intense language acquisition through listening comprehension, reading comprehension, oral expression, written communication, and cultural understanding. UHS French 4 requires students to continue developing their communicative competence by interacting orally and in writing in French. The majority of class will be conducted in French, and students are expected to communicate in French most of the time. A variety of authentic texts from several French-speaking countries will be used and students will perform both individual and group work in order to build upon and improve communication skills. This course is designed for highly motivated students who have a strong background and interest in French. Eligible students will complete a UHS application and submit the tuition payment

directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. All UHS French 4 students will be required to take the final exam at the end of the course.

IB French SL Year 1 **IB1303**
(College # AFRE 221Y)
Grade 11 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: French 3

IB French 4 course is the first year of an intensive two-year course. This class is required for IB Diploma candidates who have chosen French as their Language B. This class may also be taken for UHS college credit. A major component of this class is to develop an awareness of the relationship between language and culture. The class provides for intense language acquisition through listening comprehension, reading comprehension, oral expression, written communication, and cultural understanding. Students continue developing their communicative competence by interacting orally and in writing in French. Class will be conducted entirely in French, and students are expected to communicate in French at all times. A variety of authentic texts from several French-speaking countries will be used and students will perform both individual and group work in order to build upon and improve communication skills. This course is designed for highly motivated students who have a strong background and interest in French. Summer reading and writing assignments will be assigned for those planning to take this class. Students may complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. UHS candidates will be required to take the UHS final exam in June of 11th grade.

UHS French 5 **HS1304**
(College # AFRE 222Y)
Grade 12 **Credit 1 Unit**
Final Assessment: School Exam
Prerequisite: UHS French 4 and teacher recommendation

This accelerated course is intended to refine skills practiced in UHS French 4. Students will work towards increasing listening and reading comprehension, oral expression, written communication, and cultural understanding. The majority of class will be conducted in French, and students are expected to speak French most of the time. Students will work individually and in groups to analyze, debate,

and discuss a variety of issues and authentic texts in French. This course is designed for highly motivated students who have a strong background and interest in French. Eligible students will complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. All UHS French 4 students will be required to take the final exam at the end of the course.

IB French SL Year 2 **IB1304**
(College # AFRE 222Y)
Grade 12 **Credit 1 Unit**
Final Assessment: IB Assessments
Prerequisite: IB or UHS French 4

IB French 5 SL course is the second part of the two year IB French course or year two of the UHS French Program. This rigorous, accelerated course is intended to refine skills practiced in IB / UHS French 4. Students will work towards increasing listening and reading comprehension, oral expression, written communication, and cultural understanding. The class will be conducted entirely in French, and students are expected to speak French at all times. Students will work individually and in groups to analyze, debate, and discuss a variety of issues and authentic texts in French. This course is designed for highly motivated students who have a strong background and interest in French. Summer reading and writing assignments will be assigned for those planning to take this class. IB candidates must take one (oral) internal assessment and one (written) external assessment which will be given between January and April of 12th grade. Two additional external (written) assessments will take place in May of 12th grade. Students may complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. UHS candidates will be required to take the UHS final exam in June of 12th grade.

Spanish – Level 1**Grade 9****Final Assessment: School Exam***Prerequisite: Below 65% on the 8th Grade Final or no previous language***HS1310****Credit 1 Unit**

Spanish 1 is intended for students who did not achieve at least a 65% on the final exam at the end of 8th grade, or students who have never studied a language before. In this course students will learn the basic vocabulary, idioms, and grammar structures found in Checkpoint A of the NYS learning standards. Upon successful completion of Spanish 1, students will earn one unit of Foreign Language credit required for graduation from high school.

Spanish – Level 2**Grade 9, 10, 11, 12****Final Assessment: School Exam***Prerequisite: 65% or better on the 8th grade final exam and teacher recommendation***HS1306****Credit 1 Unit**

Spanish 2 advances the student to the intermediate level of language acquisition. The study of grammar structures, vocabulary, and idioms becomes more intensive in this course. The study of Spanish culture and aspects of everyday life is continued. Students are expected to demonstrate proficiency in listening, speaking, reading, and writing in order to progress to the next level.

CHS Spanish – Level 3**(College # SPA 122)****Grade 10, 11, 12****Final Assessment: School Exam***Prerequisite: Spanish 2 and teacher recommendation***HS1314****Credit 1 Unit**

In CHS Spanish 3 the study of grammar structures, vocabulary, and idioms progresses to a more sophisticated level. Emphasis is on conversation, compositions, authentic readings, written assignments, and oral reports of more advanced content. The study of geography, culture, and lifestyles of Spanish speaking countries is continued. Students must demonstrate competency in listening, speaking, reading, and writing skills in order to be successful on the local final (Checkpoint B) exam in June. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

**UHS Spanish 4
(College # ASPN 200)****Grade 11****Final Assessment: School Exam***Prerequisite: Spanish 3 and teacher recommendation***HS1308****Credit 1 Unit**

A major component of UHS Spanish 4 is to develop an awareness of the relationship between language and culture. The class provides for intense language acquisition through listening comprehension, reading comprehension, oral expression, written communication, and cultural understanding. UHS Spanish 4 requires students to continue developing their communicative competence by interacting orally and in writing in Spanish. The majority of class will be conducted in Spanish, and students are expected to communicate in Spanish most of the time. A variety of authentic texts from several Spanish-speaking countries will be used, and students will perform both individual and group work in order to build upon and improve communication skills. This course is designed for highly motivated students who have a strong background and interest in Spanish. Eligible students will complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of "C" or better, students will be awarded 4 credits from SUNY Albany. All UHS Spanish 4 students will be required to take the final exam at the end of the course.

IB Spanish SL Year 1**(College # ASPN 200)****Grade 11****Final Assessment: School Exam***Prerequisite: Spanish 3***IB1308****Credit 1 Unit**

IB Spanish 4 SL is the first year of an intensive two-year course. This class is required for IB Diploma candidates who have chosen Spanish as their Language B. This class may also be taken for UHS college credit. A major component of this class is to develop an awareness of the relationship between language and culture. The class provides for intense language acquisition through listening comprehension, reading comprehension, oral expression, written communication, and cultural understanding. Students continue developing their communicative competence by interacting orally and in writing in Spanish. Class will be conducted entirely in Spanish, and students are expected to communicate in Spanish at all times. A variety of authentic texts from several Spanish-speaking countries will be used and students will perform both individual and group work in order to build upon and improve communication skills. This course is designed for highly motivated students who have a strong background and interest in Spanish. Summer reading and writing assignments will be assigned for those planning to take this class. Students may complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. UHS candidates will be required to take the UHS final exam in June of 11th grade.

UHS Spanish 5**(College # ASPN 201)****Grade 12****Final Assessment: School Exam***Prerequisite: UHS Spanish 4 and teacher recommendation***HS1309****Credit 1 Unit**

This accelerated course is intended to refine skills practiced in UHS Spanish 4. Students will work towards increasing listening and reading comprehension, oral expression, written communication, and cultural understanding. The majority of class will be conducted in Spanish, and students are expected to speak Spanish most of the time. Students will work individually and in groups to analyze, debate, and discuss a variety of issues and authentic texts in Spanish. This course is designed for highly motivated students who have a strong background and interest in Spanish. Eligible students will complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high

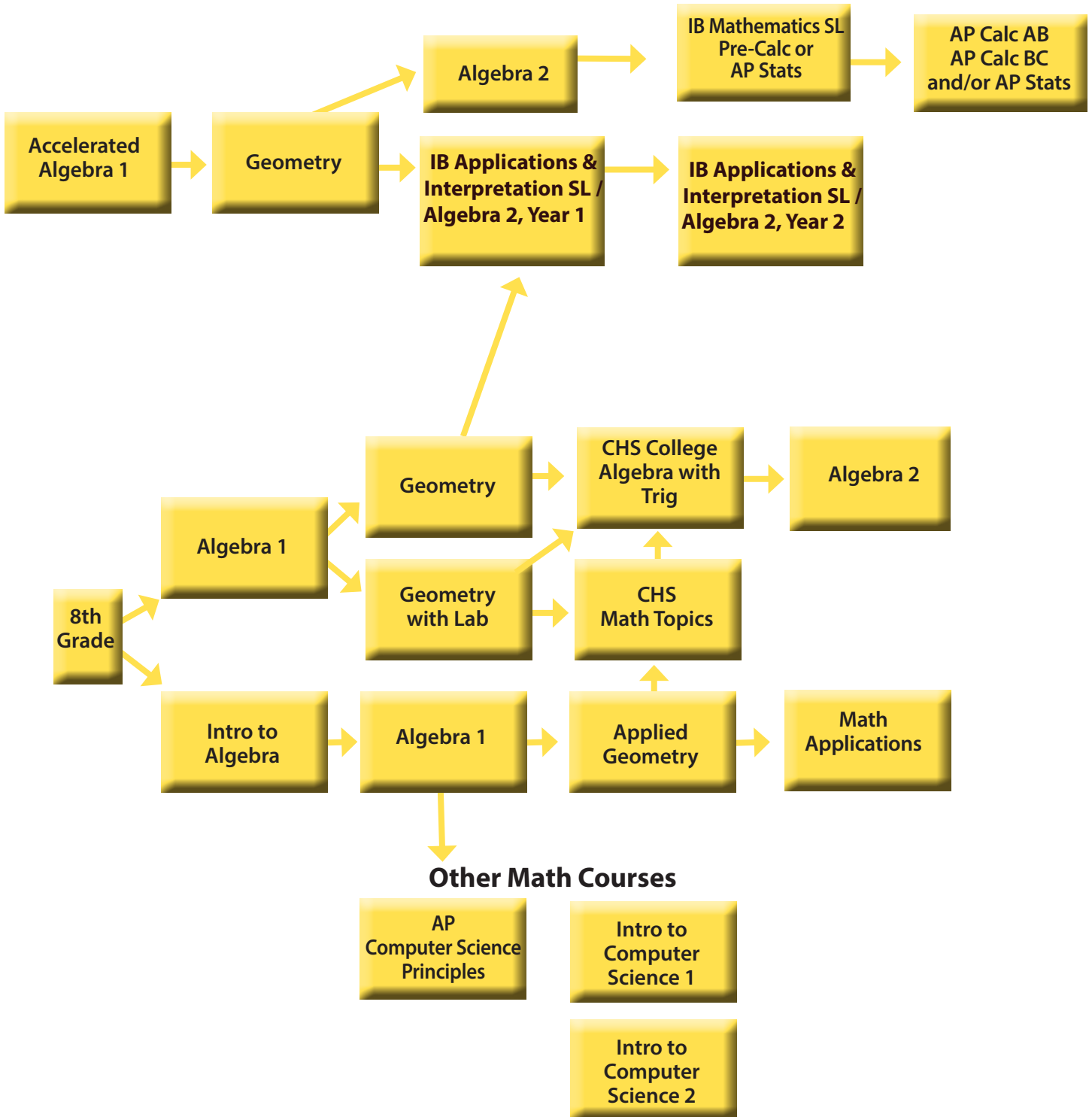
school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. All UHS Spanish 4 students will be required to take the final exam at the end of the course.

IB Spanish SL Year 2**(College # ASPN 201)****Grade 12****Final Assessment: IB Assessments***Prerequisite: IB or UHS Spanish 4***IB1309****Credit 1 Unit**

IB Spanish 5 SL is the second part of the two year IB Spanish course or year two of the UHS Spanish Program. This rigorous, accelerated course is intended to refine skills practiced in IB / UHS Spanish 4. Students will work towards increasing listening and reading comprehension, oral expression, written communication, and cultural understanding. The class will be conducted entirely in Spanish, and students are expected to speak Spanish at all times. Students will work individually and in groups to analyze, debate, and discuss a variety of issues and authentic texts in Spanish. This course is designed for highly motivated students who have a strong background and interest in Spanish. Summer reading and writing assignments will be assigned for those planning to take this class. IB candidates must take one internal (oral) assessment and one external (written) assessment which will be given between January and April of 12th grade. Two additional external assessments (written) will take place in May of 12th grade. Students may complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 4 credits from SUNY Albany. UHS candidates will be required to take the UHS final exam in June of 12th grade.

Mathematics

Recommended Pathways in Math



Mathematics

All students must earn three credits in Mathematics to meet requirements for graduation with a Regents Diploma or Local Diploma. In addition, all students must take a New York State Regents exam in Math for a Regents Diploma and three Regents exams for a Regents Diploma with Advanced Designation.

Introduction to Algebra **HS1724** **Grade 9, 10, 11, 12** **Credit 1 Unit** **Final Assessment: School Exam**

Recommended: Students who have yet to solidify their understanding of the skills taught in Math 8. Note - Students who have earned passing grades in Math 8 should consider Algebra.

Introduction to Algebra is a full year course designed to help students who have traditionally struggled with mathematics and need additional time to master foundational skills such as, solving a multi-step equation, before enrolling in Algebra I. Students will study properties of real numbers, rational numbers, and equations, in addition to linear, exponential and quadratic functions. This course will conclude with a local final exam. A TI-84 graphing calculator is required for this course. (This course is not approved by NCAA.)

Algebra 1 **HS1215** **Grade 9, 10, 11, 12** **Credit 1 Unit** **Final Assessment: Regents in Algebra**

Recommended: Math 8 or successful completion of Introduction to Algebra

Algebra is a full year course that is the study of functions specifically addressing the relationships between quantities and reasoning with equations and graphs. Students will study linear, quadratic, and exponential functions, and descriptive statistics. The final for this course is the Regents in Algebra 1. A TI-84 graphing calculator is required for this course.

Algebra 1 Learning Lab **HS1215L** **Grade 9, 10, 11, 12**

** This is a non-credit bearing course
Prerequisite: Enrolled in Algebra I*

Algebra 1 Learning Lab is an opportunity for students to obtain additional help outside of the classroom to assist them in skill development, understanding of concepts and preparation for the Algebra I Common Core Regents Exam.

Applied Geometry **HS1211** **Grade 10, 11, 12** **Credit 1 Unit** **Final Assessment: School Exam** *Prerequisite: Algebra*

Applied Geometry is a full year course following the Geometry curriculum at a slower pace. Students will explore triangle congruence, similarity, and properties of lines, triangles, quadrilaterals, circles, surface area, and volume through real world problems. Students will also be introduced to the writing of Euclidean and coordinate proofs based on logic and properties of geometric figures. This concludes in a local final. A TI-84 graphing calculator is required for this course. (This course is not approved by NCAA.)

Geometry Lab **HS1212** **Grade 9, 10, 11** **Credit 1 Unit** **Final Assessment: Regents in Geometry** *Prerequisite: Pass Algebra with an average of 75% or higher*

Geometry Lab is a full year course covering the same Geometry curriculum with additional time built into the schedule for practice and activities that will strengthen skills. This course will conclude with the Regents in Geometry. A TI-84 graphing calculator and compass are required for this course.

Geometry **HS1210** **Grade 9, 10, 11** **Credit 1 Unit** **Final Assessment: Regents in Geometry** *Prerequisite: Pass Algebra with an average of 80% or higher*

Geometry is a full year course that offers a more complex study of geometric relationships. Students will learn logic, congruent and similar triangles, transformations, congruency, and similarity. Other topics include constructions, planar figures, and solid geometry. This course concludes with the Regents in Geometry. A TI-84 graphing calculator and compass are required for this course.

Applications for Mathematics **HS1723** **Grade 11, 12** **Credit 1 Unit** **Final Assessment: School Exam** *Prerequisite: Applied Geometry*

Applications for Mathematics is a full year course for students who have been traditionally challenged by math concepts. Students will review basic arithmetic and algebraic fundamentals through a survey of topics in finite mathematics and corresponding applications, including percents, area, perimeter, volume, logic, matrices, modular arithmetic, probability, statistics, and financial models. It

can be used as a third or fourth credit for those who have completed Algebra. This course will conclude with a school exam. (This course is not approved by NCAA.)

**CHS Mathematical Topics
(College # MAT 145)**

HS1726

Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Geometry Or Applied Geometry

CHS Mathematical Topics is a full year course designed to acquaint students with various areas of mathematics. Students will be exposed to a variety of mathematical topics and their applications to the world around us. Topics covers voting and apportionment, problem solving, logic, Euler diagrams, the mathematics of graphs, Euclidean and non-Euclidean geometry, modular arithmetic, group theory, numeration systems, sets, and combinatorics. This course will conclude with a local exam. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

**CHS College Algebra with Trigonometry
(College # MAT 154)**

HS1732

Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Algebra and Geometry

CHS College Algebra with Trig, also known as MAT 154, includes functions, functional notation, linear and quadratic functions, graphs of basic functions and graphing techniques such as shifts and reflections, constant slope and average rate of change, solving systems of linear and nonlinear systems, and complex numbers. The course also covers solving quadratic equations using factoring, the square root property and the quadratic formula, exponential and logarithmic equations and functions, trigonometric functions, the graphs of sine, cosine and tangent functions, and a brief introduction to vectors. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

Algebra 2

HS1219

Grade 10, 11, 12

Final Assessment: Regents in Algebra 2

Prerequisite: Regents Algebra and Geometry. It is strongly recommended students entering this course earned an overall average of 80% or better in both prerequisite courses.

Algebra 2 is the expanded study of functions, building upon the functions studied in Algebra. Students will study polynomial, rational, radical, logarithmic, and trigonometric functions, and will learn to draw inferences and conclusions from data (probability and statistics). Students will be expected to model real-life scenarios with mathematical functions, construct viable arguments, and recognize and utilize patterns in order to solve problems. This course will conclude with the Regents in Algebra 2 in June. A TI-84 graphing calculator is required for this course.

**CHS Pre-Calculus
(College # MAT 167)**

HS1204(11)/HS1205(12)

Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Successful completion of Algebra 2, 80% or higher and an 80% or higher on the Regents in Algebra 2; or successful completion of CHS College Algebra & Trigonometry. 85% or higher, and a passing score on the Regents in Algebra 2.

CHS Pre-Calculus is for students planning to take calculus or planning to continue in a mathematics or science related field after graduation from high school. Students will study topics including conics, theory of equations, functions, polar coordinates, matrices, graphical analysis, and an introduction to differential calculus. Pre-Calculus 11 includes additional calculus topics and prepares students for advancement into AP Calculus AB/BC. Pre-Calculus 12 is intended for students who do not plan to enroll in AP Calculus AB/BC. The final exam for this course is a local exam. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

AP Calculus AB/BC and/or UHS
(College # AMAT 112)
Grade 12

AB – HS1203
BC – HS1220
Credit 1 Unit

Final Assessment: School Exam

AB Prerequisite: CHS Pre-Calculus 11 (75% or higher) or IB Mathematics SL BC Prerequisite: Teacher Recommendation

In AP Calculus the following topics are studied: analytical geometry, differential calculus of algebraic functions, geometrical and physical applications of integration, the calculus of elementary transcendental functions, and the application of transcendental functions. BC Calculus also covers topics in series and sequences, polar and parametric equations and additional integration techniques.

Mandatory AP Examinations in Calculus AB and Calculus BC will be given in May at cost to individual students.

Upon satisfactory completion of the AP examination, each student may receive college credit in Calculus as determined by the collegiate institution(s) accepting the student for admission. Eligible students will complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 3 credits from SUNY Albany. Students will have both a local exam and an AP exam for this course.

AP Statistics and/or UHS
(College # AMAT 108)

HS1213

Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Successful completion of Algebra 2 and a passing grade on the Regents in Algebra 2

AP Statistics covers the syllabus of a college Elementary Statistics course and includes such topics as standard deviation, line regression, how to write a questionnaire, and how to interpret data. The mandatory AP examination for Statistics will be given in May at cost to individual students. Upon satisfactory completion of the AP examination each student may receive college credit in Statistics as determined by the collegiate institution(s) accepting the student for admission. Eligible students will complete a UHS application and submit the tuition payment directly to SUNY Albany. The curriculum and grades are determined by the high school teacher. Upon receiving a final grade of “C” or better, students will be awarded 3 credits from SUNY Albany. Students will have both a final local exam and an AP exam for this course.

IB Math: Applications & Interpretations SL Year 2
IB1228

Grade 12

Credit 1 unit

Final Assessment: School Exam

*Prerequisite: IBMAI Y1/A2 or A2**

This course is the second year in the two year IB Math applications and Interpretations SL course sequence. IBMAI SL Y2 is designed for the IB student who is interested in the more practical side of mathematics. We will explore the underlying mathematical concepts and harness the power of technology to solve problems involving analytical geometry, 3D geometry, trigonometry, voronoi diagrams, statistical testing, periodic functions, and elementary calculus. Students will be active participants in class and will be expected to work independently and collaboratively. A major focus of this year will be expressing your mathematical thinking in writing. This focus culminates in a mathematical exploration (internal assessment) in which the student will conduct a mathematical investigation of a topic of their choosing and write a report explaining their findings. In May, students will take the IB MAI external exams which cover material from both year 1 and year 2 and in June they will take a local final exam.

IB Mathematics: Analysis & Approaches /PreCalcSL

IB1228
Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Algebra 2

IB Mathematics SL is a full-year course that introduces several important mathematical concepts such as algebra and functions, trigonometry, vectors, probability, statistics, and differential, and integral calculus. The intention of the class is to expose students to these concepts in a clear and consistent way. The course is designed to foster independence in their mathematical learning. This course will provide the students an opportunity to learn how students across the world see and learn mathematics. Students will be encouraged to use alternative notation and to study lives and contributions of several mathematicians. Students will be expected to learn how the attitudes of different societies towards specific areas of mathematics are demonstrated, and how the language of mathematics is spoken by all countries. Students are provided with opportunities to take a considered approach to these activities and to explore different ways

of approaching a problem. Students will be required to develop skills they need for communicating mathematical ideas. Mathematics SL is designed for students who possess a strong background in mathematics and are looking to pursue a career in which a deeper understanding and appreciation of mathematical concepts is required. The internally assessed component, the mathematical exploration, offers students a framework for developing independence on their mathematical learning by engaging in mathematical investigation and modeling. At the end of the course, students will take the IB Mathematics SL external assessment.

**IB Math: Applications & Interpretation SL / Algebra 2,
Year 1** **IB1232**

Grade 11, 12

Credit 1 Unit

Final Assessment: School Exam

Prerequisite: Geometry

This course is the first year in the two year IB Math Applications and Interpretations SL course sequence. Applications and Interpretations SL is designed for the IB student who is interested in developing their mathematical knowledge so that they can solve practical problems in other areas of study. Students considering careers in social sciences, natural sciences, statistics, business, some economics, psychology, and design, may want to consider this course. In year one we will study linear, quadratic, polynomial, radical, rational, exponential, logarithmic and trigonometric expressions, functions, and their graphs. Students will be active participants in class and will be expected to work independently and collaboratively, and to express their mathematical thinking orally and in writing. Students will take a local exam in June, and will also be eligible to take the NY State Regents Exam in Algebra 2 in June.

Introduction to Computer Science I **HS1681**

Grade 9, 10, 11, 12

Credit 1/2 Unit

Final Assessment: School Exam

This semester course is offered in an effort to introduce our students to the field of computer science. Emphasize Computational Thinking through the study of Python programming language. Students will explore topics including Turtle Graphics, console interaction, conditionals, looping, functions and parameters, strings, and data structures. A main focus is on learning to break problems down into manageable pieces and solving them one by one.

Introduction to Computer Science II **HS1905**
Grade 9, 10, 11, 12 **Credit 1/2 Unit**
Final Assessment: School Exam

A semester continuation of Introduction to Computer Science I with a more in depth emphasis on computational thinking using the programming language of Java. Students will continue with topics from the first semester course, but will focus on algorithm implementation, methods, and the concept of object oriented programming. This class prepares students for introductory computer science in college. There is potential to explore additional topics and languages.

AP Computer Science Principles **HS1906**
Grade 9,10, 11, 12 **Credit 1 Unit**

Final Assessment: School Exam

Prerequisite: 80% or higher in Algebra

This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.

Physical Education

All students must complete two units of credit in Physical Education over four years. All students must enroll in Physical Education each year of high school.

Physical Education 9/10

Grade 9, 10

Final Assessment: None Given

HS1394

Credit 1/2 Unit

Physical Education 9/10 is an essential and basic part of the total education program. Participating students will learn activities designed for lifetime fitness and wellness. Our students develop the skills, knowledge, and attitudes necessary for a healthy lifestyle.

Physical Education 11/12

Grade 11, 12

Final Assessment: None Given

HS1392

Credit 1/2 Unit

Physical Education 11/12, is a full year course where the students obtain knowledge of team sports, practice individual sports, and gain an understanding of the importance of lifetime wellness. A wide variety of sports and activities are provided so that the student has the opportunity to develop an understanding of health, wellness, fitness, and sports in a safe and healthy environment.

Physical Education: Smart Steps CTE/BOCES Online

Grade 11, 12

Credit 1/2 Unit (Pass/Fail)

HS1364

Smart Steps is an exercise walking program. It requires no gym, no exercise machines, and no personal trainers. This program is all about physical movement, footsteps, miles, energy expenditure, exertion, activity, games, active living, and pedometers. The primary emphasis will be placed on active lifestyle, personal awareness of activity levels, and understanding/appreciating the benefits of a walking program. This course is offered as a full year Pass/Fail, course for any BOCES student.

Physical Education: Guard Start Grade 9, 10

HS1351
Credit 1/4 Unit

Guard Start will teach water safety and the duties and responsibilities of a lifeguard. However, this course will not certify students to be a lifeguard. It will build a foundation of knowledge, attitudes, and skills in preparation for the American Red Cross Lifeguard Training course. Upon turning 15 years of age and completion, participants will be prepared to enroll in the American Red Cross Lifeguard Training Course.

Physical Education: Lifeguarding Grade 9, 10, 11, 12

Final Assessment: School Exam

HS1353
Credit 1/4 Unit

Lifeguarding includes three components: Lifeguard Training (including First Aid), CPR for the Professional Rescuer, and a Waterfront Lifeguarding Module. Each component has a written and practical exam, and each has a card for successful completion of activities. You must be 15 years old to take this course. Students who achieve 80% on the written exam and successfully complete the practical skills test will earn lifeguard certification.

Physical Education Curriculum

9th and 10th Grade Curriculum

Each student will participate in a minimum of 2 activities in the categories below. Expect a minimum of four assessments per year. **Activities will be chosen based on weather, equipment and facility availability**

Invasion Games

- Soccer
- Team Handball
- Field / Floor Hockey
- Basketball
- Mat Ball/Kickball
- Flag Football
- Speedball
- Ultimate frisbee
- Lacrosse

Fitness Activities

- Aquatics
- Dance
- Resistance Training
- Adventure activities / games
- Hiking
- Track & Field
- Cross fit
- Aquatics
- Yoga / Piliates
- Kickboxing
- Orienteering / Geocatching

Target Games

- Archery
- Frisbee Golf
- Dodgeball
- Golf
- Fencing
- Backyard Games
- Fencing

Net/Wall Activities

- Tennis
- Volleyball
- Badminton
- Pickleball
- Dodgeball

Feilding / Striking

- Whiffleball
- Tennis
- Self Defense
- Softball
- Mat Ball / Kickball

11th and 12th Grade Curriculum

Each student will participate in a minimum of 2 activities in the categories below. Expect a minimum of four assessments per year. **Activities will be chosen based on weather, equipment and facility availability**

Invasion Games

- Speedball
- Ultimate frisbee
- Lacrosse
- Floor / Field Hockey
- Flag Football
- Soccer
- Team Handball
- Basketball
- Mat Ball / Kickball

Fitness Activities

- Aquatics
- Yoga / Piliates
- Resistance Training
- Adventure activities / games
- Aerobics/Zumba/ Kickboxing
- Orienteering / Geocatching
- Snowshoeing
- Dance
- Hiking
- Cross fit
- Track & Field

Target Games

- Backyard Games
- Golf
- Dodgeball
- Frisbee Golf
- Archery

Net/Wall Activities

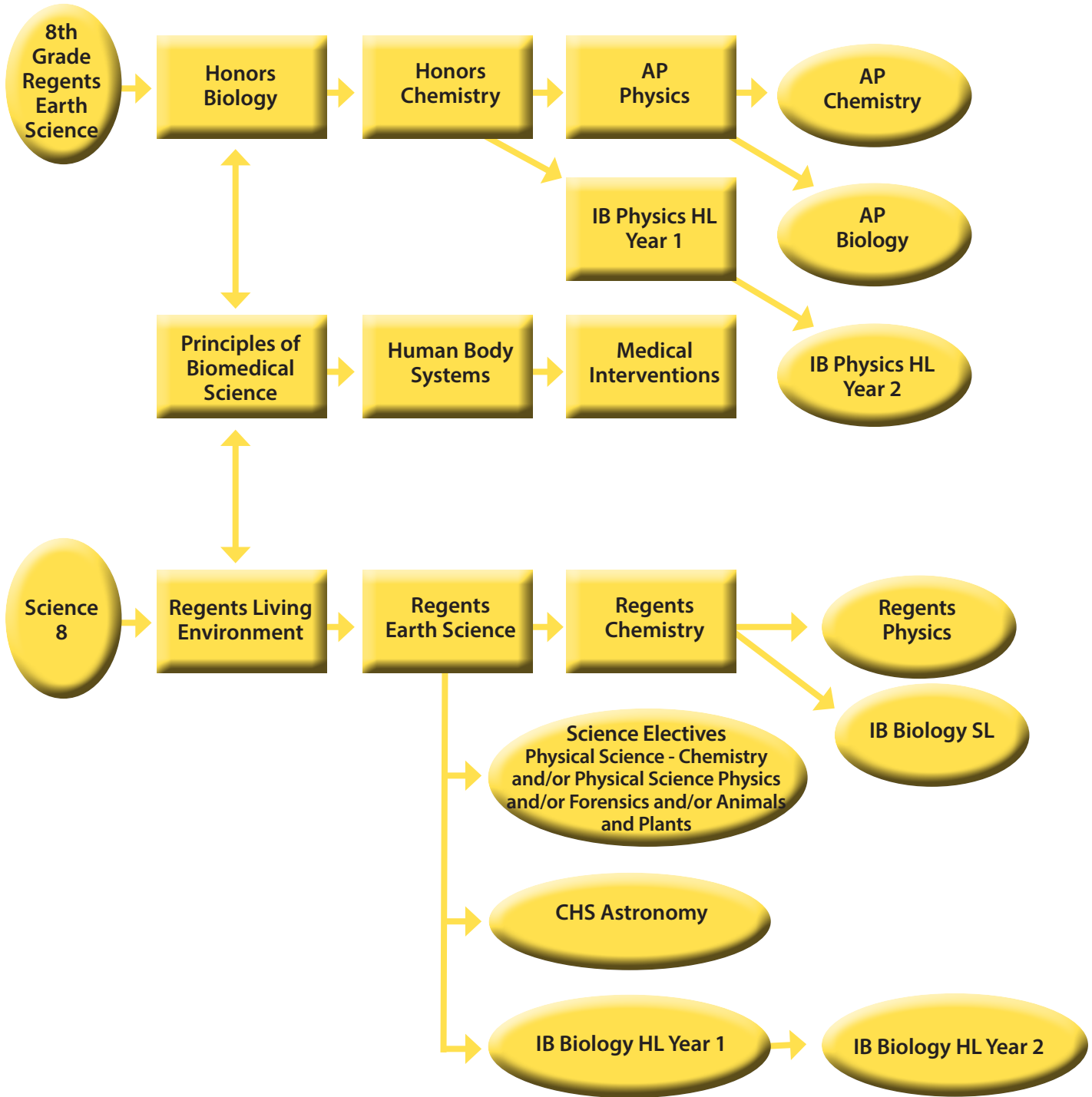
- Badminton
- Pickleball
- Volleyball
- Dodgeball
- Tennis
- Volleyball

Feilding / Striking

- Softball
- Tennis
- Mat Ball / Kickball
- Whiffleball

Science

Recommended Pathways in Science



Science

All students must earn three credits in Science and pass one Regents exam in order to meet the requirements for graduation. One credit must be in life science and the second in a physical science. The third credit of science can be in either a physical science or a life science. Students must pass two Regents exams (at least one in a life science) for the Regents Diploma with Advanced Designation. Section 207 of NYS Education Law Section 8.2(c) of the rules of the Board of Regents states that in order to qualify to take a Regent's examination in any of the Regents sciences a student must complete 20 hours of laboratory experience with satisfactory documented laboratory reports. The 20 hours of laboratory experience must be in addition to the required classroom instruction associated with earning a unit of credit.

Biology Regents

Grade 9, 10, 11, 12

Final Assessment: NYS Regents

HS1255

Credit 1 Unit

Regents Biology is a full year laboratory course in modern biology. It is designed to provide broad general understandings of the fundamental principles of life sciences and to provide an extension of understanding in selected areas. Students will work through storylines using science and engineering practices to learn about Ecology, Homeostasis, and disease in order to explain phenomena. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. This course culminates in the Living Environment Regents exam.

Biology Honors

Grade 9, 10, 11, 12

Final Assessment: NYS Regents

Prerequisite: Completion of Earth Science with at least a 90 average for course/exam

HS1254

Credit 1 Unit

Biology Honors is a full year laboratory course that will cover topics in much greater detail and at a much faster pace in order to challenge students with exceptional ability. This course is designed for highly motivated students that want to challenge themselves and are willing to work independently. Expectations are higher for investigative

skills and critical thinking. The course includes additional laboratory work such as self-designed experiments based on student research each semester. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. This course culminates in the Living Environment Regents exam.

Earth Science Regents

Grade 10, 11, 12

Final Assessment: NYS Regents

HS1261

Credit 1 Unit

Regents Earth Science is a full year laboratory course. Topics include geology, meteorology, hydrology, and astronomy with an emphasis on our Earth and the processes affecting it. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. This course culminates in the Physical Setting/Earth Science Regents exam.

Chemistry Regents

Grade 10, 11, 12

Final Assessment: NYS Regents

Prerequisite: Earth Science course/Regents exam with a 70 or above. Students must have successfully completed Algebra course/Regents exam with a 70 or above.

HS1260

Credit 1 Unit

Regents Chemistry is a full year laboratory course and deals with the fundamental relationships between matter and energy as well as the changes which matter undergoes. Topics include atomic structure, chemical bonding, stoichiometry, kinetics, equilibrium, acid-base theory, oxidation-reduction, and organic reactions. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. This course culminates in the Physical Setting/Chemistry Regents Exam.

Chemistry Honors

Grade 10, 11, 12

Final Assessment: NYS Regents

Prerequisite: Successful completion of Living Environment and Earth Science with at least a 90 average for the course/exam. Strong foundational skills in solving algebraic equations. Concurrent enrollment in Algebra 2.

HS1259

Credit 1 Unit

Chemistry Honors is a full year laboratory course with significant supplemental content beyond the Regents Chemistry curriculum and a faster pace of instruction. This course will prepare students who are planning for post-secondary study in a STEM major with the content and skills needed for advanced study in the sciences.

This course is designed for highly motivated students that want to challenge themselves with a fast paced curriculum and are willing to work independently to solve complex problems. Students will seek abstract patterns that unify the relationships between matter and energy. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. The course culminates in the Physical Setting/Chemistry Regents exam.

Physics Regents

Grade 11, 12

Final Assessment: NYS Regents

Prerequisite: Successful completion of or concurrent enrollment in Algebra 2

HS1268

Credit 1 Unit

Physics Regents is a full year laboratory course and provides a systematic introduction to the main principles of the physical world. Topics covered include mechanics, energy, electricity and magnetism, waves and modern physics. Regents Physics emphasizes the development of problem-solving skills. Students should have an understanding of algebra and trigonometry. Students who intend to continue study in any science-based technical field are encouraged to enroll in this course. Students must complete 20 hours of hands on laboratory experiences with satisfactory lab reports to successfully complete the course. This course culminates in the Physical Setting/Physical Regents Exam.

Biomedical Sciences

The Biomedical Science Program is a sequence of courses that provide a hands-on, real-world problem-solving approach to learning developed by Project Lead the Way. Project Lead The Way is the nation's leading provider of science, technology, engineering, and math (STEM) curriculum programs. Students explore the concepts of human medicine, as well as the prevention, diagnosis and treatment of disease. Students work collaboratively to investigate and design innovative solutions for health challenges of the 21st century. This sequence of courses is designed for students interested in pursuing a career in biological sciences, emergency services, healthcare, or medicine. This is a college preparatory program and students should be concurrently enrolled in a college prep science class.

PLTW Principles of Biomedical Sciences **HS1280**

Grade 9, 10

Credit 1 Unit

Final Assessment: End of Course Exam and Final Project

Corequisite: College Preparatory Science Class

Principles of Biomedical Sciences is a full year introductory course which covers the study of human medicine, research processes, and an introduction to bioinformatics. This course is designed for students interested in pursuing a career in the biological sciences, emergency services, healthcare, or medicine. In this course, students investigate the human body systems and various health conditions. An ongoing theme throughout the year is the analysis of various factors that led to the death of a fictional person. Students investigate lifestyle choices and medical treatments that might have prolonged the person's life. The course culminates with a written exam and a project. Students need to be concurrently enrolled in a Regents science class.

PLTW Human Body Systems

Grade 10, 11, 12

HS1282

Credit 1 Unit

Final Assessment: End of Course Exam and Final Project

Prerequisite: Successful completion of Principles of Biomedical Sciences and Regents Biology

Corequisite: College preparatory science class

Human Body Systems is a full year course which covers human body systems and studies how the "parts of a whole" work together to maintain homeostasis, good health, and keep the human body functioning at an optimal level. Students will work through interesting real-world cases, and often play the role of biomedical professionals to solve medical mysteries. Students will design experiments, explore various medical careers, investigate the structures and functions of body systems, and use data acquisition software to monitor body functions such as breathing rate and body strength. Students will forensically analyze bones, complete DNA electrophoresis, and dissect cow eyes, pig kidneys, and rabbit leg muscles. Students will also perform a blood-type lab, urinalysis, a visual perception lab, and analysis of broken bones with x-rays. This course culminates with a written exam and a project. Students need to be concurrently enrolled in a Regents science class.

PLTW Medical Interventions

Grade 11, 12

Final Assessment: End of Course Exam and Final Project*Prerequisite: Successful completion of Human Body Systems
Corequisite: College Preparatory Science Class*

Medical Interventions is a full year course which covers the design and development of various medical interventions that extend and improve the quality of life. Topics in the course include diagnostics, pharmacology, surgery, cancer, gene therapy, prosthetics, rehabilitation, and supportive care. College level labs are an essential part of this course and students will develop a skill set for performing these labs. Students will study the design and developments of various medical interventions including robotic surgery, cochlear implants, and prosthetic limbs. Students will learn about the history of medical interventions, and read current scientific literature to be aware of cutting edge developments. The course culminates with a written exam and a project. Students need to be concurrently enrolled in a Regents or AP science class.

Non-Regents Science Courses**Physical Science - Physics**

Grade 11, 12

Final Assessment: School Exam*Prerequisite: Successful completion of Algebra and a passing score on the NYS Algebra Regents exam.*

Physical Science - Physics is a semester course anchored in phenomena - observable events in the natural world. Students will use the science and engineering practices to explore and develop an understanding of phenomena. The course is project based and will cover forces and interactions (mechanics), energy, electricity and magnetism. Students will work in teams therefore academic success is dependent on attendance. Students need to have successfully completed Algebra prior to taking this course.

HS1283

Credit 1 Unit

Physical Science - Chemistry

Grade 11, 12

Final Assessment: School Exam

Physical Science - Chemistry is a semester course anchored in understanding phenomena - observable events in the natural world related to chemistry. Students will use the science and engineering practices to explore and develop an understanding of phenomena related to the structure of matter and chemical reactions.

HS3104

Credit 1/2 Unit

Forensics

Grade 11, 12

Final Assessment: School Exam

Forensics is a semester life science course that focuses on crime scene management, evidence collection, and analysis. Labs may include fingerprinting, organic analysis of drugs and poisons, hair and fiber identification, glass analysis, document analysis and blood work, and will culminate in thorough investigation and processing of crime scenes. Students will complete labs for many of the topics in the course. Therefore, academic success in this class is dependent on regular attendance.

HS1265

Credit 1/2 Unit

Animals and Plants of the Northeast

Grade 11, 12

Final Assessment: School Exam

Animal & Plants of the Northeast is a semester survey life science course that acquaints students with the wealth of plant and animal life found primarily in the Northeastern United States. Topics covered in the course include trees, birds, fish, reptiles, amphibians, insects, and mammals. Each topic will include classification schemes, anatomy, physiology, and species identification. This course is designed for students interested in developing an appreciation for and sense of stewardship toward our wildlife resources. The course culminates with a final project.

HS1275

Credit 1/2 Unit

Basic Principles of Nutrition

Grade 10, 11, 12

Final Assessment: Project*Prerequisite: Biology (Final Average Above 85) and Health (Final Average Above 90)***HS1387**

Credit 1/2 Unit

Basic Principles of Nutrition is a semester Science elective course that provides an overview of fundamental nutrition principles that are important for health and wellness. This course emphasizes an understanding of food, eating and physical activity trends, and an analysis of personal nutritional needs. Topics include the functions of major nutrients and their food sources, as well as menu planning.

UHS/PLTW Principles of Engineering **HS1654**
Grade 10, 11, 12 **Credit 1 Unit**
Final Assessment: End of Course Assessment & Project
Recommended Achievement Levels: Successful completion of UHS/PLTW DDP

Principles of Engineering is a full year course that explores various technology systems and manufacturing processes. Principles of Engineering is a project-based course that helps students understand the field of engineering and engineering technology. Students will learn how engineers and technicians use math, science, and technology in a problem-solving process to benefit people. The course also includes concerns about social and political consequences of technological change. This course culminates with a final project and an end of course assessment. Students who maintain an 85% average in this course, and score at least a 6 on the PLTW end of course assessment, are eligible to apply for 3 college credits from Rochester Institute of Technology (RIT). This course may count for the third year of Science required for high school graduation.

CHS Astronomy - Exploring Space **HS1256**
(College # AST 123)
Grade 11, 12 **Credit 1/2 Unit**
Final Assessment: School Exam/Research Paper
Recommended Achievement Levels: Successful completion of at least two Regents science classes, Algebra, and Geometry

This semester course examines present and future methods of space exploration, and looks at what scientists have learned so far about our solar system. Topics include the basic science, instruments, technology, dangers, benefits, costs, and practical and political importance of space exploration. Discussion topics include space stations, moon colonies, manned missions from Mercury through Apollo, and current international space missions. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

CHS Astronomy - Cosmic Systems **HS1262**
(College # AST 127)
Grade 11, 12 **Credit 1/2 Unit**
Final Assessment: School Exam/Research Paper
Recommended Achievement Levels: Successful completion of at least two Regents science classes, Algebra, and Geometry

This semester course introduces students to the scientific study of the cosmic system. Emphasis is placed on the evolution, life cycle, and characteristics of the stars and galaxies. Information from recent discoveries by the space-based telescope and other 21st century telescopes are presented. Other topics include constellation identification, life in the universe, and current theories of cosmology. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

AP Physics 1/CHS **HS1266**
(College # PHY 153/154)
Grade 11, 12 **Credit 1 Unit**
Final Assessment: NYS Regents
Recommended Achievement Levels: Successful completion of Regents Chemistry and Algebra 2 with a 90 or better for the courses/exams

AP Physics is a full year college level, in-depth algebra-based course that provides a systematic introduction to the main principles of physics. Topics covered are aligned with both the NYS Regents Physical Setting/Physics Core Curriculum and the AP Physics Year 1 syllabus. Topics include Newtonian Mechanics, Electricity and Magnetism, Waves, and Atomic Physics. AP Physics Year 1 emphasizes the development of problem-solving skills. It is intended for strong students who have shown exceptional success in Science and Math courses. Students should have a firm understanding of algebra and trigonometry. Students will be expected to complete a summer assignment for the course. At the end of the course, students will take both the NYS Physical Setting/Physics Regents and the AP Physics Year 1 exam. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

AP Biology/CHS**HS1253****(College # BIO 141/142)****Grade 11, 12****Credit 1 Unit****Final Assessment: School Exam**

Recommended Achievement Levels: Successful completion of both Regents Chemistry and Algebra 2 with a 90 or better for the courses/exams. In addition, students should have either successfully completed Regents or AP Physics with a 90+ average OR should be concurrently enrolled in Regents or AP Physics

AP Biology is a full year college level introductory biology course designed to cover the material typically presented in a two-semester college class. It is a rigorous, fast-paced course covering topics including biochemistry, cells, organisms, populations, ecology, evolution, and genetics. The course is intended for strong students who have shown exceptional success in both Biology and Chemistry courses. Students will complete a summer assignment for the course. At the end of the course, students will take the AP Biology exam as well as a local written final exam. Students are expected to enroll in the SCCC College in the High School Program (CHS) with Schenectady County Community College and register for the opportunity to earn college credits. Students will complete registration online in class and must turn in a Certificate of Residency. Upon receiving a final grade of C or better, students will be awarded 8 credits from SCCC. These credits may be transferrable to SUNY schools and other institutions of higher learning.

AP Chemistry**HS1258****Grade 11, 12****Credit 1 Unit****Final Assessment: School Exam**

Recommended Achievement Levels: Successful completion of Regents/Honors Chemistry and Algebra 2 with a 90 or better for the courses/exams. Students should be enrolled in either Pre-Calculus or Calculus. In addition, students should have either successfully completed Regents or AP Physics with a 90+ average, OR should be concurrently enrolled in Regents or AP Physics

AP Chemistry is a full year college level introductory chemistry course designed to cover the material typically covered in a two-semester college class. The course will encompass lecture, lab, and independent study. AP Chemistry is a rigorous, fast-paced course covering topics including structure and states of matter, reactions, and descriptive chemistry. It is intended for students with strong academic skills who have shown exceptional success in high school science and math courses. Students who have experienced success in Honors level science classes are much better prepared for the workload and

expectations of an AP science class. Students will be expected to complete a summer assignment. At the end of the course, students will take the AP Chemistry exam and complete a culminating project.

IB Biology SL**IB1262****Grade 11, 12****Credit 1 Unit****Final Assessment Year 1: School Exam**

Prerequisite: Successful completion of at least 2 Regents Science classes. Chemistry is strongly recommended.

IB Biology SL is a rigorous, fast-paced, one-year experimental science course for students who wish to understand the unity and diversity of living organisms on the molecular, cellular, organic and ecological level. The general aims of IB Biology SL are to provide content develop an understanding of how biological information is collected, analyzed and evaluated, develop experimental skills, and understand how biology has social consequences in the global context. The course will include extensive independent work. The course is intended for students who are strong in their academics and have shown exceptional success in their previous science courses. Topics covered during the course include: measurement and error analysis, cell biology, molecular biology, genetics, ecology, evolution, biodiversity, and human physiology. Students will be expected to complete a summer assignment for the course. Laboratory investigations are an integral part of this course. Throughout this course students will design and carry out appropriate experiments, which at times are self-directed, and communicate the results. Students will complete a collaborative experimental science project with students in other experimental science courses. The independent laboratory work produced by each student will be moderated by the IBO and will contribute to the student's overall IB score in the subject. At the end of the year, students will be ready to sit for the IB Biology SL exam.

IB Biology HL Year 1/Year 2 **IB1294/IB1298**
Grade 11, 12 Credit 2 Units
Final Assessment Year 1: School Exam

Prerequisite: Successful completion of at least 2 Regents Science classes. Chemistry is strongly recommended.

IB Biology HL is a rigorous, fast-paced, two-year experimental science course for students who wish to understand the unity and diversity of living organisms on the molecular, cellular, organic, and ecological level. The general aims of IB Biology HL are to provide content develop an understanding of how biological information is collected, analyzed and evaluated, develop experimental skills, and understand how biology has social consequences in the global context. The course is intended for strong students who have shown exceptional success in their previous science courses. Topics covered during the course include measurement and error analysis, genetics, evolution, ecology, the interrelationships between organisms and the environment, human reproduction and physiology, biochemistry, plants, microbiology, and biotechnology. Students will be expected to complete a summer assignment for the course. Laboratory investigations are an integral part of the course. Throughout this course students will design and carry out appropriate experiments, at times self-directed, and communicate the results. Students will complete a collaborative experimental science project with students in other experimental science courses. The independent laboratory work produced by each student will be moderated by the IBO and will contribute to the student's overall IB score in the subject. At the end of the two-year sequence students will be ready to sit for the IB Biology HL exam.

IB Physics HL Year 1/Year 2 **IB1296/IB1297**
Grade 11, 12 Credit 2 Units
Final Examination Year 1: NYS Regents

Prerequisite: Successful completion of at least 2 Regents Science classes and Algebra 2
Corequisite: IB Mathematics SL or Pre-Calculus

IB Physics HL is a rigorous, two-year experimental science course that provides students with a conceptual and mathematical framework from which to analyze the physical world around them. Topics covered during the course include measurement and error analysis, mechanics, thermal physics, oscillations and waves, electromagnetism, electric currents, and atomic and nuclear physics. Practical (laboratory) investigations are an integral part of the course. Students will be expected to complete a summer assignment. Throughout this course students will design and carry out appropriate experiments and communicate the results to a wide audience. During year one students will complete a collaborative experimental science project with students in other experimental science courses. The independent laboratory work produced by each student will be moderated by the IBO and will contribute to the student's overall IB score in the subject. At the end of the first year, students will be required to sit for the NYS Regents Physics examination. At the end of the two-year sequence, students will be required to sit for the IB Physics HL exam.

Social Studies

Graduation Requirements

9th Grade

Global History 9
or
AP World History I

10th Grade

Global History 10
or
AP World History II
(AP World I is strongly recommended prior)

11th Grade

US History and Government
or
CHS American History to 1877
AND
CHS American History since 1877
or
AP United States History
or
IB History of the Americas: Year 1

12th Grade

Participation in Government (Semester) or CHS Government (Semester)
AND
Economics (Semester)
or
AP Government and Politics / Economics (Full Year)
or
AP Macroeconomics / Government (Full Year)
or
IB History of the Americas: Year 2 (Full Year)

**Students can take both AP Government and AP Macroeconomics*

Social Studies Electives

- Sociology (Semester)
- CHS Psychology (Semester)
- IB Psychology (Semester)
- Social Change: War and Peace - the Civil War through World War I (Semester)
- Social Change: Race, Gender and Sexual Orientation (Semester)

Social Studies

All students must earn four credits by passing Global History 9 and 10, US History, Economics, and Participation in Government. In addition all students must take a NYS Regents exam in Global History and US History.

9th Grade

Global History 9 Regents

Grade 9

Final Assessment: School Exam

HS1159

Credit 1 Unit

Global History 9 is the first of four required units of social studies. Global History 9 is designed to focus on the five social studies standards, common themes that recur across time and place, and eight historical eras. The course stresses methods of social sciences as applied to a chronological study of history from ancient civilizations to the eve of the French Revolution. Students will be required to take a local exam in June.

AP World History I

Grade 9

Final Assessment: School Exam

HS1165

Credit 1 Unit

AP World I is the first half of Advanced Placement World History. Students taking this course should have the intention of continuing on to the second half of AP World History in 10th grade. Course content includes an overview of world history from Prehistory, the classical world through the Early Middle Ages. The course content will intensify at 1200 through 1750. This course will make demands on students that are equivalent to those of an introductory college course. This course fulfills the requirement for Global History. Students will be expected to read more extensively, complete more in depth and challenging writing assignments, do more individual study, and go into topics in greater depth than in Global History 9. Students will be required to take a local exam in June.

10th Grade

Global History 10 Regents

Grade 10

Final Assessment: NYS Regents

Prerequisite: Global History 9

HS1158

Credit 1 Unit

Global History 10 is the second of four required units of social studies, and serves as the second year of the 9-10 Global History sequence. Global History 10 is designed to focus on the five social studies standards, common themes that recur across time and place, and eight historical eras. The course stresses methods of social science as applied to a chronological study of history from the 1750's to the present. Students are required to take a Regents exam on material from Global History 10 at the end of the course.

AP World History II

Grade 10, 11, 12

Final Assessment: NYS Regents

Prerequisite: AP World History I or Global History 9

HS1166

Credit 1 Unit

AP World History II is the second year of a two year course. Course content focuses primarily on the past thousand years of the global experience from about 1200 C.E. to the present, highlighting changes in international frameworks and comparisons especially among major non-European societies. This course will make demands on students that are equivalent to those of an introductory college course. This Advanced Placement course prepares students for the AP World History examination. Students enrolled in this course are expected to take the AP World History exam. Students will also take the Regents Exam in Global History in June. This course fulfills the requirement for Global History 10.

11th Grade**United States History and Government Regents****Grade 11****Final Assessment: NYS Regents***Prerequisite: Global History 10***HS1152****Credit 1 Unit**

United States History and Government is organized into twenty-seven historical units. This course will provide students with an understanding of the basic principles of the Constitution, the cultural heritage of the United States that support our democracy, and how individuals and groups have influenced public policy and change. All students will be required to take a Regents examination in June.

CHS American History to 1877 (College # HIS 227)**Grade 11 (or 12 as an elective)****Final Assessment: School Exam and NYS Regents****HS1902****Credit 1/2 Unit**

CHS American History to 1877 introduces students to American history from the pre-Columbian period to Reconstruction. It covers political, economic, social, and cultural forces that have shaped the evolving American nation and its interactions with the world during this time. This course is designed for students with a strong interest in American history. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning. Students in 11th grade MUST enroll in both CHS American History to 1877 and CHS American History Since 1877 in order to satisfy the 11th grade NYS History Requirements and will take the US History Regents Exam.

CHS American History Since 1877 (College # HIS 229)**Grade 11 (or 12 as an elective)****Final Assessment: School Exam and NYS Regents****HS1903****Credit 1/2 Unit**

CHS American History Since 1877 introduces students to key events, people, and ideas in American history from the Reconstruction period to the recent past. It focuses on diverse political, economic, social, and cultural forces that have shaped the American nation and its interactions with the rest of the world during this time. It also explores the methods and skills historians use to reconstruct the past. This course is designed for students with a strong interest in American history. Students have the option to enroll in the SCCC College in the High School Program (CHS) with

Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning. Students in 11th grade MUST enroll in both CHS American History to 1877 and CHS American History Since 1877 in order to satisfy the 11th grade NYS History Requirements and will take the US History Regents Exam.

AP United States History**Grade 11****Final Assessment: NYS Regents***Prerequisite: AP World History II or Global History 10***HS1163****Credit 1 Unit**

AP United States History is a course that provides a general overview of the history of the United States. In chronological order, students will explore America's past, examining the cultural, political, geographic, economic and technological changes that have taken place and have helped to shape us and guide us as a nation today. Topics will include issues relating to the discovery of the New World through the latter part of the 20th century. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials – their relevance to a given interpretive problem, their reliability, and their importance – and to weigh the evidence and interpretations presented in historical scholarship. Students enrolled in this course will read extensively, interpret a wide variety of primary and secondary sources, and interact with electronic media. Students enrolled in this course will be expected to complete a summer reading program. This Advanced Placement course prepares students for the AP United States History examination. Students enrolled in this course are expected to take the AP United States History exam. Students will also take the Regents Exam in United States History & Government in June. This course fulfills the requirement for United States History & Government.

IB History of the Americas HL Year 1

Grade 11

Final Assessment: NYS Regents*Prerequisite: Global History 10 or AP World History II**Recommended Achievement Levels: Teacher recommendation; 85 or better in Global History and on the Global History Regents*

The International Baccalaureate Programme in History is an intensive two-year study designed to provide highly motivated students with a rigorous program that will examine various aspects of history in great depth. In addition to extensive content knowledge, students will develop reading, writing, research, and critical thinking skills. IB History of the Americas is the first-year of a two-year course. Students will complete an in-depth study and analysis of the following three topics: 1) The Second World War and the Americas (1933 - 1945) 2) Political developments in the United States (1945-1980) and Canada (1945-1982) and 3) The Americas (1980-2005) This section focuses on changing trends in foreign and domestic policies in the Americas. The study of these three topics will prepare students for the IB external assessment to be taken in May of 12th grade. Students will also be prepared for the Regents exam in U.S. History and Government at the conclusion of this year.

IB1172**Credit 1 Unit****12th Grade****Economics, The Enterprise System, and Finance HS1153**

Grade 12

Credit 1/2 Unit**Final Assessment: School Exam***Prerequisite: United States History & Government or equivalency*

Economics, The Enterprise System, and Finance course offers a comprehensive survey of the basic economic components of the United States economy, the world economic system, and the relationships that these components share. Students will become acquainted with the vocabulary of economics and will explore such topics as personal finance, fiscal and monetary policy, economic indicators, taxation, and the role of the United States in the world economy. Students will be required to take a local exam at the end of the course.

Participation in Government**HS1154**

Grade 12

Credit 1/2 Unit**Final Assessment: School Exam***Prerequisite: United States History & Government or equivalency*

Participation in Government is designed to bring together all of the Social Studies skills needed to become an effective citizen. The course includes a review of the structures of federal, state, and local governments, analysis of rights and liberties through the use of court cases, and the investigation of political beliefs and behaviors using current issues. Students will work to develop their political beliefs and positions on issues. The course emphasizes personal responsibility and individual initiative. Students will be given the opportunity to become involved in their community to witness the links between participation and policy making in real life.

CHS Government & Politics **HS1904**
(College # POL 123)
Grade 12 **Credit 1/2 Unit**
Final Assessment: School Exam

CHS United States Government and Politics introduces students to the institutions, structures, and process of the United States federal government. It examines political theories, the Constitution, federalism, the three branches of government and the federal bureaucracy, political parties and elections, civil liberties and civil rights, the role of the media, interest groups, and social movements, and the interrelationship of economic and political power. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

AP Macroeconomics **HS1156**
Grade 12 **Credit 1 Unit**
Final Assessment: School Exam or Equivalent
Prerequisite: United States History & Government or equivalency

AP Macroeconomics will provide students with a thorough understanding of the principles of economics that apply to the economic system as a whole. Economics is the study of scarcity, the study of how people use resources and respond to incentives, or simply the study of decision-making. Students learn to use graphs, charts, and data to analyze human behavior. Students are prepared to meet the rigor and intensity of college-level course work. The course is based on the syllabus developed by the College Board for Economics AP. Students will focus on the study of national income and price-determination, economic performance measures and growth, the financial sector, economic stabilization policies, and international trade and finance. Students should expect challenging assignments. This course is recommended for all seniors with an interest in the content, and those considering a major in accounting, business, economics, finance, law, public policy, education, the social sciences, the natural sciences, etc. NOTE: Completion of this class fulfills the NYS fourth year social studies requirement for Economics and Participation in Government.

AP United States Government and Politics **HS1164**
Grade 12 **Credit 1 Unit**
Final Assessment: School Exam or Equivalent
Prerequisite: United States History & Government or equivalency

AP United States Government and Politics is a course that 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 in government. It also requires familiarity with various institutions, groups, and beliefs, that constitute the politics of the nation. Topics include constitutional democracy, civil rights and civil liberties, American political culture and beliefs, political participation, and interaction among branches of government. Basic economic concepts and their application will be done in a manner which will allow students to better understand American politics and government. This course is rigorous and designed to be the equivalent of an entry-level political science class. Students should expect nightly readings as well as several written assignments each marking period. NOTE: Completion of this class fulfills the New York State fourth year social studies requirement for Economics and Participation in Government.

IB History of the Americas HL, Year 2 **IB1174**
Grade 12 **Credit 1 Unit**
Final Assessment: IBHL external assessment
Prerequisite: IB History of the Americas Year 1

In the second year of the IB History Programme, students will examine several important turning points from the 20th Century. Students will study one prescribed subject on the “Move to Global War,” and two world history topics on “The Cause and Effects of 20th Century Wars” and “The Cold War: Superpower Tensions and Rivalries.” Throughout the prescribed subject, students will examine two case studies on Japanese Expansion in East Asia from 1931 to 1941, and German and Italian Expansion from 1933 to 1940. Topics covered during the course include the Russo-Japanese War, World War I, World War II, and the rivalry, mistrust, and accord brought on during the Cold War. Students will examine the actions of specific leaders including Truman, Stalin, Mao, Eisenhower, Khrushchev, Castro, JFK, LBJ, Brezhnev, Nixon, Carter, Reagan, and Gorbachev. Students will complete an internal assessment. This assessment is a paper that is an original historical investigation on a topic of the student’s choosing. Throughout the two years of study, students will prepare for an external assessment to be taken in May of their second year. The external assessment is a three part

examination including paper 1 on “The Move to Global War” (20% of IB History grade), paper 2 on “The Causes and Effects of 20th Century Wars” and “The Cold War” (25% of IB History grade), and paper 3 on “The Second World War and the Americas (1933-1945)”, “Political developments in the United States (1945-1982)” and “The Americas (1980-2005)”. (35% of IB History grade.)

Electives

IB Psychology HL Year 1/Year 2 **IB1160 / IB1161**
Grade 11 **Credit 1 Unit**
Final Assessment: IBSL external assessment
Prerequisite: Biology, Global History

IB Psychology HL, a two-year course, examines the study of human behavior and mental processes. It is a complex subject which draws on concepts, methods and understandings from a number of different disciplines. The study of behavior and mental processes requires a multidisciplinary approach, and the use of a variety of research techniques, while recognizing that behavior is not a static phenomenon. IB Psychology HL offers an introduction to three different approaches to understanding behavior: the biological approach, cognitive approach, and the sociocultural approach. Throughout the investigation of these approaches, the course will focus on the concepts, theories, and research that has developed contemporary understanding in these fields. The course places great emphasis on critical evaluation of those concepts, theories, and studies. IB Psychology also examines research and concepts regarding the causes, diagnosis, and treatment of mental disorders. The course requires that students take a challenging written exam at the end of their second year. In addition, IB Psychology HL students must complete an internal assessment that replicates a psychological experiment.

Sociology **HS1162**
Grade 11, 12 **Credit 1/2 Unit**
Final Assessment: School Exam or Project Assessment

Sociology introduces students to the basic patterns of social behavior and the structure and functions of social organizations. Emphasis is placed on research, culture and cultural change, socialization and deviance, population and social stratification, and social institutions.

Social Change: War and Peace - the **HS1167**
Civil War through World War I
Grade 11, 12 **Credit 1/2 Unit**
Final Assessment: Final Project

Students will examine the history of diverse peoples in America including African Americans, Women and Mexican Americans through the lens of war and peace in the United States of America. By examining movements through documents and events of this time period, students will form a greater understanding of how they promoted and affected change in our country. Students will work on a semester long culminating project that will result in a final summative project of their choice due at the end of the semester.

Social Change: Race, Gender, and Sexual Orientation

Grade 11, 12

Final Assessment: Final Project

HS1168

Credit 1/2 Unit

Students will compare and contrast social changes regarding race, gender and/or sexual orientation in both the United States of America and other parts of the world, from World War II to present day. The course will offer a comparative view of these social changes in the USA with other nations that have undergone social changes during this time period. Students will discover both similarities and differences of these topics as they examine primary and secondary sources, write reflective papers and work on a culminating project on a topic of their choice.

CHS Introduction to Psychology

Grade 11 or 12

Final Assessment: School Exam

Prerequisite: Teacher Recommendation. 85 or better in Global History and an 85 or better on the Global History Regents. 85 or better in Honors Biology

HS1155

Credit 1/2 Unit

Psychology is the systematic study of human behavior and mental processes. It is rooted in both the natural and human sciences, and based on empirical research. This course begins with an exploration of the foundational figures and theories in psychology and an introduction into basic research methods in psychology. Students will then examine the biological approach to understanding human behavior, studying basic concepts in behavioral genetics, neurochemistry, structure and function of the brain and evolutionary psychology. Additionally, students will investigate sleep, memory, intelligence and personality theory. The course concludes with an exploration of psychological disorders, with a focus on their prevalence, causes, diagnostic criteria and treatment. This course is designed for students with a strong interest in biology and social science. Students have the option to enroll in the SCCC College in the High School Program (CHS) with Schenectady Community College (SCCC) and students must complete an SCCC application in the beginning of the course and return it promptly to the teacher. Upon receiving a final grade of C or better, students will be awarded 3 credits from SCCC. These credits are accepted at most institutions of higher learning.

IB Psychology SL

Grade 11 or 12

Final Assessment: IBSL external assessment

Prerequisite: Biology, Global History

IB1173

Credit 1 Unit

IB Psychology is the systematic study of human behavior and mental processes. It is rooted both in the natural and human sciences, and based on rigorous, empirical research. This course explores the science of psychology through three approaches: biological, cognitive, and sociocultural. The biological level of analysis explores what all humans share – genetics, anatomy, and neurochemistry – whereas the cognitive and socio-cultural levels of analysis examine the diversity of human behavior and mental processes. Students will also explore abnormal psychology, studying the causes, diagnosis, and treatments of mental illness. Specific attention will be paid to the cultural differences in the diagnosis and treatment of mental illness. This course is designed for students with a strong interest in biology and the social sciences. Students will complete an internal assessment. This assessment will be a rigorous replication of previously conducted research in psychology. Students will also take an external assessment at the end of the course.

Student-Athletes and the NCAA Eligibility Center

If you are a prospective college athlete for competition at the Division I or II level, you must meet academic and amateurism standards set by the National Collegiate Athletic Association (NCAA). The NCAA is an independent organization with no affiliation with the New York State Education Department or any other formal entity as it relates to academics at the secondary level. Each high school in the country must submit courses to the NCAA for approval. It is strongly urged that students who are candidates for collegiate athletics meet with their school counselor on a regular basis to review their transcript and verify which courses will be accepted by the NCAA.

Visit the NCAA Eligibility Center website, www.eligibilitycenter.org, to find the information you need to begin your college experience as a student-athlete. We encourage you to register with NCAA at the beginning of your sophomore year.

In order for core courses on a student's transcript to be used in an academic certification, it must appear on Ballston Spa High School's list of NCAA-approved courses.

Courses that have been approved by the NCAA are:

English

- English 9 Regents
- English 10 Regents
- English 10 Honors
- English 11 Regents
- English 11
- English 12
- AP English 11 Literature & Composition
- AP English 12 Language & Composition
- Best Sellers
- IB Language and Literature HL
- CHS College Composition
- CHS College Literature and Writing
- CHS Public Speaking
- Expressive Writing
- Fantasy & Mythology in Literature
- Mysteries
- Short Stories
- Sports Literature

Social Science

- Global History 9 Regents
- Global History 10 Regents
- United States History & Government Regents
- Economics
- Participation in Government
- AP World History I
- AP World History II
- AP United States History
- AP United States Government & Politics
- CHS American History to 1877
- CHS American History since 1877

- CHS Psychology
- IB History of the Americas HL, Year 1
- IB History of the Americas HL, Year 2
- IB Psychology HL
- IB Psychology SL
- Green Economics & Public Policy
- History of the Holocaust
- Perspectives on War
- Sociology

Mathematics

- Algebra
- Geometry
- Algebra 2
- CHS College Algebra with Trig
- CHS Mathematical Topics
- CHS Pre-Calculus
- AP Calculus AB
- AP Calculus BC
- AP Statistics
- IB Mathematical Studies SL
- IB Mathematics SL

Natural/Physical Science

- Biology Regents
- Biology Honors
- Earth Science Regents
- Chemistry Regents
- Chemistry Honors
- Physics Regents
- AP Biology
- AP Chemistry
- AP Physics 1
- IB Biology HL, Year 1
- IB Biology HL, Year 2

- IB Biology SL
- IB Physics HL, Year 1
- IB Physics HL, Year 2
- PLTW Digital Electronics
- PLTW Principles of Engineering
- PLTW Principles of Biomedical Science
- PLTW Human Body Systems
- PLTW Medical Interventions
- Animals and Plants of the Northeast
- Applied Physics
- Biomedical Research
- Chemistry General
- CHS Astronomy
- Environmental Science and Sustainability
- Forensics
- Nanotechnology

Additional Core Courses

- French – Level 2
- French – Level 3
- UHS French 4
- UHS French 5
- IB French SL, Year 1
- IB French SL, Year 2
- Spanish – Level 1
- Spanish – Level 2
- Spanish – Level 3
- UHS Spanish 4
- UHS Spanish 5
- IB Spanish SL, Year 1
- IB Spanish SL, Year 2