IROQUOIS CENTRAL HIGH SCHOOL
2111 Girdle Road
P.O. Box 32 (Mailing Address)
Elma, New York 14059
(716) 652-3000
Fax (716) 995-2445
www.iroquoiscsd.org

2026 - 27 Course Catalog

Douglas R. Scofield
Superintendent of Schools

Mary Jo Dudek, Ed.D.
Assistant Superintendent for Curriculum

John M. Wolski
Business Administrator

Christian Hershey
Director of Instruction, Student Support Services

Christopher Ginestre, Ed.D.
High School Principal

Alexis Langheier, Ed.D.
Assistant Principal

Douglas Beetow
Assistant Principal

OUR VISION

... Iroquois High School, as a globally aware community, is built on high expectations that encourages a positive environment. This environment inspires students to develop the skills to think critically, creatively and take ownership of their own learning. The opportunities will be provided by teachers, staff and administration through innovative, engaging and rigorous instruction that promotes a culture that is safe, respectful and effective.

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Co-Curricular Clubs/Activities - Please refer to the ICS website www.iroquoiscsd.org for a listing of available clubs and activities.

Sports/Athletics – Questions concerning Athletics may be directed to Iroquois Athletic Director – Mrs. Carrie Vetter at 652-3000 ext. 7200. A current listing of our athletic offerings is available on the Iroquois web site.

High School Student Support Services Staff

(716) 652-3000 Fax (716) 995-2445

High School Counselors

Mrs. Jessica Lewandowski ext 7873
Gr. 9 -12 *A - G
JLewandowski@iroquoiscsd.org

Mrs. Rachel Ford ext 7871
Gr. 9 -12 *H – O
RFord@iroquoiscsd.org

Ms. Jennifer John ext 7870
Gr. 9 - 12 *P – Z
JJohn@iroquoiscsd.org

*alpha assignment may change based on enrollment

Mrs. Maria Olsen
Administrative Assistant ext 7876
MOlsen@iroquoiscsd.org

Mrs. Jackie Zagst
H.S. Registrar ext 7872
JZagst@iroquoiscsd.org

Middle School Counselors- Grades 5-8

(716) 652-3000

Mrs. Mary Langl ext. 6872 **Mrs. Erin Moynihan ext. 6870**
Mrs. Kim Dixon Administrative Assistant ext. 6871

The American School Counselor Association (ASCA) provides the following role statement of the Professional School Counselor:

"*The Professional School Counselor is a certified/licensed educator who addresses the needs of students comprehensively through the implementation of a developmental school counseling program. Their work is differentiated by attention to age-specific developmental stage of student growth and the needs, tasks, and student interests related to those stages. School Counselors work with all students, including those who are considered "at-risk" and those with special needs. They are specialists in human behavior and relationships who provide assistance to students through four primary interventions: counseling (individual and group); large group guidance; consultations; and coordination"*.

The Student Support Services staff provides assistance to students in the areas of individual and group guidance, academic, career, personal/social development and educational planning.

Educational planning is important for all students. The Student Support Services Staff will assist you in planning your high school program. The counselors will work with you to help clarify your goals and plans for the future. This book contains the courses offered for the 2025-26 school year, and includes a short descriptive paragraph giving pertinent information, such as course prerequisites, credit per course, and grade level eligibility, etc.

Please note- Courses listed within this course book may differ from those actually available. For this reason, student schedules may not reflect all courses that they had requested.

The granting of specific course requests is based on:

1. **Enrollment/Space Availability**
2. **Local and State Funding**
3. **Priorities – seniors will have first choice on specific courses**
4. **Graduation requirements**

New York State Assessments Diploma Types - Designations

A. **Advanced Regents Diploma**
   Students who score 65 or above on nine-(9) **required** Regents examinations shall be eligible for an Advanced Regents Diploma.
B. **Advanced Regents Diploma with Honors**
   A cumulative average of 90 or above on eight – (8) **required** Regents examinations.
C. **Advanced Regents Diploma with Mastery in Math**
   A score of 85 or above on each of the three- (3) Math Regents exams.
D. **Advanced Regents Diploma with Mastery in Science**
   A score of 85 or above on each of the three- (3) Science Regents exams.
E. **Regents Diploma**
   A score of 65 or above on five- (5) required Regents examinations.
F. **Regents with Honors Diploma**
   A cumulative average of 90 or above on the five- (5) required Regents exams.
G. **New York State Seal of Biliteracy**
   Students who continue their studies through Level 5 French or Level 5 Spanish and have attained a high level of proficiency in listening, speaking, reading and writing in one or more languages, in addition to English.
H. **New York State Seal of Civic Readiness**
   Students who have attained a high level of proficiency in terms of civic knowledge, civic skills, civic mindset, and civic experiences. This distinction shows the student's understanding of a commitment to participatory government, civic responsibility and civic values.
I. **Local Diploma/Students with Disabilities**
   A local diploma is available to students based on their Individualized Educational Plan. See a counselor for specific details.
J. **Pathway Options for Students with Disabilities**
   In consultation with your School Counselor.

Refer to graduation chart on page 4 for exam and graduation requirements.

Community Service

"The Iroquois School District endorses Community Service Projects as a requirement for graduation. The benefits of a community Service Project include providing an opportunity for students to develop a wide range of personal, intellectual, academic, and social skills such as teamwork, problem-solving, negotiations, communication, planning and evaluation. The focus should be to help students become effective employees, colleagues, citizens, and leaders". *(Adapted by the Iroquois BOE 2006)*

Students in the Class of 2027, 2028, 2029 and 2030 are required to complete a minimum of 32 hours of Community Service. It is recommended that students complete a minimum of 8 hours of service per year. Specific details of the requirement, volunteer opportunities, and verification forms are available on the high school web page under Student Support Services at **www.iroquoiscsd.org**

NCAA Freshmen Eligibility Standards

Student athletes wishing to play sports in college at the Division I or II levels must register with NCAA Eligibility Center at the end of their junior year. At that point, students should see their counselor to have a transcript uploaded to NCAA. Information regarding NCAA eligibility can be found at www.eligibilitycenter.org. Contact the NCAA at (877) 262-1492.

Academic Standards

The NCAA Eligibility Center verifies the academic and amateur status of all student-athletes who wish to compete in Division I or II athletics. Please work with your prospective college and the NCAA Eligibility Center to make sure that all of the academic eligibility standards will be met.

College-bound student-athletes who want to practice, compete and receive athletically related financial aid during their first year at a Division I or II school need to meet the following requirements:

- Graduate from high school.
- Complete a minimum of 16 core courses for Division I or 16 core courses for Division II.
- Earn the minimum required grade-point average in core courses.
- Request final amateurism certification from the NCAA Eligibility Center.

Academic requirements for Division I and II athletics are updated by the NCAA frequently. For the most up-to-date information and minimum academic standards, please visit www.eligibilitycenter.org.

- When you register for the SAT or ACT, use the NCAA Eligibility Center code of **9999** to ensure your official scores are sent directly to the NCAA, per their requirement. They do not accept SAT or ACT scores, as official, on your transcript. (Test scores are optional)
- Division III college and universities set their own admissions standards. The NCAA does not set initial eligibility requirements for Division III.

Please notify your school counselor as soon as possible if your intentions include Div I or Div II athletics to insure that your coursework will meet NCAA guidelines. It is the student's responsibility to ensure that their coursework meets the eligibility guidelines.

Refer to the NCAA Link on the Student Support Services web page for further NCAA information.

GRADUATION REQUIREMENTS

CLASS OF 2027, 2028, 2029 and 2030

Graduation Class is determined by when the student enters 9th grade.

(Subject to change based on New York State Board of Regents Approval)***

Regents/Local Diplomas		**Advanced Designation Regents Diploma**	
Required Courses		**Required Courses**	
English	4	English	4
Social Studies	4	Social Studies	4
Math	3	Math	3
Science	3	Regents Level Science	3
World Languages	1 (b1)	World Languages	3 (b1, b2)
Art/Music	1	Art/Music	1
Health	.5	Health	.5
Physical Education	2	Physical Education	2
Electives	3.5	Electives	1.5
Total (refer to d)	22.0	**Total *(refer to d)***	22.0

Local Diploma	**Regents Diploma**	**Adv. Designation Regents Diploma**
a-Refer to notation below	**Required Exams***** (Passing score of 65 and above)	**Required Exams***** (Passing score of 65 and above)
	English Language Arts	English Language Arts Exam
***Low pass 55-64 pass Option	Algebra 1	Algebra 1, Geometry and Algebra 2
	Regents Global Studies	Regents Global Studies Exam
	Regents U.S. History	Regents U.S. History Exam
	Regents Science	Two Regents Science Exams ©
		Locally Developed World Language Exam (b1, b2)

8. Alternative assessment formats and/or variances from Regents examinations may be utilized for students in accordance with the Commissioner's Regulations and State Education Department guidelines based on grade 9 entry date. The local diploma option remains available to students based on their Individualized Educational Plan. See your school counselor for specific details.

b.(1) Students are required to have completed one unit of credit in a world language by the end of their freshmen year. Students **must take and pass a locally developed exam AND pass the course.** This accelerated model provides the 2 units of seat time required by NYS.
b.(2) Students pursuing the **Regents Diploma with Advanced Designation** may select a 5 Unit sequence in occupational (career and technical) education, art or music **in lieu of** the 3 unit sequence plus exam in a LOTE. However, these students are still required to fulfill 1 unit of high school LOTE credit for graduation.

© NYS Science requirement for a Regents Diploma with an advanced designation; Pass two Regents exams- (1) Living, (1) Physical
d. All students are required to fulfill a **Community Service** component for graduation. *(Subject to the guidelines established by the Iroquois BOE). Transfer students required hours will be pro-rated based on grade level at time of entry.*

****There are new SED regulations regarding potential new options for students to meet NYS graduation requirements.*
Please see your School Counselor for further updates regarding new graduation options and pathways for students.

EARLY GRADUATION REQUIREMENTS

- Meet with counselor to discuss intentions
- Request in writing intention to Board of Education (parent letter, student letter)
- Meet all deadline dates and fulfill graduation requirements
- Fulfill all graduation requirements
- Retraction of intention to Board of Education (consult with your Counselor)

A student shall be eligible for early graduation in fewer than eight semesters upon completion of all requirements for graduation, excluding physical education, as mandated by the Commissioner's Regulations. A student shall not be required to continue enrollment for the sole purpose of completing physical education requirements. The District, upon request from the student's parent/guardian, may choose to grant the student a high school diploma prior to his/her completion of the eighth semester.

8 New York Code of Rules and Regulations (NYCRR) Section 100.5(3)

SUBJECT LOAD

The Iroquois Board of Education requires every student to take a minimum of **five credits plus physical education** in his/her program each year. This requirement may be adjusted accordingly for January graduates.

GRADE LEVEL PROMOTION EXPECTATIONS

Promotion to 10th Grade: Completion of 5.0 units
Promotion to 11th Grade: Completion of 10.0 units
Promotion to 12th Grade: Completion of 15.5 units & the ability to meet all graduation requirements by June of the school year

REGENTS RETAKE EXAM GUIDELINES

Effective August 2018 – Only the highest Regents Exam Score will be reported on the transcript.

ADDING/DROPPING COURSES *(with Administrative Approval)*

After July 1st students will not be able to modify their course selection choices. Exceptions to this policy would be for a valid educational reason only. Proposed changes must be reviewed by the student's counselor and approved by an administrator. Please contact your counselor if you have any questions about this process or concerns about his/her choices.

If approval to drop a course is granted, a grade of 50 will be issued to students dropping a 20-week course after the 3rd week and a 40-week course after the 11th week. At the teacher's discretion, a grade lower than 50 may be given. A student will not be allowed to drop a 20-week course after the 11th week or a 40-week course after the 21st week. A student who drops a 40-week course after the 3rd week but prior to the 11th week will receive a "drop". Students will not be eligible to enroll in a new course and will be scheduled into a study hall. Students wishing to add a course must do so within ten days of the start of the semester. Students will not normally be enrolled into a semester course (20-week course) after the third week of the semester has elapsed. Any exceptions must have administrative approval. Students will not normally be enrolled in a full-year course after the first 10 week marking period has elapsed. Any exceptions must have administrative approval. Transfer students from other schools are naturally exceptions to this policy. Students may not change course levels or drop a 40-week course after the 22nd week of classes.

Revised February 4, 2011

GRADE REPORTING

REPORT CARDS/PROGRESS REPORTS

Grades are updated numerically on parent and student portals during the school year. A mark below 65 in a subject area is a failing grade. Progress reports will be available on the student and parent portals at the end of the 5th, 15th, 25th & 35th week of school. Report Cards are available on the portals at the end of the 10th, 20th, 30th & 40th week of school. These reports help to alert parents and students of potential academic problems. Any time there is a question; parents are encouraged to contact the teacher by phone or e-mail. Teacher e-mail addresses can be located on the web at www.iroquoiscsd.org and are listed by teacher's last name.

INCOMPLETE GRADES

Incomplete grades may be issued based on medical documentation or at the discretion of an administrator. An incomplete grade must be made up in the five-week period immediately following the day of issuance of report cards. At the end of **five weeks**, any remaining incomplete grades will be converted to a 50. Incomplete grades will be included on the five-week failure list which is distributed to all teachers, coaches, and club advisors for the purpose of monitoring student eligibility.

HIS SEMINAR

This course is designed to help ninth-grade students successfully transition into high school. The course focuses on academic skills, personal development, time management, goal setting, digital citizenship, social-emotional learning, and academic exploration. Students will engage in reflective writing, discussions, collaborative projects, and interactive activities that promote responsibility, resilience, and self-awareness. Grading is a P or F and is worth .25 credit points.

STUDENTS REPEATING COURSES

Students who fail courses are encouraged to attend summer academy to make up the credit. If summer academy is not an option for the student and their family, the District practice is:

Students who fail a 40-week course may repeat the same course at the same level the following year; at the end of 20 weeks, the student is eligible to take the final assessment only if his/her class average is 65 or better.

- The final assessment tests the student on 40-week course work.
- The student must pass the final assessment with a minimum grade of 65, and have an overall average of at least 65 if he/she is to receive credit for the course and be rescheduled.
- If the student fails the assessment, they will continue in the course for the remaining 20 weeks and retake a final exam in June.

SUMMER ACADEMY GRADING POLICY

The New York State Education Department Summer School Policy states that a minimum grade in a specific course may be a prerequisite for admission to a summer school course because a summer "make-up" course is offered for less than 90 hours/credit, and carries only partial credit. Grades from both the short summer and the full-length regular school year courses **must be combined** to determine the final grade and whether to award credit. A student who enrolled in a regular school year course but did very poor or no work, may be required to take the entire course over again. Students who were ineligible to take a Regents exam in June due to failing to meet the lab requirement are not eligible for summer school.

WEIGHTING POLICY

When computing ranks in class, Advanced Placement courses are weighted at 1.05 and are the only weighted courses. All courses in which numerical grades are given are included whether they are passed or failed. Please refer to page 8 and 23 for more information. All students who expect to graduate, regardless of program are included in the ranking. Ranking is typically run early in September after summer academy grades have been entered and again early in February after the completion of 1st semester. The Valedictorian and Salutatorian are determined at 30 weeks, and the final ranking is run at the end of the school year.

CALCULATING GRADE POINT AVERAGE

1. All courses passed and failed are used in the calculation of the weighted quarterly average.

2. Multiply the grade received for each course by the credit the course carries.

3. When computing GPA, Advanced Placement courses are weighted at 1.05 and are the ONLY weighted courses (i.e. grade 90 x 1.05 = 94.5 is used in calculating GPA).

4. Divide the sum of the calculations from steps 2 and 3 by the total credits attempted, including those failed.

Example of GPA Calculation:

English 10	1	x	80	80
AP World History (factor x 1.05)	1	x	90	94.5
Living Environment	1	x	85	85
Geometry	1	x	80	80
Spanish 3	1	x	80	80
Studio Art	1	x	80	80
PE	.25	x	90	22.5
	6.25			522

522 divided by 6.25 = 83.52 weighted GPA

If a course is failed and then repeated, the higher grade is used in calculating an average. The failed grade remains on the transcript, but is not used in the calculation. Only courses that have earned credit are used in the calculation of GPA.

NATIONAL HONOR SOCIETY ELIGIBILITY

Please refer to www.iroquoiscsd.org for detailed information regarding NHS selection process.

Prerequisite Conditions for Selection

- Only those juniors and seniors who have attended Iroquois the equivalent of one semester may be considered for membership.
- Eligibility consideration is open to juniors and seniors.
- Academic requirements are the same for all candidates in all classes.
- There is no specific quota or percentage of members per class.
- Students who provide proof of NHS membership in another school are automatically inducted.

Selection Criteria:

- The Faculty Council of the chapter selects students who demonstrate outstanding performance **in all four criteria** of NHS- scholarship, leadership, service and character.
- Past disciplinary infractions, such as referrals, detentions and suspensions will be taken into consideration by the Selection Committee.
- Junior and Senior students who have a minimum cumulative GPA of 94 are eligible for consideration.
- Only community service hours that have been submitted, verified and documented by ICS are considered.
- It is recommended that those students who are academically eligible have at least the minimum of 32 hours of community service (graduation requirement).
- Applications are mailed late August to students that meet the eligibility criteria.
- Eligible students submit requested paperwork and documentation in September.
- Induction Ceremony is typically mid-November.
- Members commit to participating in 24 hours of an Individual Service Project that they choose and is approved by the club advisors (12 of which must be completed by the end of 1st semester) and NHS sponsored community service/activities each year of NHS membership. Members not in good standing due to lack of ISP service hours or attendance concerns will be notified in writing. Seniors not in good standing at the end of 1st semester will not be eligible to order a blue graduation robe.
- Dues: Members are responsible for paying $15 dues per year.

Advanced Placement Program

The **AP Program** offers exams in a variety of subject areas for students with a strong curiosity about the subjects studied and the willingness to work hard. Here are just a few reasons to sign up for AP courses:

- **Gain the edge in college preparation.** Get a head start on exactly the sort of work you will confront in college. Improve your writing skills and sharpen your problem-solving techniques. Develop the study habits necessary for tackling rigorous course work.
- **Stand out in the college admissions process.** Demonstrate your maturity and readiness for college. Show your willingness to push yourself to the limit. Emphasize your commitment to academic excellence.
- **Broaden your intellectual horizons.** Explore the world from a variety of perspectives, most importantly your own. Study subjects in greater depth and detail.

AP courses are the equivalent of a COLLEGE COURSE taught by a college professor. Textbooks used are designed for college and university students. AP exams are administered in May as part of the College Board's testing program. Students who score well enough on AP exams may receive college credit for the course.

Students participating in the AP program are required to pay the examination fee, and it is our District's policy that all students that are enrolled in an AP course sit for the examination in May. The fee for **each** AP exam taken in 2026 - 27 will be **$99.00*** (*subject to College Board Fee Schedule)

A **non-refundable** full payment per exam will be due early February. Students challenging or retaking additional AP exams, should notify the AP coordinator, by November 14th. A fee reduction is available for students meeting financial need guidelines. Any registration changes after November 14th will incur a $40 change fee. If you have any questions concerning the AP courses or policy, please feel free to call your student's school counselor or the principal.

Please note: In order to **not** forward AP scores to colleges, via transcript, a **Do Not Release Form** is required with signatures of the student and their legal guardian, which must be on file in Student Support Services.

For more information on the AP Program, visit www.collegeboard.org/apstudents

Information from High School AP teachers:

- AP courses require a commitment of time and effort on the part of each student that is significantly greater than what is expected in Regents courses.
- AP courses move at a much faster pace than Regents courses. One, two or possibly three chapters of the textbook may be covered in one week.
- AP course content requirements are much more detailed than Regents course requirements.
- AP teachers may not cover all material during class time. Students will be expected to learn independently through textbook readings, other supplemental materials, research projects or labs.
- AP courses may require the completion of assignments over the summer.
- In AP courses, a student's quarterly average is given an additional weighting factor of 1.05 to compensate for the significantly more rigorous curriculum.

AP class offerings may be limited due to District funding and enrollment.

Non-payment of AP fees may jeopardize students' opportunity to participate in commencement exercises.
Late fees will be incurred for late payments.

AP COURSES OFFERED AT IROQUOIS

AP Art and Design
AP Biology
AP Calculus (AB)
AP Chemistry
AP Computer Science A
AP Computer Science Principles
AP English Language & Composition
AP English Literature & Composition
AP Environmental Science
AP European History
AP Macroeconomics
AP Physics(C) - Electricity
AP Physics(C) - Mechanics
AP Psychology
AP Statistics
AP US Government & Politics
AP US History
AP World History

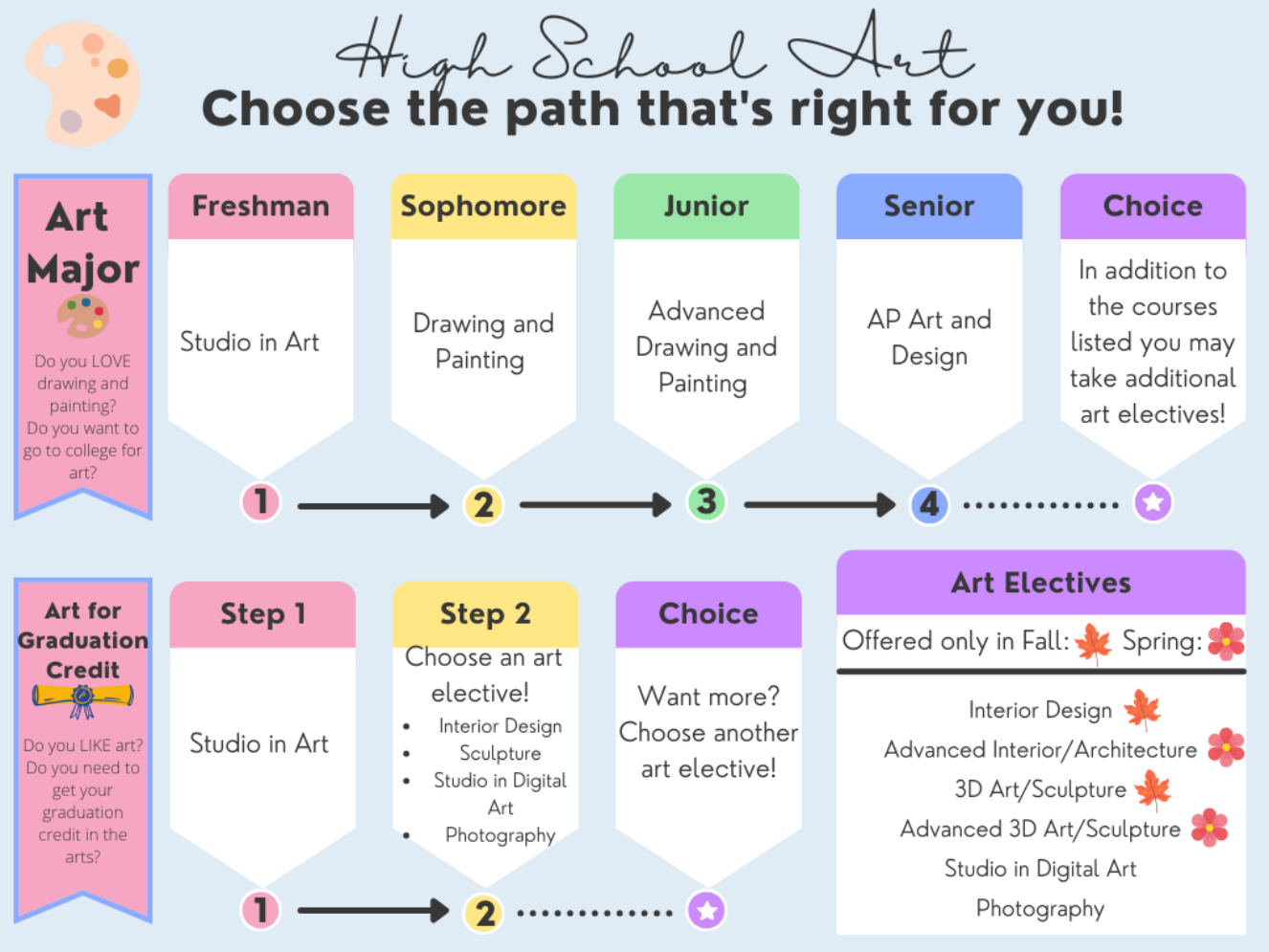
2026 – 27 Courses with College Articulation Agreements

College Articulation Agreements/Dual Enrollment allow high school students to enroll in college credit courses from Syracuse University, Niagara University, Hilbert College and SUNY Erie. Approved courses are taught by Iroquois High School faculty members and are equivalent to those offered at the college. Tuition will be charged at a reduced rate and is due at the beginning of the semester. Students must enroll, pay and be successful in order to receive an official transcript from the agreed college/university indicating credit earned with GPA, which can be transferred to other colleges.

Subject	Course	Course #	Credits	College	Grades
Art	Studio in Digital Art	9068	3	SUNY Erie	10,11,12
Business	Accounting	9001	3	SUNY Erie	9,10,11,12
	Entrepreneurship	9005	3	SUNY Erie	9,10,11,12
	Car & Financial Mgmt 2	9028	3	SUNY Erie	9,10,11,12
	Personal Law	9020	3	SUNY Erie	9,10,11,12
	College Success Skills	9027	3	SUNY Erie	12-Fall
	Intro to Business/Careers	9010	3	SUNY Erie	9,10,11,12
	Intro to Marketing	9013	3	SUNY Erie	9,10,11,12
	Sports & Entertainment Mrkt	9014	3	SUNY Erie	9,10,11,12
World Languages	French V	5507	3	Hilbert	12
	Spanish V	5527	3	Hilbert	12
English	College Writing	1149	3	Hilbert	12
	AP Literature & Composition	1155	3	Hilbert	12
	Must take College Writing	and/or	AP Lang	& Comp	
Mathematics	AP Statistics	3440	3	Hilbert	11,12
	Pre-Calculus	3433	4	SUNY Erie	11,12
	Calculus 1 (AP Calculus AB)	3448	4	Syracuse	12
Science	NUSTEP Forensics	4324	3	Niagara U	11,12
	NUSTEP Public Health/Epid	4330	3	Niagara U	10,11,12
	Human Anat & Physiology A	4322		Hilbert	11,12
	Human Anat & Physiology B	4325	4	must take both	
Technology	NUSTEP Dig Media Prod A	9081		Niagara U	11,12
	NUSTEP Dig Media Prod B	9082	3	must take both	

ART PROGRAM

(No Art classes are NCAA approved)



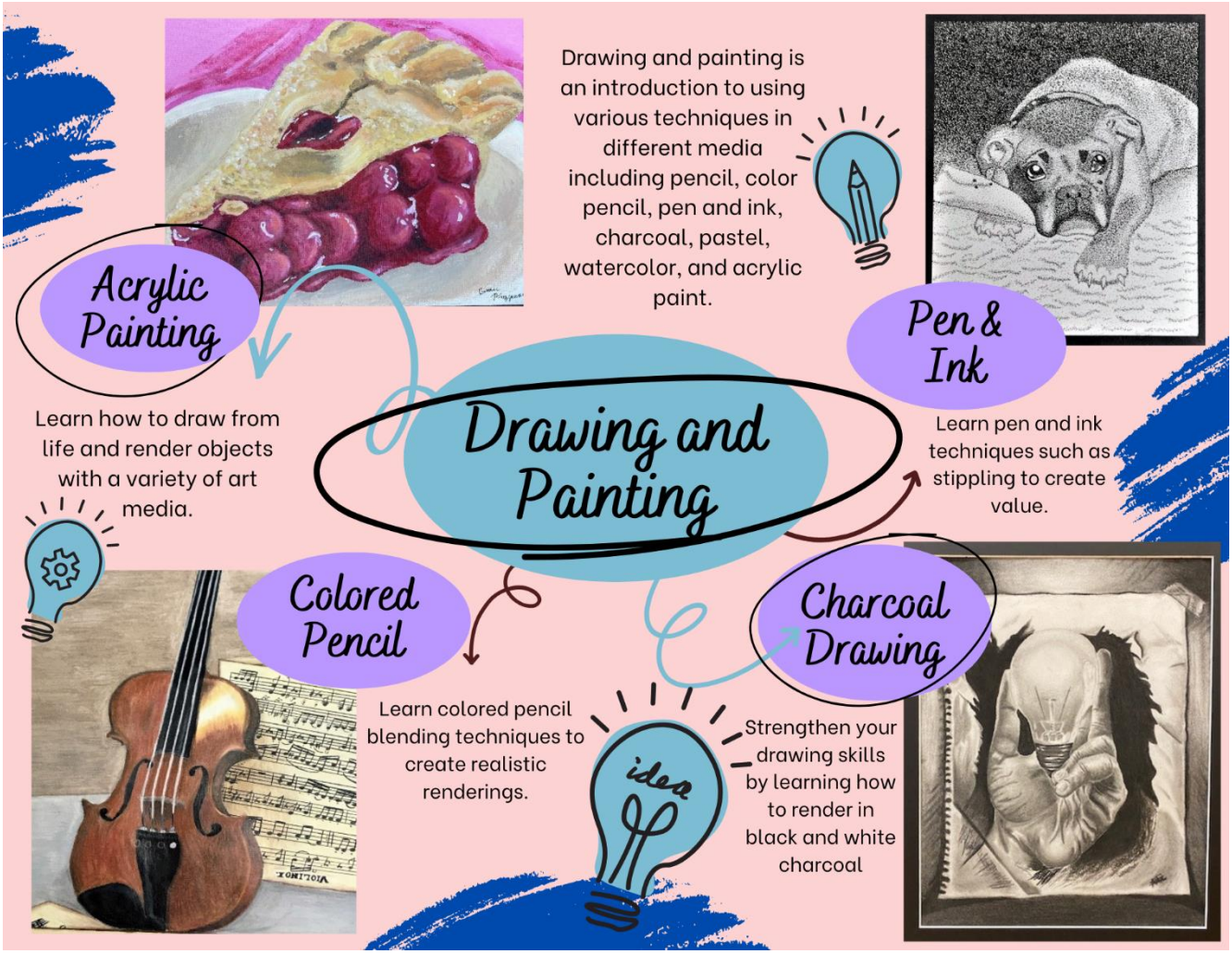
STUDIO IN ART (9061) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit (*currently not approved NCAA course*) *Introductory Level*

This introductory studio course will prepare students for further study in art courses. Students will be introduced to skills and media that will be utilized in other art electives, including: Drawing, painting, ceramics (3-D) and computer art. Students will gain a strong foundation in the elements of art and principles of design, color theory, the artistic process and keeping a sketchbook/journal. *This course is required for an Art Sequence for graduation.

DRAWING AND PAINTING (9064) *Open to Grades 10, 11, 12*
40 weeks – 1 credit *(currently not approved NCAA course)* *Intermediate Level*

Prerequisite: Studio in Art

Drawing and painting is an introduction to learning various techniques using pencil, colored pencil, pen and ink, charcoal, pastel, watercolors and acrylics. This course offers a variety of drawing and painting experiences in landscape, still life, portraiture, and object rendering. You will learn about the style and technique of various contemporary artists and apply this knowledge to your own artwork as you create beautiful fine art drawings and paintings.



ADVANCED ART 1 (9065) *Open to Grades 11,12*
20 weeks – 1/2 credit (*currently not approved NCAA course*) *Teacher Recommendation*
Advanced Level

Prerequisite: Drawing and Painting

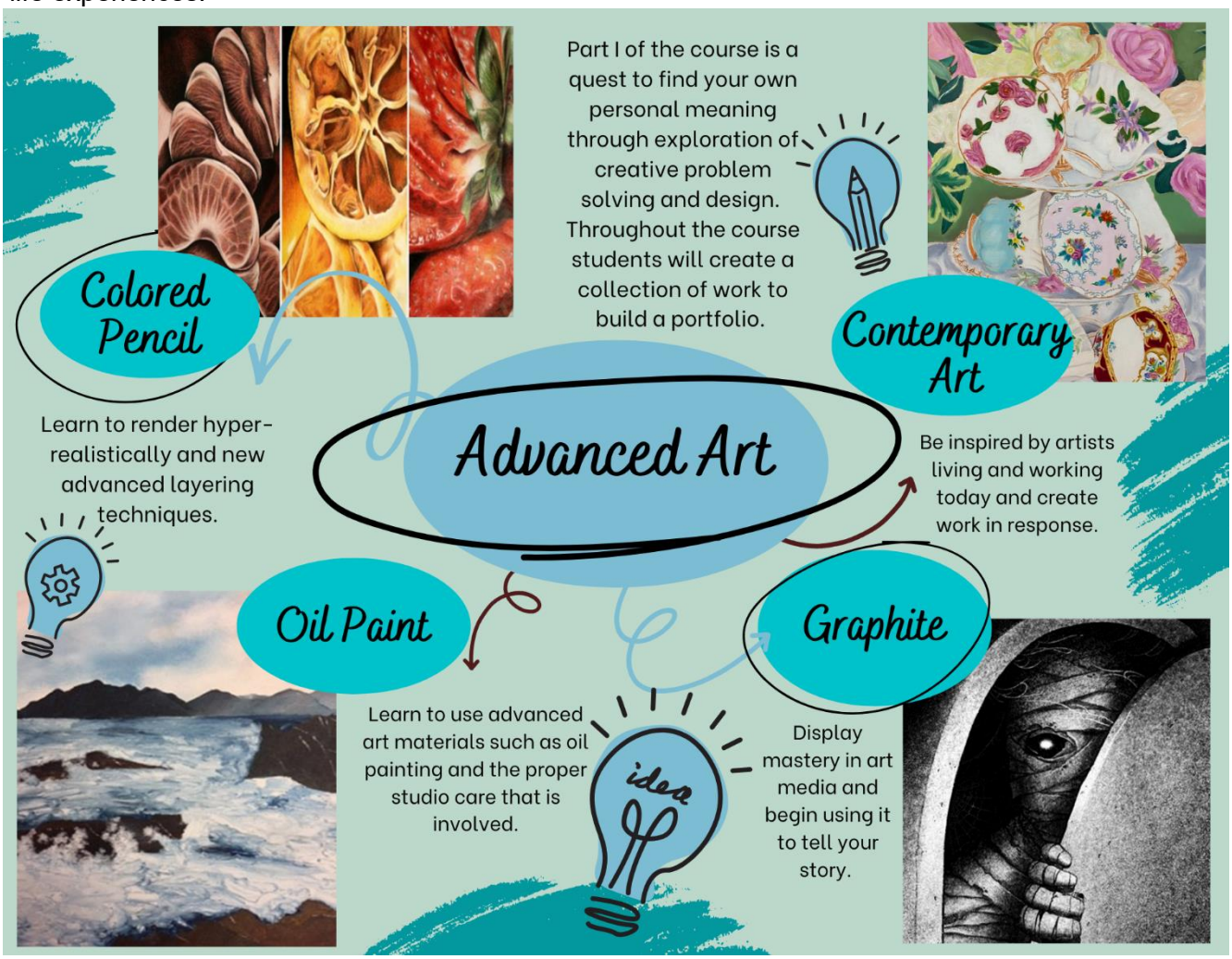
This course is designed as an adventure to find the meaning within the artwork through making connections. Emphasis will be placed on creating from personal experiences and from life. The students will be introduced to new styles and new art techniques. Also, the student will discover innovative ways of interpreting subject matter into creative and expressive art.

Part I of this course is a quest to find the meaning within the artwork through the exploration of creative problem solving and design. Making connections through the elements and principles of design in the composition of work is where your ideas will be discovered!

ADVANCED ART 2 (9066) *Open to Grades 11, 12*
20 weeks - 1/2 credit (*currently not approved NCAA course*) *Advanced Level*

Prerequisite: Advanced Art 1/Portfolio

This course's objectives are the same as Advanced 1. However, the course will cover different "hands-on" projects. Part 2 is an adventure to find the meaning within the artwork by focusing on the cultural or personal expression. The student will brainstorm ideas, creative problem solve and explore how to create art where connections are based on the artist's thoughts, feelings, values, and personal life experiences.



INTRODUCTION TO INTERIOR DESIGN (9067) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not approved NCAA course)* *Intermediate Level*

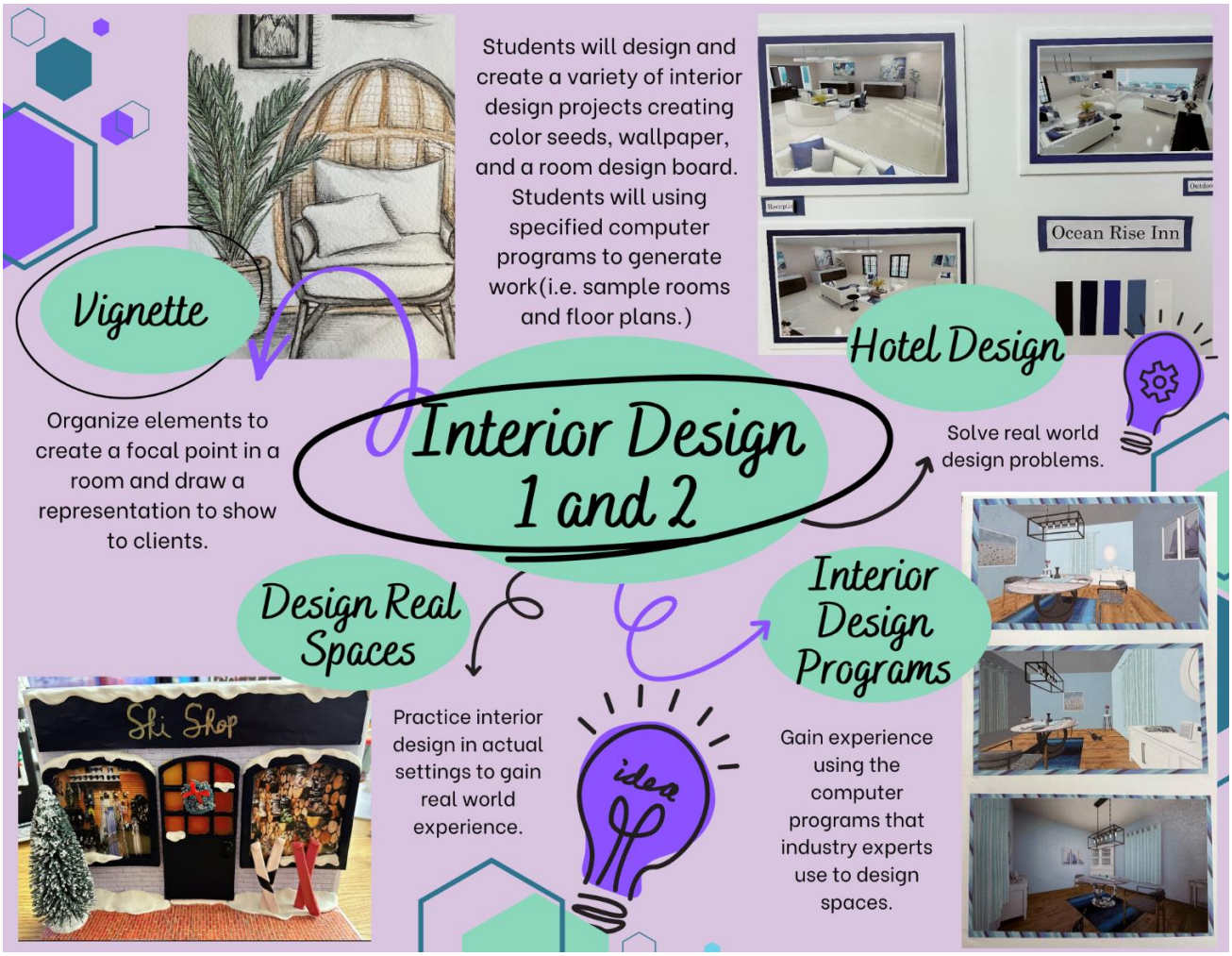
Prerequisite: Studio in Art

Through this course, students will gain an understanding of the elements and principles of design and utilize them to create elaborate living spaces. Students will design and create various room and design examples through learning about the historical foundations of interior design. They will learn to analyze a client's needs and develop comprehensive plans which include many design details (i.e., colors, fabrics, furniture, lighting, budgeting). Students will develop skills in 2-D architectural rendering and space planning as they prepare sample rooms and floor plans. Students will develop their own design boards which they may connect to technology and blogs. They will also have exposure to various career opportunities/events in interior design.

ADVANCED INTERIOR DESIGN/ARCHITECTURE (9079) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not approved NCAA course)* *Advanced Level*

Prerequisite: Introduction to Interior Design

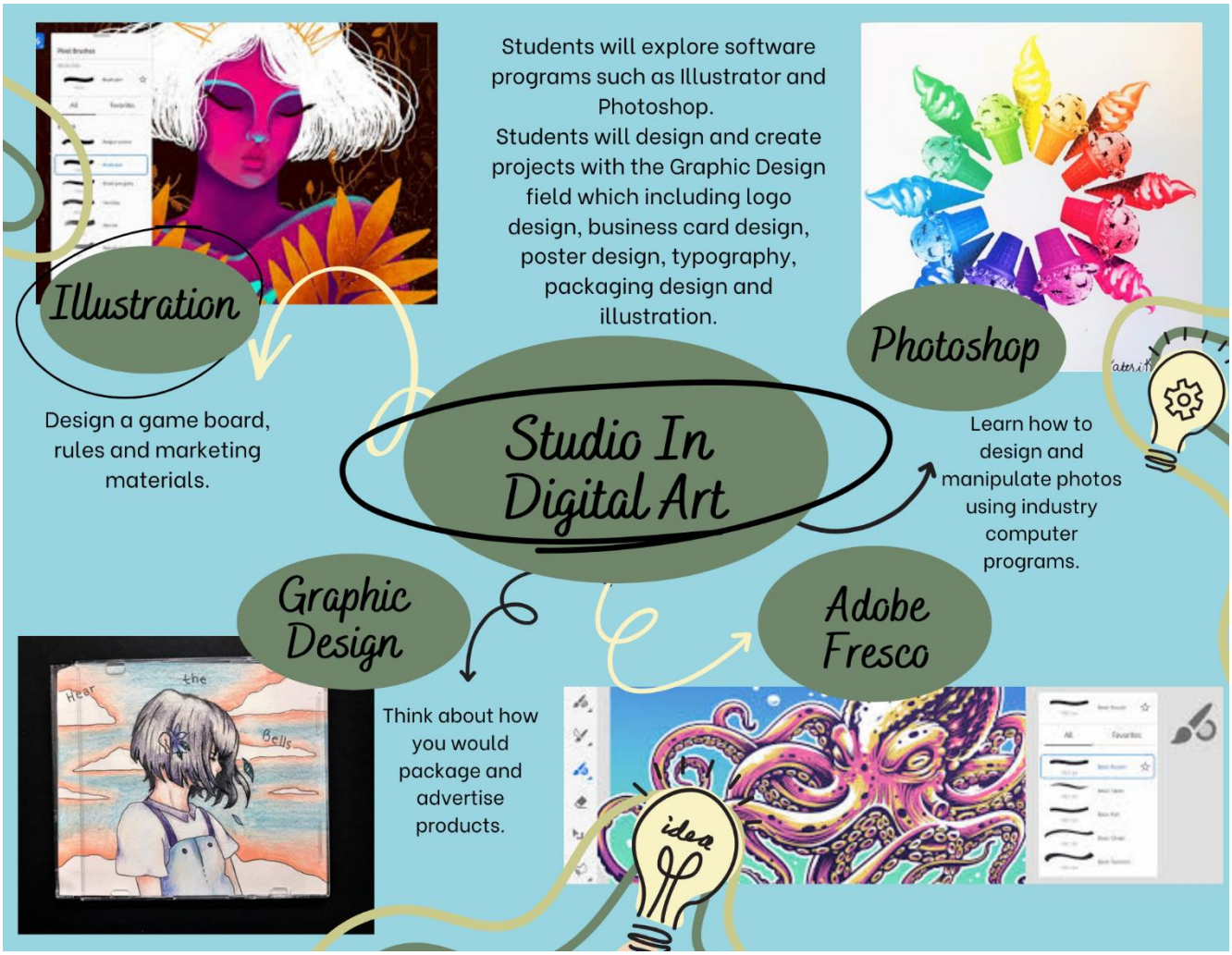
This course is designed to provide the student who would like to move on with a greater understanding and hands on experience in the connection of interior decorating/design to the foundations found in architecture. The text used: *History of Interior Design,* classroom lecture, hands on projects (hand and technical), as well as presenters (interior designers), and field study will provide the students with this essential background that is necessary to use as a springboard for college classes. The course will examine the foundations and the necessary importance of how architecture has been a critical influence on interior design.



STUDIO IN DIGITAL ART (9068) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not approved NCAA course)* *Intermediate Level*

Prerequisite: Studio in Art
College credit through SUNY Erie- AT 263

This course will explore the methods artists can use to create artwork digitally. Using digital software, the student will be able to simulate all the major artistic media used on a two-dimensional surface. While this course is not meant to replace those traditional art forms, it allows the student to experiment and create with digital media and apply these contemporary tools artistically. Students will be introduced to Adobe Photoshop, Adobe Illustrator and Adobe Fresco to draw and paint using pressure sensitive tablets. Through the exploration of contemporary artists and learning about careers in the field, students will create original works of art and gain proficiency in digital media



3D ART & DESIGN/SCULPTURE (9063) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*) *Intermediate Level*

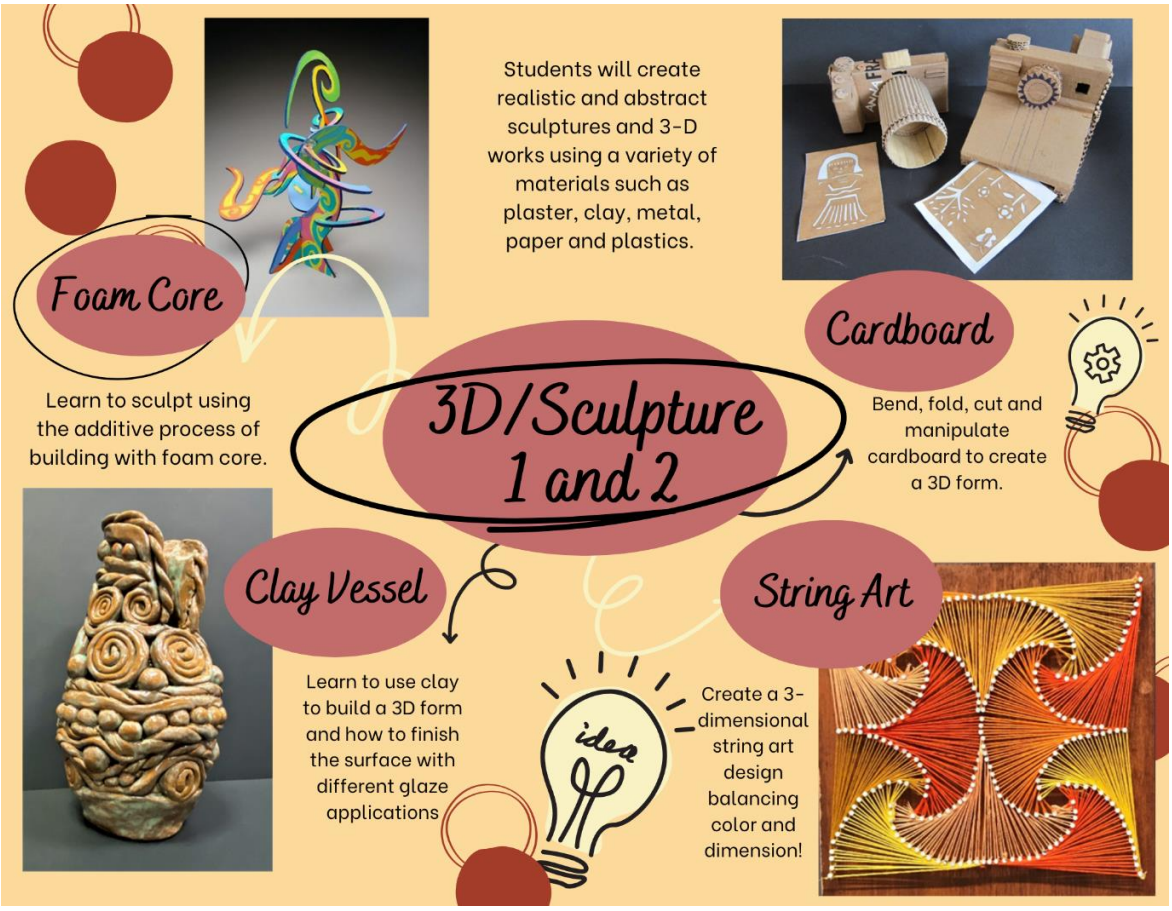
Prerequisite: Studio in Art

This is a course based on the NYS Academic Standards for Visual Art. Students in sculpture engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Using materials such as plaster, clay, metal, paper, wax and plastic, students create quality works. They create realistic and abstract sculptures utilizing subtractive and additive processes of carving, modeling, construction and assembling. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries and studios, and identify art-related careers.

ADVANCED 3D ART & DESIGN/SCULPTURE (9080) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*) *Advanced Level*

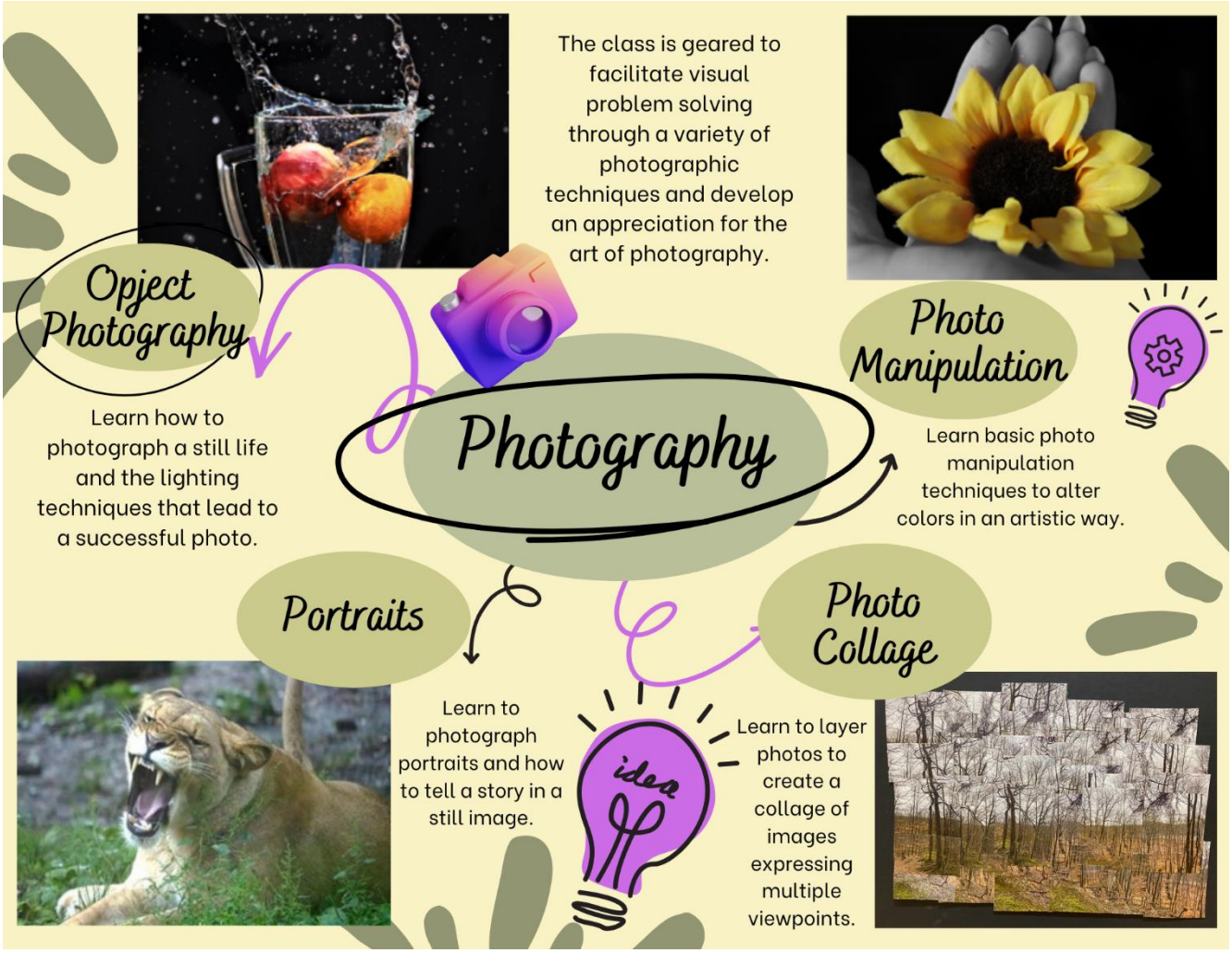
Prerequisite: Studio in Art and 3D Art & Design/Sculpture credits earned

This course is designed to provide the student who would like to move on with a greater understanding and hands-on experience. The course will be an in-depth intensive study of 3-D art while practicing and mastering techniques and concepts. Students will take skills learned from course 1 (3-D Art and Sculpture) and apply them to a higher skill level. The first half of the term will focus on learning, demonstrating, and understanding advanced skills in Sculpture and 3-D Art. The second half of the term will focus on a cohesive body of work that demonstrates knowledge of art skills in 3-D Media with more personal expression and choice of materials.



DIGITAL PHOTOGRAPHY (9072) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)

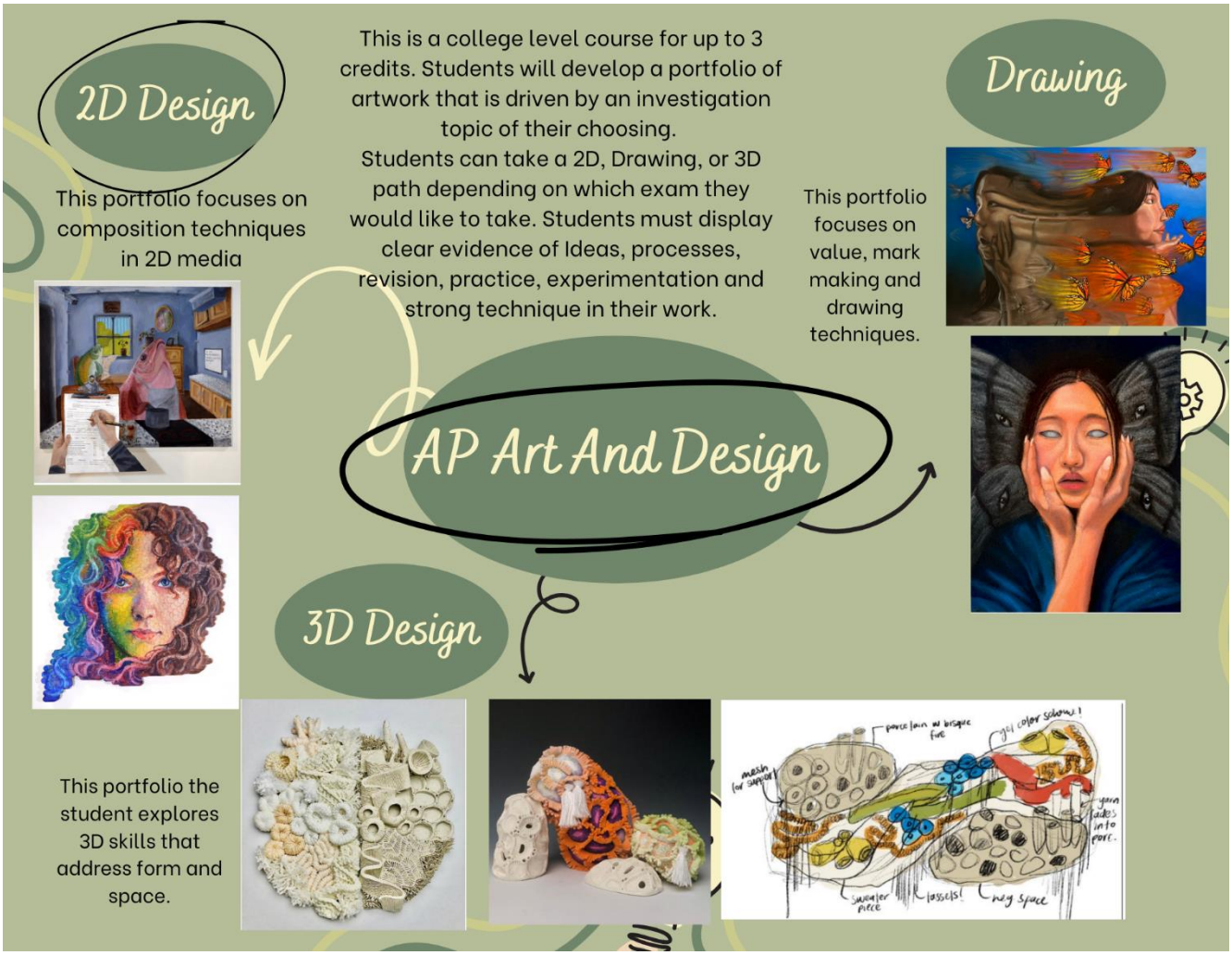
This course introduces students to an in-depth study of the concepts and techniques of Digital Photography. Using Adobe Photoshop as the core program, students will demonstrate the basics of digital imaging. Students are required to create a digital portfolio incorporating their own digital photographs, as well as manipulated images created in class. A digital camera is required.



ADVANCED PLACEMENT ART AND DESIGN (9074) *Open to Grades 11,12*
40 weeks - 1 credit (*currently not approved NCAA course*) *AP Submission*

Prerequisite- Advanced Drawing and Painting, Teacher Recommendation/Approval

The AP Art and Design Program includes three different portfolio options: AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing. You will select the portfolio that most aligns with your art style and the art career you would like to pursue. In this course, you'll investigate materials, processes, and ideas. You will make works of art and design by practicing, experimenting, and revising, and you will communicate your ideas about art and design through written and visual expression. Your reflections and documentation of your artistic process are equally as important as the finished artwork you create. Your goal for the course is to create a portfolio of college-level work and submit it for evaluation. **<u>All students are required to register and pay for the AP Portfolio.</u>**



BUSINESS COURSES

ACCOUNTING (9001) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit (*currently not approved NCAA course*)
College credit through SUNY Erie

This is a full-year course designed to develop occupation skills in Accounting. This course is also strongly recommended for any student who is seeking a business/management post-secondary degree or who may want to own their own business. The course content encompasses the complete accounting cycle and provides opportunities for incorporation of computer utilization into the instruction. Students will complete two separate business simulations as well as use of QuickBooks accounting software.
This course may be used to fulfill the 3rd unit of the math requirement.

ADVANCED ACCOUNTING (9002) *Open to Grades 10, 11, 12*
40 weeks - 1 credit (*currently not approved NCAA course*)

Prerequisite: Accounting

This course is an extension of the Accounting 1 course. The introduction of additional topics involving more complex accounting applications significantly extends the basic accounting concepts and skills.

BUSINESS MATHEMATICS (9003) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit (*currently not approved NCAA course*)

Topics covered provide a broad introduction to the business content and terminology that will be studied in greater detail in advanced business classes. Some of the topics are: Basic Mathematics; The Paycheck (overtime pay, fringe benefits); Money Records (checkbook, bank statements); Home Expenses (your first apartment); Transportation (car insurance); Borrowing Money (college); Budgeting and Buying; Owning a Small Business.

CAREER AND FINANCIAL MANAGEMENT 1 (9026) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)

This course will allow students to explore a variety of careers, learn the skills and competencies needed for success in the workplace, as well as developing life-long economic goals. Students will also gain an understanding of, and develop the skills and knowledge needed to be successful in a rapidly changing financial world. Topics include career exploration, employability skills, interviewing, presentation skills, college major exploration, networking and job market exploration.

CAREER AND FINANCIAL MANAGEMENT 2 (9028) *Open to Grades 9, 10,11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)
College credit with SUNY Erie- BU 233 for grades 10-12

This course is designed to help the student better understand the financial world in which they live today. Topics will enhance one's ability to make personal financial decisions which will include establishing an individual's financial goals, making decisions on saving money, making investments, buying a car, acquiring insurance and budgeting. Upon completion, students will be able to prepare personal financial plans and budgets and understand how to manage basic assets such as cash, savings, automobiles and housing. Important discussions will include financial decisions that are made from teenage years to the first years of employment.

CAREER EXPLORATION INTERNSHIP PROGRAM (CEIP) (9017) *Open to Grades 11,12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)

The Career Exploration Internship Program (CEIP) is an experiential-based learning environment designed to assist students with understanding the linkages between school and work. The objectives of the program are:
(1) Provide students out-of-school opportunities to obtain an awareness of a variety of occupations within a broad career cluster. (54 hours)
(2) Provide students the opportunity to obtain first hand understanding and appreciation of the knowledge, skill, and education requirements necessary for various occupations.
(3) Introduce students to positive adult role models who can help instill, reinforce, and equate to successful employment the importance of behaviors such as: a positive attitude, integrity and ethics, human relations, teamwork, timeliness, good study habits, and other related positive behaviors.
The components of the program require that students complete an application for the program, make arrangements to meet with their instructor on a regular basis, and complete all required forms by the end of the semester. Students must complete the required (54) hours of worksite involvement to get credit for the course.
Please note: A student can enroll and complete 1- internship class (9017) for a .5 credit. Students may also complete a 2nd internship/shadowing experience, earning another .5 credit, as long as the 2nd experience is in a different career cluster than the previous internship.

GENERAL EDUCATION WORK EXPERIENCE PROGRAM (GEWEP) (9018)
20 weeks-1/2 credit (*currently not approved NCAA course*) *Open to Grades 9, 10, 11, 12*

The **GEWEP** program is open to any student that has a job. Students will receive all the benefits of the CEIP program with 2 differences. The job does not have to be in a career area of interest and the student needs to complete 150 hours in the semester. Just as stated in the CEIP program, a student can enroll in a 2nd internship and receive another .5 credit. The same criteria apply. A student must complete 150 hours of work within the time frame of the semester.

COLLEGE SUCCESS SKILLS (9027) *Open to Grade 12 Fall*
20 weeks – 1/2 credit (*currently not approved NCAA course*)
College credit through SUNY Erie- GS 111

This course is designed to allow students to practice and engage in skills that successful college students use. Students will learn how to manage and cope through changes that college brings. Students will learn effective study tips, how to manage the schedule of a college curriculum, practice successful financial tips, and prepare to learn in diverse environments. Topics include filling out their FAFSA form, developing their common application, and applying for scholarships in class time.

ENTREPRENEURSHIP (9005) *Open to Grades 9, 10,11,12*
40 weeks – 1 credit (*currently not approved NCAA course*)
College credit through SUNY Erie

This course is designed to introduce students to the important role that entrepreneurship and small business plays in our economic system. In this course, students will take an in-depth look at how to start a business, strategies involved, ethics and developing a business plan. Other topics covered will be business opportunities, sales, marketing, managing employees and website development. Students will participate in the Iroquois "Shark Tank" competition, with the winners receiving scholarship money toward college.

INTRODUCTION TO BUSINESS AND CAREERS (9010) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)
College credit through SUNY Erie

This course will provide opportunities to learn and experience a variety of topics in the field of business. Students are exposed to various economies, their role in our economy, marketing, finance, human resources, career exploration, skills for success, and business etiquette. This course is a great way for all students to have a better understanding of their role in our free-enterprise economy, their future work life, and is especially great for students interested in studying potential business fields.

INTRODUCTION TO MARKETING (9013) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)
College credit through SUNY Erie

Students find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. They learn about buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, product management and social media marketing.

PERSONAL LAW (9020) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit (*currently not approved NCAA course*)
College credit through SUNY Erie- PA 101

This course is designed to provide the student with a general understanding of the law and our legal system. The textbook, classroom lectures and other material will provide the student with the essential background in the law that any undergraduate should have. The intent is to cover the basic fields of law such as property rights, contracts, torts, civil actions and criminal law in the business setting.

SPORTS AND ENTERTAINMENT MARKETING (9014) *Open to Grades 9, 10, 11, 12*
20 weeks - 1/2 credit (*currently not approved NCAA course*)
College credit through SUNY Erie

Prerequisite: Introduction to Marketing

This course focuses on marketing and management functions/tasks that can be applied in amateur or professional sports or sporting events, entertainment or entertainment events, selling or renting of supplies and equipment (other than vehicles) used for recreational or sporting purposes, products and services related to hobbies or cultural events, or businesses primarily engaged in satisfying the desire to make productive or enjoyable use of leisure time.

Iroquois Business Academy

"a school within a school"

Vision:

To offer a sustainable, and prestigious academy in which students can develop business and professional skills related to their personal interests and career goals.

Business Academy Graduates Will:

- Develop transferrable skills such as communication, interpersonal, business etiquette, leadership, personal responsibility, work ethic, adaptability, and persistence.
- Complete an internship in an area of interest to a degree of teacher and employer success.
- Have an opportunity to earn college credit through select business courses.
- Create a network within the local professional community to advance their future goals.

Benefits for Students

- Opportunity to earn college credits
- Opportunity to explore professions through internships and job shadows
- Students will build a professional portfolio
- Student experiences such as business field trips, etiquette luncheon, networking event, and guest speakers

Application Process

- After the 1st business class, students may submit application with two references
- Applicant must have a minimum 80% overall average and an 85% average in business classes
- Applicants will submit a letter of intent as part of their application
- Applications due by the end of the 1st semester and then students will be notified of acceptance by February 15th

Business Academy Member Requirements

- Completion of the required business classes with an 85% or higher
- Participation in a minimum of 5 academy events or meetings per year
- Completion of internship or job shadows

Business Advisory Board:

Advisory Boards are the essential bridge between schools and the workplace. Partnering with the Iroquois High School Business Academy, local businesses, community leaders and parents will boost learning opportunities for students to be successful in pursuing their college and career plans. The Iroquois advisory board meets three times per school year. This allows members to be actively engaged with students, and to create more opportunities for student success. Typical activities of the advisory board include participating as guest speakers, career coaches or project judges, providing job shadows, workplace tours, and internships.

Current Advisory Board Members

Last Name	First Name	Company
Andersen	Rick	Andersen Cuddihy Inc.
Argauer	Rosemary	Bank of America
Sturman	Victoria	East Aurora Chamber of Commerce
O'Rourke	Andrew	Bariatric Fusion
Bostaph	Kay	Moog Aircraft Group
Kelly	Jim	Frederick Machine

Business Academy Pathway

Access meets opportunity

Primary Level Member
-- 4.5 credits required (levels below)

Platinum Level Member
-- 6+ credits required (levels below)

Level One (Choose 1)	*9th or 12th grade respectively*	Introduction to Business* (.5 Cr.)	College Success Skills* (.5 Cr.)		
Level Two (both classes required)	*9th - 12th grade*	Career & Financial Management 1 (.5 Cr.)	Career & Financial Management 2* (.5 Cr.)		
Level Three (Choose 3-5 credits)	*9th - 12th grade*	Entrepreneurship* (1 Cr.)	Accounting* (1 Cr.)	Advanced Accounting (1 Cr.)	
			Introduction to Marketing* (.5 Cr.)	Sports & Entertainment Marketing* (.5 Cr., Pre-requisite- Introduction to Marketing)	Personal Law* (.5 Cr.)
		Courses taught in other departments to be applied towards Business Academy credit:	Advanced Financial Algebra I (.5 Cr., Math Dept.)	Public Speaking (.5 Cr., ELA Dept.)	
Level Four (Choose 1)	*11th – 12th grade*	Internship Experience (.5 Cr.)	Job Shadows (0 Cr., 2-3 required)		

-- 2 job shadows or internship required

-- 3 job shadows or 1 internship
-- NYS Business and Marketing Honor Society

*College Credit bearing courses

ENGLISH DEPARTMENT

The English program reflects the Next Generation Learning Standards for English Language Arts in preparing students for College and Career Readiness. Skill development in critical thinking, close ready, clarity of writing, and articulate speaking moves students toward creative, purposeful expression in language, the hallmark of literacy. English 9, 10, and 11[1] provide students progressive practice in these skills, culminating in the Next Gen Exam in English. Advanced Placement Literature and Composition, as well as fourth-year English courses, provides students opportunities to explore special areas of interest while practicing college-preparatory reading and writing.

[1]Advanced Placement Language and Composition may be taken in place of English 11.

ENGLISH 9R (1102) *Open to Grade 9*
40 weeks - 1 credit Local Final Exam

Prerequisite: none

English 9 develops the knowledge and skills outlined in the Next Generation Standards for English Language Arts and literacy for grade nine, providing academic readiness for English 10. The course features units on short stories, poetry, drama, nonfiction, and Shakespeare.

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 9.

ENGLISH 10R (1112) *Open to Grade 10*
40 weeks - 1 credit Local Final Exam

Prerequisite: English 9R credit earned

English 10 develops the knowledge and skills outlined in the Next Generation Standards for English Language Arts and literacy for grade ten, providing academic readiness for English 11 or Advanced Placement Language and Composition. The course features units on short stories, poetry, drama, nonfiction, Shakespeare, and MLA parenthetical documentation for research.

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 10.

ENGLISH 11R (1122) *Open to Grade 11*
40 weeks - 1 credit JANUARY NYS English Regents Exam

Prerequisite: English 9 and 10 credits earned

English 11 develops the knowledge and skills outlined in the Next Generation Standards for English Language Arts and literacy for grade eleven, providing academic readiness for the fourth year of English study. The class examines the deeper thematic implications of American society through literature. The MLA research paper is also taught to provide students with instruction and experience in developing research writing and documentation skill sets for college preparation.

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 11.

ADVANCED PLACEMENT LANGUAGE AND COMPOSITION (1154) *Open to Grades 11,12*
40 weeks – 1 credit NYS English Regents & AP Exams

Prerequisite: English 9 and 10 credits earned

AP Language and Composition develops the knowledge and skills required for the rhetorical analysis of sophisticated texts. Rigorous college-level reading and writing is standard.

Sample Studies: a variety of fiction and nonfiction texts reflecting the Advanced Placement recommended literature for AP Language and Composition.
All students are required to take the AP Examination in May.

Advisable Prerequisites:

- **An 85+ average in English 10R**
- **An 85+ on the English 10R Final Exam**
- **Teacher Recommendation from an English 10R teacher and Academic Advisement**
- **Required summer reading assignment**

ADVANCED PLACEMENT LITERATURE AND COMPOSITION (1155) *Open to Grade 12*
40 weeks - 1 credit *(Articulation Agreement with Hilbert College)* AP Exam

Prerequisite: English 9, 10, and 11 credit earned

Dual Enrollment Course: Articulation Agreement with Hilbert College

- *Prerequisite: Completion of AP Language & Composition (or) College Research Writing*

AP Literature and Composition develops the knowledge and skills required for the literary analysis of sophisticated texts. Rigorous college-level reading and writing is standard.

Sample Studies: a variety of fiction and nonfiction texts reflecting the Advanced Placement recommended literature for AP Literature and Composition. **All students are required to take the AP Examination in May and/or elect the Dual Enrollment option.**

Advisable Prerequisites:

- **An 85+ average in English 11R**
- **An 85+ on the NYS English Regents Exam**
- **Teacher Recommendation from an English 11R teacher and Academic Advisement**
- **Required summer reading assignment**

12th GRADE ENGLISH COURSES

All courses involve the skills of reading, writing, speaking, and listening.

COMPOSITION AND CREATIVE WRITING (1140) *Open to Grades 11, 12*
20 weeks – ½ credit

Prerequisite: English 9 and 10 credits

This is an intense writing course, so plan on coming to class each day ready to write. The class explores various forms of creative, college level and research styles of writing, writing as process and partner/group activities and focuses on the rules of writing. It is strongly encouraged for students to share their written work with the class. This class is also designed for students to develop their own unique voices and distinct writing styles. Students will be required to complete an MLA style research project.

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 12

MYTHOLOGY (1142) *Open to Grades 11, 12*
20 weeks – ½ credit

Prerequisite: English 9 and 10 credit earned

Partake in the hero's quest as he braves new lands, confides in the wise man, battles mythical beasts, and rescues the beautiful maiden all in the continual battle of good versus evil. Course literature includes mythology, folklore, legends and fairytales from a variety of cultures.
The course features literature in the Classics that explores famous literature throughout the ages. Students will select one major text to read in a particular genre, either legend or mythology, then follow up with shorter works and files to demonstrate the different varieties of tales stemming from the folklore of different regions. College level preparatory reading and writing is standard, along with research and group projects.

Possible reading and film selections include: *Brothers Grimm Fairytales, "*Legend of Sleepy Hollow*," Epic of Gilgamesh, 1001 Arabian Nights, Beowulf, The Once and Future King,* and/or *The Odyssey; O Brother Where Art Thou, Troy, A Knight's Tale, Unbreakable.*

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 12

PUBLIC SPEAKING (1141) *Open to Grades 11, 12*
20 weeks – 1/2 credit

Prerequisite: English 9 and 10 credit earned

Learn communication skills necessary for speaking publicly, including writing and performing experiences. The class introduces the characteristics of effective public speaking and common types of speech delivery. Speeches will explore different functions to inform, persuade, and entertain audiences. Presentations provide the opportunity for practice and skill-development in these areas. A high level of class participation is required. College-level preparatory reading and writing is standard.

Sample Studies: a variety of listening and speaking activities; textbook readings; use of research sources and digital media which reflect the standards for English 12

SCIENCE FICTION (1148) *Open to Grades 11, 12*
20 weeks - 1/2 credit

Prerequisite: English 9 and 10 credit earned

This class explores the realm of the science fiction genre through the works of notable authors such as Ray Bradbury, Kurt Vonnegut and George Orwell through social criticism and historical lens. Our studies will be in the forms of short stories, novels (*The Martian Chronicles, 1984, The Invisible Man* and/or *Cat's Cradle)* and film. Students will be required to complete an MLA style research project.
Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 12

SPORT IN LITERATURE (1157) *Open to Grades 11, 12*
20 weeks – 1/2 credit

Prerequisite: English 9 and 10 credit earned

Read, engage, and explore traditional and adventure sports on an electronic reader and through reflective writing. Engage in traditional sports through the selections of *The Blindside, Friday Night Lights, The Greatest Game Ever Played, Beckham: Both Feet on the Ground*. Explore outdoor adventure stories such as *Born to Run, Soul Surfer, Between a Rock and a Hard Place,* and *Into Thin Air.*

Sample Studies: a variety of fiction and nonfiction texts reflecting the standards for English 12

FILM ANALYSIS (1145) *Open to Grade 12*
20 weeks – ½ credit *(currently not approved NCAA course)*

Prerequisite: English 11 credit earned

Are you a movie buff? Horror, comedies, dramas, westerns, thrillers—we've got them all here! Take a journey through the Golden Age of film all the way to the modern-day blockbusters that light up the silver screen.

The course explores the history of film and its impact on American pop culture over the past century. Students will examine major film classics, notable directors, blockbuster hits, as well as artful independent films. Cinematography and a myriad of techniques employed in movie making will be emphasized. Course activities will feature research and group projects.

Possible selections include: Avengers, The Sixth Sense, The Great Gatsby, Pearl Harbor, The Shawshank Redemption, The Dark Knight, West Side Story, Gone With the Wind, Casablanca, Forrest Gump, Psycho, The Wizard of Oz, Sherlock Holmes, Citizen Kane, Vertigo, and/or The Good, the Bad, and the Ugly.

Sample Studies: A variety of fiction and nonfiction texts, films, and documentaries reflecting the standards for English 12

COLLEGE WRITING (1149) *Open to Grade 12*
20 weeks- ½ credit (*Articulation Agreement with Hilbert College)*

This course aims to prepare students for college essay writing as well as advanced research writing that will be required at the baccalaureate level. Emphasis will be placed on the stages of writing and paper organization. Students will develop their ability to write effectively by evaluating and enhancing their composition skills.
Topics will include writing using a variety of rhetorical modes; utilizing credible secondary research sources; recognizing the elements of grammar and punctuation; evaluating written sources; and making judgments regarding content, structure, and organization of their own written pieces. The class will also prepare the college admissions and/or college scholarship essay. Oral communication will also be explored with emphasis placed upon conducting engaging presentations and defending an argument. Both MLA and APA parenthetical documentation styles will be taught in the course to prepare students for various degree programs, which will include an annotated bibliography.

Sample Studies: A variety of nonfiction texts and research sources reflecting the standards for English 12.

CAREER & TECHNICAL WRITING (1139) *Open to Grades 11, 12*
20 weeks- 1/2 credit *(currently not approved NCAA course)*

Focuses on techniques of objective reporting on scientific and technical material; principles of technical exposition; study of language uses; writing samples and principles of various technical reports, including abstracts, proposals, and manuals. Students will complete a variety of assignments that will prepare them for college and career.

HEALTH EDUCATION

HEALTH (7715) *Open to Grades 9, 10, 11, 12*
20 weeks - 1/2 credit – New York State Graduation Requirement
(currently not approved NCAA course)

Health is designed to give students the opportunity to enhance their health and well-being through teaching and learning. The course covers various topics including mental health, social health, physical health, substance abuse and diseases. Skills such as decision making, goal setting, advocacy, self-management, accessing valid information, analyzing influences, and communication will be practiced. Through a variety of teaching methods, students will learn how to make healthy choices in their life. New York State mandated parenting standards, HIV/AIDS education, opiate abuse, and mental health will be met throughout the course.

EXPLORATION HEALTH (7716) *Open to Grades 11, 12*
20 weeks - 1/2 credit *(currently not approved NCAA course*)

Prerequisite: Health credit earned and teacher recommendation

This elective course will provide an opportunity to further explore and dig deeper into the endless areas of health and wellness. This project based, technology assisted course will center around student interest and current health issues in our society and beyond. Topics of study will vary by semester based on student voice and choice but will center on health and wellness. There will be collaborative and individual project responsibilities. Students are expected to engage in activities within and outside of the classroom, conduct research, and self-reflect throughout the course. Upon completion, students will have gained knowledge of themselves and the world they live in. Prior parent approval may be necessary due to the material presented.

PHYSICAL EDUCATION

20 weeks – 1/4 credit, per semester – New York State Requirement
The Physical Education program will provide students with a variety of individual, group, and wellness-based activities. Students will graduate with a diverse foundation on which to build their own recreational plan. Students are expected to be in attendance and prepared to participate. These expectations will allow for student success. Students are required to be enrolled in Physical Education every semester of their High School career. Two full credits are required for graduation.

PHYSICAL EDUCATION I: (7709) sem 1 (7710) sem 2
20 weeks – 1/4 credit Open to Grades 9, 10, 11, 12

This Physical Education course will focus on developing student knowledge of and competency in motor skills, movement patterns, games, rules and strategies essential to perform a variety of physical activities. These activities include but are not limited to the following: Disc golf, pickle ball, volleyball, ultimate frisbee, fitness, floor hockey, and recreation games. This PE experience is for those looking to gain more lifetime activities and skills.

*NOTE: ALL 9th GRADERS MUST BE ENROLLED IN PHYSICAL EDUCATION I

PHYSICAL EDUCATION II (C): (7711) sem 1 (7712) sem 2
20 weeks – 1/4 credit Open to Grades 10, 11, 12

Physical Education II is a course option for students who are looking for a more rigorous PE experience. This course will apply knowledge and skills gained from Physical Education I, completed during 9th grade. Participation in course activities will be high energy and fast paced. A previous understanding of activities is an expectation.

*NOTE: THIS COURSE IS OPEN FOR 10-12th GRADERS WHO HAVE COMPLETED PHYSICAL EDUCATION I

WORLD LANGUAGES
(Formerly LOTE)

Students must earn credit in World Languages for graduation. This requirement could be satisfied in the Middle School if the student successfully completes French or Spanish 7 and 8.

Students are strongly encouraged to earn at least 3 credits in World Languages to fulfill Advanced Regents diploma requirements and meet admissions requirements for many colleges.
(All of the World Languages classes have been NCAA approved)

Spanish and French National Honor Societies

General Eligibility Requirements to be met by all students:

a. Candidates must be in the 11th or 12th grade.
b. Membership shall be based on the student's academic performance, with an emphasis in French or Spanish.
c. Membership shall be restricted to those students actively engaged in the study of World Languages in Level 3 or higher.
d. Candidates must submit an application that will be reviewed by the World Languages department prior to acceptance.
e. The student membership fee must be paid before initiation. Each student member will receive a personalized Certificate of Membership. The membership fee may vary from year to year depending on the SHF/SHH standards. The membership fee is $10.00, which includes a personalized membership certificate. Seniors also have the option to purchase SHF/SHH cords to wear at graduation. The cost is $15.00.
f. Students must attend the induction ceremony for membership to be official.
g. Transfer students must have spent at least one full semester in the high school before becoming eligible.
h. To remain an active member of SHF or SHH students must be enrolled in a French or Spanish course.

Scholastic Eligibility Requirements to be met by all students:

a. Candidates must have maintained a 90 average or higher in French or Spanish during the marking period of selection.
b. Candidates must have an averaged cumulative grade of 90 or higher for all French or Spanish work awarded secondary school credit.
c. Candidates must have maintained a final overall average of 80 or higher during the marking period of selection.
d. Candidates must have maintained an average cumulative grade of 80 or higher during all years of high school.
e. Candidates must attach a printed copy of their high school transcript (printed from the portal) to their application.

New York State Seal of Biliteracy

Students who continue their studies through Level 5 French or Level 5 Spanish, may choose to earn the **New York State Seal of Biliteracy**. The New York State Seal of Biliteracy recognizes high school graduates who have attained a high level of proficiency in listening, speaking, reading and writing in one or more languages, in addition to English.

FRENCH I (5501) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit

Prerequisite: None

This is an introduction to the French speaking world. The emphasis is on speaking, writing, listening and reading activities. Students engage in simple conversations with their peers or teacher. Much of the class is focused on vocabulary and cultural topics. A thorough foundation of grammar skills is introduced. A locally developed exam is given in June.

FRENCH II (5502) *Open to Grades 9, 10, 11, 12*
40 weeks - I credit

Prerequisite: French I

This course is a further development of speaking, listening, writing, and reading activities with more emphasis on grammar skills. Students focus their attention on correct pronunciation while learning more complex sentences in the present and past tenses. Students will also gain a deeper understanding of culture by learning about French speaking countries' current events, food, holidays, and music. Speaking French during class time is required in order to create a more authentic atmosphere and to develop the students' ability to converse on various topics with the teacher and among themselves. A locally developed exam is given in June.

FRENCH III (5503) *Open to Grades 10, 11, 12*
40 weeks - 1 credit

Prerequisite: French II

French III is a culmination of three consecutive years of French, where a more complete understanding of the language as a whole is emphasized through more extensive reading, listening and writing. Speaking French during class time is required in order to create a more authentic atmosphere and to develop the students' ability to converse on various topics with the teacher and among themselves. New York State requires French III students to take a French III Comprehensive Regents Examination which has been locally developed. Students must pass this exam to receive Regents credit for the course. Students must take this exam during the scheduled time in June. If a student fails to take the June exam on the scheduled date, the next exam administration is the following January.

FRENCH IV (5504) *Open to Grades 11, 12*
40 weeks - 1 credit

Prerequisite: French III

This is an advanced language course for the serious language student. Upon entering, students must have a solid foundation in all French skills. The review and mastery of all previously learned French vocabulary, grammar, concepts, and skills are essential for success at this level. Students will be required to speak, read, write, and listen in French with proficiency in multiple verb tenses and complex grammar topics. Students will also gain a deeper understanding of the French-speaking world by researching and presenting the culture, history, and challenges of francophone countries. A locally developed exam is given in June.

FRENCH V (5507) *Open to Grade 12*
40 weeks – 1 HS credit and 3 credits issued by Hilbert College

Prerequisite: 4 units of high school French and recommendation of instructor

This is an advanced French course for high school students who have completed 4 high school units of study. Advanced levels of speaking, listening, reading, and writing will be emphasized, while fundamentals in each of these categories will be reviewed on a consistent basis. Reading will encompass comprehension of literary-based prose, poetry, and dialogue along with current events from French sources. Writing skills, exploring a variety of styles, will reinforce topical issues. Advanced grammar and vocabulary will be an integral part of the course. Previously learned grammatical structures and vocabulary will be reviewed and reinforced. An emphasis in the course on global communications, history, geography and culture will provide an awareness of the French-speaking world and importance of multilingualism. Students will complete a deep cultural investigation of a French–speaking region and present their findings, which may culminate in earning the New York State Seal of Biliteracy, if desired. Students will take a comprehensive final examination in June.

FRENCH FOR COMMUNICATION & BUSINESS (5508) *Open to Grades 11, 12*
40 weeks – 1 credit

Prerequisite: French IV or French III with instructor recommendation or a French III FA of 85 or better.

Advanced French for Communication and Business will focus on aural/oral and writing skills in French needed to conduct business in French-speaking countries around the world, including the United States. Practical situations, technical vocabulary and correspondence will be highlighted. Students will conduct research on locally based international companies and their markets, with a focus on the potential for an internship or future employment.

SPANISH I (5520) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit

This course is an introduction to the Spanish language and culture around the world. Students speak, read, write, and listen to Spanish in the present tense, while being introduced to basic vocabulary words for several topics. Students engage in conversations with each other and the instructor. Basic grammatical structures are introduced and thoroughly practiced throughout the course. A locally developed exam is given in June.

SPANISH II (5521) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit

Prerequisite: Spanish I

Spanish II, an intermediate course, aims to refine important basic grammar skills, while reviewing familiar vocabulary terms. Recognizable vocabulary topics are expanded upon through the introduction of new words within these topics. In addition, cultural themes are woven through each topic studied. Reading, writing, speaking, and listening are the vehicles through which students master the present tense and explore the preterit and imperfect, the first two past tenses studied in Spanish. Students take a comprehensive final examination in June.

SPANISH III (5522) *Open to Grades 10, 11, 12*
40 weeks - 1 credit

Prerequisite: Spanish II

Spanish III is a culmination of three consecutive years of Spanish, where a more complete understanding of the language as a whole is emphasized through more extensive reading, listening and writing. Speaking Spanish during class time is required in order to create a more authentic atmosphere and to develop the students' ability to converse on various topics with the teacher and among themselves. New York State requires Spanish III students to take a Spanish III Comprehensive Regents Examination which has been locally developed. Students must pass this exam to receive Regents credit for the course. Students must take this exam during the scheduled time in June. If a student fails to take the June exam on the scheduled date, the next exam administration is the following January.

SPANISH IV (5523) *Open to Grades 11, 12*
40 weeks - 1 credit

Prerequisite: Spanish III

This is an advanced language course for the serious Spanish language student. Upon entering, students must have a solid foundation in all basic Spanish skills. The review and mastery of all previously learned Spanish vocabulary, grammar, concepts, and skills are essential for success at this level. History, culture, and literature are emphasized. Students will be required to speak, read, write, and listen in Spanish with proficiency regarding to multiple verb tenses.

SPANISH V (5527) *Open to Grade 12*
40 weeks - 1 HS credit and 3 credits issued by Hilbert College

Prerequisite: 4 units of high school Spanish and recommendation of instructor

This is an advanced Spanish course for high school students who have completed 4 high school units of study. Advanced levels of speaking, listening, writing, and reading will be emphasized, while fundamentals in each of these categories will be reviewed on a consistent basis. Reading will encompass comprehension of literary-based prose, poetry, and dialogue along with current events from Spanish sources. Writing skills, exploring a variety of styles, will reinforce topical issues. Advanced grammar and vocabulary will be an integral part of the course. Previously learned grammatical structures and vocabulary will be reviewed and reinforced. An emphasis in the course on global communication, history, geography, and culture will provide an awareness of the Spanish-speaking world and the importance of multilingualism. Students will complete a deep cultural investigation of a Spanish–speaking region and present their findings, which may culminate in earning the New York State Seal of Biliteracy, if desired. Students will take a comprehensive final examination in June.

SPANISH FOR COMMUNICATION & BUSINESS (5528) *Open to Grades 11, 12*
40 weeks – 1 credit

Prerequisite: Spanish IV or Spanish III with instructor recommendation or a Spanish III FA of 85 or better.

Advanced Spanish for Communication and Business will focus on aural/oral and writing skills in Spanish needed to conduct business in Spanish-speaking countries around the world, including the United States. Practical situations, technical vocabulary and correspondence will be highlighted. Students will conduct research on locally based international companies and their markets, with a focus on the potential for an internship or future employment.

MATHEMATICS

In accordance with New York State requirements, all students will be required to take three years of Mathematics and pass the Algebra 1 Regents examination.

Students who wish to receive an Advanced Designation Regents Diploma will take three years of Mathematics and must also pass the Geometry and Algebra 2 Regents examinations.

GRADE	COURSES	COURSES	COURSES	COURSES	CS COURSES
8	Algebra I				
9	Geometry	Algebra I	Algebra I	Intro To Alg	Intro To CS
10	Algebra 2	Geometry	Geometry OR App Geometry	Algebra I	AP CSP
11	Pre-Calculus*	Algebra 2	Trig/Alg 2	Geometry OR App Geometry	AP CS-A or Visual Basic
12	Calculus 1* Statistics*	Pre-Calculus* Statistics*	Algebra 2	Algebra 2 OR Trig/Alg 2	Comp Prog OR Visual Basic

- *Students have the option to earn college credit in these courses for additional fees.
- Students can earn Advanced Placement (AP) credit in the following courses: Calculus 1, Statistics, Pre-Calculus, CSP, and CS-A.
- Additional math courses bearing one-half school credit each: Basic Practice of Statistics, Data Science 101, Problem Solving, Advanced Algebra with Financial Applications – 101 & 102 (AAFA 101 & AAFA 102), Trigonometry, Introduction to Computer Science, Computer Programming, and Visual Basic.
- Additional math courses bearing one school credit each: AP Calculus (AB), Calculus 1 (SUPA), AP Statistics, AP Computer Science Principles, AP Computer Science A (Java), Accounting, Advanced Accounting, and Business Math.

INTRODUCTION TO ALGEBRA (3400) *Open to Grade 9*
40 weeks - 1 credit (*currently not approved NCAA course)* Local Final Exam

Prerequisite: Recommendation of Middle School teachers and school counselor

This course will provide a foundation for Algebra for students with weak mathematical skills. Topics included in this course are: rational numbers, variable expressions, introduction to equations and inequalities, graphing on the coordinate plane, ratio and proportion, algebraic applications of geometry, probability and statistics.

ALGEBRA 1 (3402) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit Regents Exam

Prerequisite: None

Algebra 1 is typically the first mathematics course in high school. Topics include: operations with real numbers, number properties and number systems, simple algebraic expressions, first degree equations, linear equations, systems of linear equations, set theory, ratio and proportion, statistics, solving word problems algebraically, using algebra in geometric formulas, operations with exponents, solving inequalities, logic, operations with algebraic expressions, special products and factors, algebraic fractions, radicals, quadratic equations. This course will assist students in developing skills and processes that can be applied using a variety of techniques to successfully solve problems in a variety of settings and content areas. **Students will take the Algebra 1 New York State Regents examination at the end of the school year.**

Since the Algebra 1 examination will allow the use of a graphing calculator, a TI-NSPIRE graphing calculator is recommended for use and will be used for instructional purposes in all Algebra 1 classrooms.

GEOMETRY (3404) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit Regents Exam

Prerequisite: Algebra 1 credit earned

This course will provide an integrated study of geometry with algebraic applications and will include geometry of the circle, transformations, similar figures, trigonometry, polygons, constructions and solid geometry based on the common core standards. Students will also utilize given hypotheses to arrive at conclusions using a logical step-by-step process. **Students will take the Geometry New York State Regents examination at the end of the school year.**

Since the Geometry examination will allow the use of a graphing calculator, a TI-NSPIRE graphing calculator is recommended for use and will be used for instructional purposes in all Geometry classrooms.

APPLIED GEOMETRY (3406) *Open to Grades 10, 11, 12*
40 weeks – 1 credit *(currently not approved NCAA course)* Local Exam

Prerequisite: Algebra 1 credit earned

This course will provide an integrated study of geometry with algebraic applications and will include transformations, similar figures, trigonometry, geometry of the circle, the study of various polygons, and solid geometry. Coursework will be aligned to the Geometry curriculum (without proofs) to allow students the opportunity to take the following year, if desired. A local final exam will be given in June.

ALGEBRA 2 (3420) *Open to Grades 10, 11, 12*
40 weeks – 1 credit Regents Exam

Prerequisite: Passing Algebra 1, Algebra 1 Regents Exam, and Geometry. Suggested that Geometry Regents Exam be passed. **Algebra 1 & Geometry exam grades of 85 or better recommended

This course will review and study in more depth the main topics in Algebra and Geometry, focusing on many aspects of functions. The course includes exponential and logarithmic functions, radical, quadratic and polynomial functions, transformations of functions, series and sequences, as well as statistics and probability. **Students will take the Algebra 2 Regents Exam at the end of this course.**

Since the Algebra 2 examination will allow the use of a graphing calculator, a TI-NSPIRE graphing calculator is recommended for use and will be used for instructional purposes in all Algebra 2 classrooms.

TRIG/ALGEBRA 2 (3421) *Open to Grades 10, 11, 12*
40 weeks – 1 credit Local Exam

Prerequisite: Algebra 1 and Geometry credits earned

Topics included in this course are: continued use of the TI-NSPIRE graphing calculator, data analysis, statistics and probability, quadratic, exponential, logarithmic and power functions, transformational geometry, logic, and algebraic applications. Coursework will be aligned to the common core Algebra 2 curriculum to allow students to take Algebra 2 the following year, if desired.

PRE-CALCULUS (3433) *Open to Grades 11, 12*
40 weeks - 1 HS credit and 4 credits issued by SUNY Erie Local Exam

Prerequisite: Algebra 2 credit earned

This course is designed to prepare the student to successfully complete any college freshmen level mathematics course. The course includes the study of: algebra, the binomial theorem, analytic geometry, linear functions, quadratic functions, polynomial functions, the remainder and factor theorems, inverse functions, exponential and logarithmic functions, circular functions, trigonometric functions, trigonometric identities, matrices, mathematical induction, limits, introduction to differential and integral calculus, curve sketching, maximum-minimum problems, and the fundamental theorem of calculus. It also includes polar and parametric graphing and applications, and vectors and applications. Success in a calculus course depends upon having acquired a thorough understanding of functions, and therefore, there will be a considerable emphasis in this course on functions and their graphs.
A TI-NSPIRE will be used during the course of the year.

BUSINESS MATHEMATICS (9003) *Open to Grades 9, 10, 11, 12*
40 week – 1 credit (*currently not approved NCAA course*) Local Exam

Topics covered provide a broad introduction to the business content and terminology that will be studied in greater detail in advanced business classes. Some of the topics are: Basic Mathematics; The Paycheck (overtime pay, fringe benefits); Money Records (checkbook, bank statements); Home Expenses (your first apartment); Transportation (car insurance); Borrowing Money (college); Budgeting and Buying; Owning a Small Business. Work in this course is project-based.

THE BASIC PRACTICE OF STATISTICS (3456) *Open to Grades 11, 12*
20 weeks – 1/2 credit Local Exam

Prerequisites: Algebra 1 & Geometry

This course is an introduction to the increasingly prevalent use of statistics in various professions, public policy and everyday life. Students will learn the basics of data production, data analysis and statistical inference. This engaging activities-based course will provide students with techniques that will help them organize, describe and display data that will yield interesting conclusions.

DATA SCIENCE 101 (3461) Open to Grades 10, 11, 12
20 weeks – 1/2 credit

Prerequisite: Algebra I, Geometry

This course will develop skills in data science by emphasizing a modeling approach. Students will learn to use data and modeling to answer questions and to critically evaluate information. This is achieved, in part, by embedding opportunities for students to engage in productive struggle, deliberate practice, and practicing explicit connections between concepts into the structure of the course and its textbook. The goals of the course are for students to develop the habits of mind of a data scientist, such that they can problem solve flexibly with data in a variety of situations. The course also aims to develop the practical skills needed across the stages of the data science cycle, including data collection, analyses, and communication of results. Furthermore, a significant goal of the course is to provide students with skills that are future-oriented and tied to the real-world so that they are better equipped for their future careers. This course is applicable to various fields including but not limited: education, healthcare, digital marketing and advertising, banking, finance, gaming, sports, and logistics. This course will also build upon knowledge from the Basic Practice of Statistics.

ADVANCED PLACEMENT STATISTICS (3440) *Open to Grades 11, 12*
40 weeks – 1 HS credit and 3 credits issued by Hilbert College AP Exam

Prerequisite: Algebra 1 and Academic Advisement

Topics include; organizing data, averages and variations, probability theory, distributions (binomial, normal, sampling, chi-square and F), estimation, hypothesis testing, regression and correlation, and non-parametric statistics. Statistics is appropriate for careers in education, the allied health fields, business, economics, engineering, the humanities, the physical sciences, journalism, communications and liberal arts.
Technology will include use of the TI-NSPIRE graphing calculator. **All students are required to take the AP Examination in May if not enrolled through Hilbert College.**

ADVANCED PLACEMENT CALCULUS (AB) (3447) *Open to Grade 12*
40 weeks – 1 credit AP Exam

Prerequisite: Algebra 1, Geometry, Algebra 2,
Pre-Calculus recommended, an 85 average & Academic Advisement

Advanced Placement Calculus AB is an in-depth study of Calculus (Differential and Integral). The course is generally designed for those students who began our accelerated mathematics program by completing Pre-Calculus by the end of their junior year. Study will be geared to the Advanced Placement Test given in May. The syllabus will follow that of the Advanced Placement program and may result in up to one semester of college credit. **All students are required to take the AP Examination in May and a class final exam.**

CALCULUS 1 (MAT 295) (3448) *Open to Grade 12*
40 weeks – 1 HS credit and 4 credits issued by Syracuse University Local Exam

Prerequisite: Algebra 1, Geometry, Algebra 2,
Pre-Calculus recommended, an 85 average, & Academic Advisement

Calculus 1 is a college level course offered by Syracuse University. The course is designed for students who intend to take upper-level mathematic courses after high school, with a post-graduation interest in the sciences or engineering major.

The course covers concepts of functions, limits, differentiation, integration and includes application of these concepts such as graphing sketching, optimization, linearization, and the computation of areas, volumes, and arc length. After successful completion of the course, students will receive college credit from Syracuse University. Any student enrolled in this course will also have the opportunity to challenge the AP Calculus AB Examination in May.

ADVANCED ALGEBRA W/ FINANCIAL APPLICATION 101 (3455) *Open to Grades 11,12*
20 weeks –1/2 credit Local Exam

Prerequisite: Algebra 1, Geometry, recommendation of an 85 on Regents Examinations

This is a project-based course that builds on your prior knowledge of math concepts that connect algebra to what is going on in your life. AAFA 101 will help you to understand finances in mathematical terms giving you the tools for helping you to learn the time value of money, how to evaluate best business practices, working through investing, banking, credit, income taxes, insurance and budgeting. A departmental final assessment is given at the end of the semester.

ADVANCED ALGEBRA W/ FINANCIAL APPLICATION 102 (3457) *Open to Grades 11, 12*
20 weeks – 1/2 credit Local Exam

Prerequisite: AAFA 101 credit earned

This is a project-based course that builds on AAFA 101 and continues using the materials necessary to make students knowledgeable about their daily financial encounters. Topics include; auto insurance, income taxes, banking investments, stock market investing, health and home owner's insurance, and the algebra and basic geometry that are required to make responsible consumer decisions. A departmental final assessment is given at the end of the semester.

PROBLEM SOLVING (3454) *Open to Grades 11, 12*
20 weeks – 1/2 credit Local Exam

Prerequisite: Algebra 1 & Geometry

This course will provide students with techniques to develop their problem-solving strategies. Students will be asked to demonstrate their mastery of critical listening, critical thinking, and assertive problem-solving processes that result in high quality solutions to problems. Topics will include mathematical applications to problems from business and economics, humanities and social sciences, physical sciences and engineering and life sciences. Students will work collaboratively and will be required to present written and oral explanations of their work.

TRIGONOMETRY (3458) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit Local Exam

Prerequisite: Algebra 1 Regents Exam and Geometry Regents Exam

This course will provide students with an understanding of Trigonometry. Trigonometry is the study of angles and lengths of triangles, but trigonometric functions have far reaching applications beyond simple studies of triangles. Trigonometry is essential to the study of higher mathematics and to the understanding of many scientific and engineering principles. This course is designed to help prepare students to enroll for a first semester course in many programs in college; like nursing, engineering and the medical field. This will give students a deeper understanding of the concepts they will need in many STEM/STEAM/Skilled trades careers. A departmental final assessment is given at the end of the semester.

INTRODUCTION TO COMPUTER SCIENCE (3459) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit Local Exam

Students will be introduced to computer programming in a project-based course. The course will teach students the fundamental concepts of computer science through the writing of various applications. Students will use problem-solving skills and logic to create computer programs and applications. The focus of the course will be in the writing and debugging of software. Topics include; data structures, looping, operating systems and number representation.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES (3449)
40 weeks – 1 credit Open to Grades 9, 10, 11, 12
AP Exam

Prerequisite: Algebra 1 credit earned or Intro to Computer Science

Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. More than a traditional introduction to programming, it is a rigorous, engaging, and approachable course that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in. **All students are required to take the AP Examination in May.**

ADVANCED PLACEMENT COMPUTER SCIENCE A (3460)
40 weeks – 1 credit Open to Grades 10, 11, 12
AP Exam

Prerequisite: Algebra 1, and Intro to Computer Science or AP CSP

The AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. **All students are required to take the AP Examination in May.**

COMPUTER PROGRAMMING (3450) *Open to Grades 11, 12*
20 weeks -1/2 credit Local Exam

Prerequisite: Algebra 1, Geometry, and Intro to Computer Science or AP CSP

This course will teach the beginning skills of programming using the language C++. The course will begin with a brief history of the C++ language and some basic math using the binary number system.

The first programs written will include the use of variables, remarks, math and string operators and introductory output commands. These programs are then expanded to include the use of control loops. To produce more advanced programs, the use of arrays and fundamentals such as sorting and searching will be presented.

VISUAL BASIC (3452) *Open to Grades 11, 12*
20 weeks -1/2 credit Local Exam

Prerequisite: Algebra 1, Geometry, and Intro to Computer Science or AP CSP

This course will be an introduction to the programming language Visual basic. Visual Basic (VB) is an event-driven programming language and environment from Microsoft that provides a graphical user interface (GUI) which allows programmers to modify code by simply draggEasy to Learn even Without Programming Basics. Visual Basic is a programming language which does not need you to know any programming language to be able to learn it. Students need logical thinking and a willingness to automate tasks.

MUSIC DEPARTMENT

(No music courses are NCAA approved)

To fulfill the requirements for a five-unit sequence in music (in lieu of foreign language) for a Regents Diploma with Advanced Designation, a student must successfully complete five units of credits in:

A. 2 credits of theory plus
B. 3 credits ensemble (band, orchestra, chorus)

MUSIC PROGRAM

INSTRUMENTAL	***VOCAL***	***ELECTIVE***	
SYMPHONIC BAND 9,10,11,12 40 weeks – 1 credit	**CHORALE** 9,10,11,12 40 weeks – 1 credit	**MUSIC THEORY I** 10,11,12 40 weeks – 1 credit	
WIND SYMPHONY (By audition) 10,11,12 40 weeks – 1 credit	**CONCERT CHOIR** (By audition) 10,11,12 40 weeks – 1 credit	**MUSIC THEORY II** 11,12 40 weeks – 1 credit	
ORCHESTRA 9,10,11,12 40 weeks – 1 credit	**SWING CHOIR** (By audition) 10,11,12 40 weeks – .5 credit	**MUSIC IN OUR LIVES** 9,10,11,12 40 weeks – 1 credit	

INSTRUMENTAL

SYMPHONIC BAND (6764) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit

Prerequisite: Open to any student who has prior experience playing a band instrument in a concert band setting. Director's approval is required. Preference is given to students who have been members of the Middle School Concert Band or Wind Ensemble.

Symphonic Band is a course designed to meet the needs of anyone interested in continuing their training on a band instrument. The ensemble also serves as a training group for the Wind Symphony. Symphonic Band meets daily and is devoted to performing a wide variety of band literature available, based on the ability of the ensemble. Weekly school music lessons, attendance at performances, practice, and musical progress are course requirements.

*Members of the Symphonic Band and Wind Symphony form the Marching Band.

WIND SYMPHONY (6752) *Open to Grades 10, 11, 12*
40 weeks – 1 credit

Prerequisite: Open to qualified wind and percussion players, with admittance by yearly audition.

Wind Symphony is a course designed to meet the needs of the more advanced student interested in playing a band instrument. Wind Symphony meets daily and is devoted to playing a wide variety of more advanced band literature. Weekly school music lessons, attendance at performances, practice, and musical progress are course requirements.

*Members of the Wind Symphony and Symphonic Band form the Marching Band.

**Members of the Wind Symphony are selected to also perform in the Full Orchestra during various concerts throughout the year. Full Orchestra participation is based on seniority and seating within Wind Symphony. Wind Symphony students who participate in Full Orchestra are required to attend all Orchestra performances and will receive an additional Concert Performance grade as part of their Wind Symphony marking period average.

ORCHESTRA (6754) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit

Prerequisite: Open to any student who has prior experience playing an instrument in an orchestra setting. Director's approval is required.

The Symphony Orchestra offers complete instrumentation, and repertoire including major works of classical, romantic and modern orchestral literature. The Orchestra performs several concerts throughout the year which include a Fall Harvest Concert, Winter and Spring concerts and annual NYSSMA festival participation. Weekly school music lessons, attendance at performances, practice and musical progress are course requirements.

VOCAL

CHORALE (6749) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit

Student must be capable of singing one of the SATB parts.
Director approval required.

Chorale is a general entry mixed voice ensemble that performs a minimum of two concerts throughout the year. Emphasis is placed on learning basic vocal hygiene and techniques. The Repertoire includes introductory pieces of varying styles, including choral masterworks. Members are required to be able to match pitch vocally. Chorus requirements include participation at all concerts and rehearsals, two written reflection assignments per year and periodic voice testing.

CONCERT CHOIR (6751) *Open to Grades 10, 11, 12*
40 weeks - 1 credit

Students must audition and be capable of singing one of the SATB parts.
Director's approval and high audition scores are required.

Concert Choir is a mixed voice ensemble of select, auditioned students that performs a minimum of three concerts, as well as other varied community and school performances yearly. Membership will include opportunities to participate in Erie County and NYSSMA festivals. Emphasis will be placed on improving the students' developing skill set and knowledge of differing vocal styles and genres of music. Chorus requirements include participation at all concerts and rehearsals, two written assignments per quarter, and periodic voice testing. All members are required to participate in the Senior High All County Audition held in January. Concert Choir travels on an occasional basis and trip attendance is strongly encouraged.

SWING CHOIR (6757) *Open to Grades 10, 11, 12*
40 weeks - 1/2 credit

Students must audition for this highly selective ensemble.

The Swing Choir is selected by audition and director's approval from those already participating in Concert Choir. Emphasis will be placed on the study of various vocal jazz/swing/rock/pop styles. This group will have multiple performances for school and community functions. The goal of this choir is to become performance-ready and independent from direction. Senior High All County quartet audition in January is required and will be part of the course grade.

ELECTIVES

MUSIC IN OUR LIVES (6765) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit

This course will give the student a general overview of the field of music as an art form, through the study of current musical developments, music & rock history, listening, and an independent instrument study with the choice between the guitar, ukulele, or piano. We will investigate the way music influences each and every one of us in our everyday lives. The student will practice, through directed listening, skills for critical analysis of several styles and genres of music, including current ones, their elements and influences. The student will study the impact of commercialization on music, and investigate current events in music today. Lastly, the student will be offered information on consumer musical concerns such as stereo systems, sound electronics, mp3's, copyright issues with downloaded music, free streaming apps, and an overview of possible careers in music

MUSIC THEORY I (6758) *Open to Grades 10, 11, 12*
40 weeks - 1 credit

Prerequisite: Successful completion of the General Music Courses in the Middle School and/or membership in one of the performing high school groups.
**** Students without previous consistent ensemble or musical experience must have teacher approval.**

This course represents a major part of the requirements for the Regents diploma in the special field of music. Five credits are required for the music sequence - two of these credits must be in Theory. The pupils learn to (1) analyze music, (2) perform music through sight-singing, keyboard and other mediums. The fundamental items stressed are: staffs, scales and key signatures, time values, rhythmic patterns, musical terms, melody, intervals, cadences, basic chords, transposition, and dictation.

MUSIC THEORY II (6759) *Open to Grades 11, 12*
40 weeks – 1 credit

Prerequisite: Student must have successfully completed Music Theory 1

This course consists of an intensive study of chords and their relationship and is directed toward the recognition of sound and sight of all chords. The chief topics covered are: principles and subordinate triads and their inversions in major and minor, dominate seventh chords and their inversions, second inversions of all principal and subordinate chords, dominate ninth chords, and incomplete and complete, secondary seventh chords, modulations, altered and mixed chords. There is an additional focus on student composition.

The following are guidelines for students who are interested in receiving credit for enrollment in a secondary ensemble in the Iroquois High School Music Department:

- Students are selected by invitation only for their superior skills in their discipline.

- Students performing in a lower-level ensemble as well as their primary ensemble are functioning very differently in each. In their primary (upper) ensemble, students are constantly challenged to grow and develop. In this way they gain superior skills. In their secondary ensemble, however, students are spending their time and energy mentoring and musically leading the younger students, largely freshmen, who enter the program with a much lower-functioning skill level. They do this primarily through sharing and displaying their learned skills, as well as a “can-do” attitude they may not have experienced before. They are not musically challenged and fed, as such, but rather are working in a much clearer leadership capacity. In this way they become providers. Peer mentorship and skill sharing, in combination with teacher instruction, goes way farther in developing students than either one or the other. This also directly benefits the music program in that it accelerates the learning curve of the younger students, who develop the required complex motor skills most effectively through peer mentorship and example. Students may earn a full or partial credit for their secondary ensemble. Please see your music performance instructor for any further clarification.

SCIENCE DEPARTMENT

The large variety of course offerings in science allows the student considerable choice in structuring his/her own sequence to meet his/her needs and interests in the area of science. These courses are aligned to the New York State Science Learning Standards. In addition to science content, science and engineering practices will be emphasized as well.

Life Science:

- Regents Life Science: Biology
- AP Biology
- Human Nutrition (.5)
- Human Anatomy and Physiology A (Fall) (.5)*
- Human Anatomy and Physiology B (Spring) (.5)*
- Biomedical Sciences/Medical Interventions (Fall) (.5)
- NUSTEP: Public Health and Epidemiology (Spring) (.5)*
- Marine and Freshwater Biology (.5)

Physical Setting:

- Regents Earth and Space Sciences
- Regents Chemistry
- Regents Physics
- Astronomy/Astrobiology (Spring) (.5)
- Natural Disasters and Meteorology (Fall) (.5)
- NUSTEP Forensic Science (.5)*
- Applied Physical Science
- The Science of Food (Cooking, Processing and Engineering) (.5)
- Science Fact or Fiction: A Study of Modern Science in Media and Literature (.5)
- AP Environmental Science*
- AP Chemistry
- AP Physics C (Mechanics)
- AP Physics C (Electricity and Magnetism)

NOTE: To qualify to take a Regents examination in any of the sciences, a student must complete 1200 minutes of actual hands-on laboratory experience with satisfactory documented laboratory reports.The1200 minutes of laboratory experience must be in addition to the required classroom instruction associated with earning a unit of credit. Additional laboratory requirements, unique to a particular course, are noted in the course descriptions.

* These courses can be taken as Dual Enrollment courses affiliated with local colleges and universities for college credit.

Please consult with your school counselor or science teacher for a more specific pathway/sequence of science courses based upon your interest in:

Environmental Studies and Sustainability Pathway

The Environmental Studies and Sustainability Pathway at Iroquois High School will offer a unique opportunity for students to expand their understanding of environmental concepts, ecosystem stewardship, natural resource sustainability, and their sense of place in today's world.

Example of a Current Pathway Progression

	9th Grade	10th Grade	11th Grade	12th Grade
Core Course Work	Regents Earth and Space Science or Regents Biology	Regents Biology	Regents Chemistry	Regents (or AP) Physics
Electives (Students select courses from the following – recommended that 4 credits of elective coursework be taken through the high school career)	Natural Disasters and Meteorology (1/2 year) Astronomy (1/2 year) Marine Biology and Freshwater Biology (1/2 year) AP Biology (full year) or AP Chemistry (full year) AP Environmental Science (full year) AP Physics (full year)			

Health Science Pathway

Example of a Current Pathway Progression

	9th Grade	10th Grade	11th Grade	12th Grade
Core Course Work	Regents Earth and Space Science or Regents Biology	Regents Biology	Regents Chemistry	Regents (or AP) Physics
Electives (Students select courses from the following – recommended that 4 credits of elective coursework be taken through the high school career)	Anatomy and Physiology A (1/2 year) Anatomy and Physiology B (1/2 year) Biomedical Science/Medical Interventions (1/2 year) NUSTEP Public Health and Epidemiology (1/2 year) NUSTEP Forensics (1/2 year) AP Biology (full year) or AP Chemistry (full year) AP Physics (full year)			

General Recommendation of Course Sequences:

The suggested sequence for a basic Regents Diploma would be as follows:

Grade 9 Earth and Space Sciences
Grade 10 Life Science: Biology
Grade 11 Choice of Applied Physical Science, or
(Select 2) Astronomy/Astrobiology, Environmental Science, Human Anatomy and Physiology A and B, NUSTEP Public Health and Epidemiology, Human Nutrition, Science Fact or Fiction.

The suggested sequence for an Advanced Regents Diploma is as follows:

Earth and Space Sciences
Life Science: Biology
Chemistry
Physics and AP Chemistry, AP Biology and/or AP Environmental
AP Physics C – Mechanics
AP Physics C - Electricity

REGENTS SCIENCE COURSES

EARTH AND SPACE SCIENCES (4310) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit Regents Exam

Regents Earth and Space Sciences is designed for students to explain more in-depth phenomena while building upon the ideas and skills that were taught in Middle School. This course will not only teach core ideas within earth and space sciences, but it will also blend in concepts from the other science disciplines as well. Through the implementation of observation and measurement of the world around us, students will investigate their world through firsthand experiences. Students will gain a better understanding of the Earth, and the world around them, while also appreciating the process of change. Successful completion of a laboratory component, as noted in the introduction to the Science Course offerings, is required for admission to the Regents Examination.

* *Three NYS Designed Investigations, must be completed prior to the written portion of the Regents Examination.* *

The syllabus contains 5 required units:

1. Space Systems
2. History of Earth
3. Earth's Systems
4. Weather & Climate
5. Human Sustainability

LIFE SCIENCE: BIOLOGY (4304) *Open to Grades 9, 10, 11, 12*
40 weeks - 1 credit Regents Exam

Prerequisite: Earth and Space Sciences credit earned

The Life Science: Biology is a course of study that provides an in-depth understanding of living things, and an appreciation of the natural world. It teaches students about organisms, their increasing complexity, and the adaptations of the earth's inhabitants. Students learn proper laboratory techniques, including the use of the microscope, and other various laboratory skills. They are expected to apply concrete concepts to new or unique situations. Successful completion of a laboratory component, as noted in the introduction to the Science Course offerings, including 3 specified State required laboratory experiences, is necessary for admission to the Regents Examination. Areas of study include:

1. The Nature of Life
2. Biochemistry
3. Cells and Cell Functions
4. Reproduction and Development
5. Genetics
6. Evolution
7. Ecology/Human Impact on the Environment
8. Human Anatomy and Physiology

REGENTS CHEMISTRY (4307) *Open to Grades 10, 11, 12*
40 weeks - 1 credit Regents Exam

Prerequisites:

- **Two Laboratory Science Course credits, plus**
- **Algebra and Geometry credits, plus**
- **Passing Algebra and Geometry exams, plus**
  - **Completion of or concurrent enrollment in Trigonometry/Algebra 2 or Algebra 2. (Algebra 2 is strongly recommended)**

This course is designed to present a modern view of chemistry suitable for students following the Regents course of study. Regents Chemistry expects of the student both a greater quantity and quality of learning. The chemistry student examines in–depth concepts and principles of chemical systems. This modern approach to chemistry is geared to open the high school student's mind to man's basic understanding of chemical functions. An important offshoot of this course is that the students learn to think critically and discipline their minds so that they may look at the physical world in an analytical fashion. Concept learning and critical thinking are brought about through problem solving and open-ended laboratory experimentation. Successful completion of a laboratory component, as noted in the introduction to the Science Course offerings, is required for admission to the Regents Examination.

Major topics covered in this course are:

1. Matter and Energy
2. The Gas Laws and Kinetic Theory
3. Atomic Structure
4. Chemical Bonding
5. Periodic Table
6. Solutions and Colligative Properties
7. Mathematics of Chemistry
8. Thermodynamics
9. Kinetics and Equilibrium
10. Acid and Bases
11. Oxidation–Reduction and Electrochemistry
12. Organic Chemistry
13. Nuclear Chemistry

REGENTS PHYSICS (4312) *Open to Grades 11, 12*
40 weeks - 1 credit Regents Exam

Prerequisites:

- **Two Laboratory Science Course credits, plus**
- **Algebra and Geometry credits, plus**
- **Passing Algebra and Geometry exams, plus**
- **Completion of Regents Chemistry prior to taking the course is strongly recommended**

This course presents a modern view of physics with major emphasis placed on the fundamental concepts underlying this physical science. The objectives of this course extend beyond a minimal comprehension of basic facts and principles of physics. The appreciation of the scientific methods, the ability and willingness to change belief and opinions after careful weighing of new evidence and the development of critical thinking are important outcomes of the study in this course. Successful completion of a laboratory component as noted in the introduction to the science course offerings is required for admission to the Regents examination.

This course is divided into six units:

1. Mechanics
2. Motion in a Plane
3. Energy
4. Wave Phenomena
5. Electricity & Magnetism
6. Modern Physics

ADVANCED PLACEMENT COURSES

ADVANCEMENT PLACEMENT BIOLOGY (4305) *Open to Grades 11, 12*
40 weeks – 1 credit AP Exam

Suggested Prerequisites:

- **Life Science: Biology and Chemistry credits earned**
- **Academic Advisement**

The AP Biology course places emphasis upon the principal topics covered in a two-semester college freshman biology course. The aim of this course is to develop an understanding of the following underlying principles:

Big Idea 1: Evolution – the process of evolution drives the diversity and unity of life
Big Idea 2: Cellular Processes (Energy and Communication) – Biological systems utilize free energy and molecular building blocks to grow
Big Idea 3: Genetics and Information Transfer – living systems store, retrieve, transmit and respond to information essential to life processes
Big Idea 4: Interactions – Biological systems interact and these systems and their interactions possess complex properties

All of the topics aim to provide students with the conceptual framework, factual knowledge and analytical skills necessary to deal critically with advancements in the field of biology. This course requires academic discipline and a significant time commitment outside of class to master topics. A strong interest in the biological sciences is helpful. **All students are required to take the Advanced Placement Exam in May.**

ADVANCED PLACEMENT CHEMISTRY (4308) *Open to Grades 11, 12*
40 weeks – 1 credit AP Exam

Suggested Prerequisites:

- **Three Laboratory Science Credits, including Regents Chemistry (Regents Physics strongly recommended, and may be taken concurrently)**
- **Algebra 2 (Pre-Calculus or College/AP Calculus strongly recommended, may be taken concurrently)**
- **Academic Advisement**

The Advanced Placement course in Chemistry meets the objectives of a general Chemistry course at the college level and is designed to build on the foundation learned in Regents Chemistry. Students in such a course will attain a depth of understanding of fundamental and a reasonable competence in dealing with chemical problems. The course is designed to contribute to the development of the student's ability to think clearly and to express his ideas, orally and in writing, with clarity and logic. This course differs from the Regents course with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles and the kind of laboratory work done. Quantitative differences appear in the number of topics tested, the time spent in the course, and the nature and the variety of experiments done in the laboratory. Many new laboratory skills will be learned including competence in the use of data collecting instrumentation. **All students are required to take the Advanced Placement Exam in May.**

ADVANCEMENT PLACEMENT ENVIRONMENTAL SCIENCE (4316)
40 weeks – 1 credit *Open to Grades 10, 11, 12*
AP Exam

Suggested Prerequisites:

- **Earth and Space Sciences, Life Science: Biology**

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. AP Environmental Science involves science as a process of understanding; energy conversions in ecological processes; earth as one interconnected system; humans altering and disrupting natural systems; environmental problems involving cultural, social, economic, ethical and historical connections. **All students are required to take the Advanced Placement Exam in May.**

ADVANCED PLACEMENT PHYSICS C MECHANICS (4333) *Open to Grade 11, 12*
40 weeks - 1 credit AP Exam

Suggested Prerequisites:

- **Three Laboratory Science Credits earned**
- **Algebra 2 and Pre-Calculus credits earned**
- **<u>Concurrently enrolled in AP Calculus or College Calculus 1</u>**
- **Academic Advisement/Teacher Recommendation**
- **Exceptional Students can bypass taking the Regents Physics class and the concurrent enrollment in Calculus with teacher permission. These students will have acknowledged that they will have work during the summer prior to taking AP Physics C Mechanics and that they will have more independent work during the year to learn the Calculus skills necessary.**

Advanced Placement Physics C Mechanics, is a college level, calculus-based physics course. It is equivalent to the course that college students majoring in science and engineering take during their freshmen year. Topics of study include:

- kinematics
- vectors
- forces
- dynamics
- momentum
- energy
- planetary motion
- rotation
- torque
- oscillations
- gravitation

AP Physics C is a lab course which provides opportunities for students to develop skills in: operation of technical equipment; experimental design; data collection, analysis, and interpretation; critical thinking; and problem solving. **<u>All students are required to take the AP Physics C Mechanics exam in May.</u>** ***All AP students in this course are also required to take a school final examination or Regents Physics Exam in June.***

ADVANCED PLACEMENT PHYSICS C ELECTRICITY & MAGNETISM (4334)

40 weeks - 1 credit *Open to Grade 12*

AP Exam

Suggested Prerequisites:

- **Three Laboratory Science Credits earned**
- **Regents Physics Credit earned**
- **Algebra 2 and Pre-Calculus credits earned**
- **Concurrently enrolled in AP Calculus or College Calculus 1**
- **Prior completion or concurrently enrolled in AP Physics C Mechanics**
- **Academic Advisement/Teacher Recommendation**

Advanced Placement Physics C Electricity & Magnetism, is a college level, calculus-based physics course. It is equivalent to the course that college students majoring in science and engineering take during their freshmen year. Topics of study include:

-electricity -magnetism

AP Physics C is a lab course which provides opportunities for students to develop skills in: operation of technical equipment; experimental design; data collection, analysis, and interpretation; critical thinking; and problem solving. **All students are required to take the AP Physics C Electrcity & Magnetism exam in May.**

NOTE: Students enrolled in either AP Chemistry, AP Physics C (Mechanics and/or Electricity & Magnetism, AP Environmental Science or AP Biology will take the advanced placement examination(s) for that particular course. This examination is administered in the month of May. All AP students are also required to take a school final examination in June.

CONCURRENT/DUAL ENROLLMENT COURSES

HUMAN ANATOMY AND PHYSIOLOGY A (4322) *Open to Grades 11, 12*
20 weeks – 1/2 credit *Grade 10 with Teacher Approval*
Offered Fall semester only

Prerequisite: Life Science: Biology credit earned

This course provides a comprehensive study of the anatomy and physiology of the human body. Students will learn how the various organs of the body interact with one another and how they contribute to the overall physiology of the body. (*Note the units of study and body systems in this course)*. Students will design experiments to investigate the structures and functions of the human body. Pathology will also be studied as examples of disruption to normal body homeostasis. This course is designed to be similar to a college level course for students in studying the structures and functions of the human body in scientific detail.

Units by topic: Unit 1 – Orientation, Anatomical Language, and Histology
Unit 2 – Support and Movement
Unit 3 – Integration and Coordination

By the end of this course students will be able to**:**

1. Describe how the human body is studied including the use of specific terminology.
2. Understand the functions of each organ system – how structure related to function.
3. Develop the skills of scientific inquiry while learning concepts in the classroom, lab and field.
4. Students will understand how biological and social concepts related to the content are applied to the health science career pathway.

** It is highly recommended that students enrolled in Human Anatomy and Physiology A also enroll for the Spring Semester of Human Anatomy and Physiology B.

HUMAN ANATOMY AND PHYSIOLOGY B (4325) *Open to Grades 11, 12*
20 weeks – 1/2 credit *Grade 10 with Teacher Approval*
Offered Spring semester only
(College Credit available through Hilbert College. Must complete A & B in the same school year)

Prerequisite: Life Science: Biology credit earned

This course provides a comprehensive study of the anatomy and physiology of the human body. Students will learn how the various organs of the body interact with one another and how they contribute to the overall physiology of the body. (*Note the units of study and body systems in this course. These are different than Human Anatomy and Physiology A)*. Students will design experiments to investigate the structures and functions of the human body. Pathology will also be studied as examples of disruption to normal body homeostasis. This course is designed to be similar to a college level course for students in studying the structures and functions of the human body in scientific detail.

Units by topic: Unit 4 – Transport
Unit 5 – Absorption and Excretion
Unit 6 – Human Life Cycle

By the end of this course students will be able to:

1. Describe how the human body is studied including the use of specific terminology.
2. Understand the functions of each organ system and how structure related to function.
3. Develop the skills of scientific inquiry while learning concepts in the classroom, lab and field.
4. Students will understand how biological and social concepts related to the content are applied to the health science career pathway.

Please note: *Human Anatomy and Physiology A and B are independent of each other. A student may take B before A and be on track with understanding the information. HAPA does NOT need to be a pre-requisite to HAPB if the student is not taking the course for College Credit.*

Students successfully completing Human Anatomy and Physiology A and B will be eligible for Dual Enrollment to earn 4 college credits through Hilbert College.

NUSTEP FORENSICS (4324) *Open to Grades 11, 12*
20 weeks – 1/2 credit (*College Credit available thru Niagara University)*

Prerequisites: Life Science: Biology credit earned
Concurrent Enrollment in Chemistry or Chemistry Credit earned

This interdisciplinary course will investigate the field of forensics from scientific and legal points of view. It is a college-level course which provides students with the opportunity to receive college credit for work done in high school. The course is designed to provide students with an educational experience equivalent to a first-year college level science class. In this course, students will:

- Learn to collect, test, interpret, and analyze data scientifically.
- Conduct lab experiences to examine and test; prints from fingers, lips, teeth, shoes, tires, and eyes; forensic toxicology of drugs, alcohol, poisons; and trace evidence, such as hair, fibers, and paint.
- Forensic serology collection and investigation techniques will be applied to testing of samples of simulated body fluids, such as blood, sweat, saliva, and tears.

This course is offered through Niagara University but is taught at our high school by a certified high school instructor. As a half-year course, students who successfully complete the course can earn one-half of a high school credit. Students who pay the Niagara University tuition and successfully complete the class can earn three college credits.

NUSTEP PUBLIC HEALTH AND EPIDEMIOLOGY (4330) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit Offered Spring semester only
(*College Credit available thru Niagara University)*

Prerequisite: Life Science: Biology credit earned

Public Health is about what makes us sick, what keeps us healthy, and what we can do about it as communities, populations and societies. This course provides an introduction to public health concepts and practice. Topics include historical perspectives on the contributions and roles of public health, an introduction to epidemiological methods, health from a global perspective, an introduction to tools for disease control and health promotion, and issues of health care delivery.

Topics to be covered include:

- What is public health?
- Introduction to Epidemiology - the Basic Science of Public Health
- Biostatistics: Calculating the Public's Health
- Environmental Impacts on Health
- Social, Cultural, and Behavioral (Mental) Factors in Health
- The US Medical Care System

Throughout the course students will:

- Explore and describe complex challenges associated with "public health"
- Analyze multi-dimensional problems associated with public health care delivery
- Effectively communicate complex multi-dimensional challenges associated with public health care delivery while also making recommendations for improved efficiency, based on the synthesis and extrapolation of various sources of scientific information

This course is offered through Niagara University but is taught at our high school by a certified high school instructor. As a half-year course, students who successfully complete the course can earn one-half of a high school credit. Students who pay the Niagara University tuition and successfully complete the class can earn three college credits. It is recommended that students taking the course for College Credit be in Grades 11 and 12.

SCIENCE ELECTIVES

APPLIED PHYSICAL SCIENCE (4311) *Open to Grades 11, 12*
40 weeks – 1 credit Local Exam

Prerequisite: Two Laboratory Course credits, plus Algebra

This course is intended for non-science majors who are interested in a course in physical science. It is for the average student whose interests and goals may be different from those who take the Regents Physics and Regents Chemistry courses. It is an activities-based course which relates scientific principles to issues which are of current national interest and debate. This Applied Physical Science course includes a laboratory component and is designed so that most of the understanding should develop from activities relating to all of the other sciences. Principles of Physics and Chemistry encompass <u>all</u> of the events that occur in the real world.

Major topics covered in this course are:

1. Measurement
2. Classification and Separation of Mixtures
3. Atomic Structure and the Periodic Table
4. Chemistry in the Home
5. Energy and Alternative Technologies
6. Electricity and Magnetism
7. Waves: Sound, Light and Optics
8. Forces and Projectiles

ASTRONOMY/ASTROBIOLOGY (4314) *Open to Grades 9, 10, 11, 12*
20 weeks - 1/2 credit Offered Spring semester only

Prerequisite: Earth and Space Sciences credit

The first quarter of this course is designed to give a non-mathematical survey of the structure of the universe with a major look at our nearest celestial objects. Students will study our own Solar System with emphasis on the Sun, planets, moons, comets and asteroids. Throughout the course, the major observable constellations in the nighttime sky will be studied in detail. A brief look at America's space program, past and future will be discussed.

The second quarter of this course will introduce students to the relatively new field of astrobiology. Astrobiology is the study of the origin, evolution, distribution, and future of life in the universe. This multidisciplinary field encompasses the search for habitable environments in our Solar System and habitable planets outside our Solar System, the search for evidence of prebiotic chemistry, and the evidence for life on Mars. In addition, laboratory and field research into the origins and early evolution of life on Earth, and studies of the potential for life to adapt to challenges on Earth and in space will be studied.

Laboratory sessions and hands-on activities are designed to supplement lectures. Students will be responsible for two major research projects and will have the privilege of attending a field trip to a working space lab with planetarium to help visualize what they are learning in the classroom.

BIOMEDICAL SCIENCES/MEDICAL INTERVENTIONS (4323) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit Offered Fall semester only

Prerequisite: Life Science: Biology credit earned

This course is designed to provide students with the foundation of knowledge that they would need if they are interested in pursuing a career in the health sciences. In this course, students investigate various health conditions, both genetic and infectious in nature. They will study the areas of prevention, diagnosis, and treatment of diseases. In doing so, students will be exposed to a range of topics related to cancer, immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Students will develop solutions for medical conditions, employing the same skill set required in the field of biomedical engineering. Students will also investigate the impact of disease-causing microorganisms on the public health infrastructure and study the medical and pharmaceutical advances on the evolution of these microorganisms. Finally, students will explore the varied career opportunities available within the health and biomedical sciences, conduct research on possible career paths, and identify the skills needed for each one.

HUMAN NUTRITION (4318) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not approved NCAA course*)

Prerequisite: Life Science: Biology and/or Chemistry credit earned

This course is an introduction to human nutrition. It provides students with a basic understanding of the relationships between nutrition, health and disease prevention. Topics covered include history of diet, digestive system and disorders, understanding food labels, macronutrients, micronutrients, sustainability and farming, influences on food choice, advertising, diet and health, and food safety. An individual research project is required.

Note: This is not a cooking class. Proper food handling and storage is discussed but making food in the classroom is limited.

MARINE AND FRESHWATER BIOLOGY(4335) *Open to Grades 10, 11, 12*
20 weeks - 1/2 credit

Prerequisite: Earth and Space Sciences and Life Science: Biology credits earned
Concurrent enrollment or credits earned in Regents Chemistry

This course is designed for students interested in marine biology and studying species found in the oceans and our local Great Lakes ecosystem. Course material will focus on the major groups of organisms found in marine and freshwater habitats, the physical and chemical properties that are important for structuring marine and freshwater communities, and the ecological processes that affect these communities and ecosystems. This will be a laboratory based course in which students are involved in both field studies and classroom investigations, such as the design and maintenance of a sustainable freshwater or marine habitat in class. Students will also be involved in citizen science partnerships with local organizations, including Sea Grant and Buffalo Riverkeeper.

NATURAL DISASTERS and METEOROLOGY (4329) *Open to Grades 9, 10, 11, 12*
20 weeks – 1/2 credit Offered Fall semester only

Prerequisite: Earth and Space Sciences credit earned

Students in this course will review basic atmospheric science principles that influence both daily weather changes and global climate. An emphasis will be placed on extreme weather events and natural disasters. Students will be able to practice and investigate the use of instruments to record weather data including modern satellites (GOES 16) and NEXRAD Radar systems. They will also gain insight into long range modeling using a carbon cycle simulator to determine the factors that may influence long term global climate change. Students will gain experience in media-based weather forecasts by preparing a daily forecast to be included in the daily announcements broadcast at the high school. Perhaps most important, students will learn widely applicable skills including effectively communicating weather forecasts to the public, working collaboratively with classmates to solve modern engineering challenges related to severe weather, and to become empathetic and globally aware citizens; traits that Iroquois High School feels are necessary in all of its graduates.

SCIENCE FACT OR FICTION: A STUDY OF MODERN SCIENCE IN MEDIA AND LITERATURE (4327) *Open to Grades 10, 11, 12*
20 weeks- 1/2 credit

Prerequisites: Earth and Space Sciences credit earned
Completion of/or concurrent enrollment in Life Science: Biology

This interdisciplinary course will provide students with the opportunity to learn about new advancements in science and technology and how these advancements are portrayed to the American public in the media (film) and literature (fiction and non-fiction). An emphasis of this course will be to look at how scientific information is presented to the public and how to evaluate the credibility of this information. In this course, issues in modern science and the media (i.e., artificial intelligence, bringing back extinct species, "growing" meat in the lab, human colonization of other planets, forensic evidence) are examined and discussed.

This course will place an emphasis on learning the science content through lecture and laboratory activities and then analyzing the accuracy of this science as it is brought to the public through television journalists, modern film, and literature. The course will be designed so that students will increase their literacy skills through hands-on science activities, scientific reading selections, writing tasks, and verbal communication through individual and group presentations. This course is designed as a general science course, open to all sophomores, juniors and seniors who have successfully completed at least one Regents Science Course.

Topics of study may include:

- Global Climate Change – Media: *Day After Tomorrow*
- Human Colonization of Another Planet – Media/Literature: *The Martian*
- Genetic Engineering – Media: *GATTACA*
- Cloning – Media/Literature: *Jurassic Park*
- Epidemiology- Media: *Contagion*
- Computer Science and AI – Media: *Blade Runner*

THE SCIENCE OF FOOD (COOKING, PROCESSING, AND ENGINEERING) (4331)
20 weeks- 1/2 credit *(currently not approved NCAA course)* *Open to Grades 10, 11, 12*

Prerequisite: Earth and Space Sciences, Life Science: Biology and Chemistry credit earned, or concurrent enrollment

This course will provide students with an introduction to the chemical and physical properties of food. Students will investigate how cooking techniques influence the taste and texture of food items based on their chemical composition. Students will explore the major processing and preservation principles involved in large-scale food production. Students will understand the relationship between science and technology in the production of various food products. The course will also include a discussion of current issues related to food, health and the environment (i.e. the impact of food allergies on the production of food, safety of GMOs, impact of food choices on the environment).

Topics to be studied may include:

- Food Safety/Large Scale Food Production Techniques
- What does it mean to be Organic?/GM?
- Use of Sugars in Baking
- Caramelization and Candy Chemistry
- Gluten vs. Gluten-Free Foods
- Meat Preparation - Browning, Braising and Brining
- Emulsification/Aeration – (production of dips and dressings, ice cream, meringue)
- Dehydrated Foods/Space Food
- Biological agents used in Food
- Fermentation – Production of Carbonated Beverages, Sauerkraut, Leavened Bread
- Enzymes/Fungi – Cheese Production
- Probiotics/Bacteria – Yogurt

* Note – This class will involve a hands-on cooking component, some of which will need to be done at home

SOCIAL STUDIES

Challenges facing the United States civic institutions, economy, and educational system include low voter participation, demands for a workforce with 21st century skills, and students who are unprepared for the rigor of college work. Restoring the fundamental role of Social Studies in education and re-envisioning the teaching and learning of Social Studies can directly ameliorate these challenges.

Powerful Social Studies instruction not only readies students for college and careers in an increasingly competitive world but prepares our students to be active and engaged citizens in a local and global context. Thus, teaching Social Studies can directly contribute to the revitalization and functioning of American democracy.

Social Studies directly equips students with the foundational knowledge and skills that are necessary to understand and ask important questions in a rapidly changing world. Social Studies can inspire the minds and hearts of young citizens to deeply engage in their local, state, national, and global communities as agents of change. In this way, Social Studies supports the moral imperative of our schools to prepare educated and engaged citizens, which is at the heart of a healthy democracy.

In a world in which postsecondary education is increasingly linked to social mobility, Social Studies empowers young people with the understandings, dispositions, and critical thinking skills that lead to success in college and career. Moreover, Social Studies readies students for today's workplace, where foundational problem-solving, communication and collaboration skills, and autonomy and intellectual flexibility are all necessary in order to excel.

(From the New York State Framework for Social Studies, 2014)

New York State Seal of Civic Readiness

Students who have attained a high level of proficiency in terms of civic knowledge, civic skills, civic mindset, and civic experiences. This distinction shows the student's understanding of a commitment to participatory government, civic responsibility and civic values.

Global History and Geography

In Grades 9 and 10 Social Studies, students will examine Global History and Geography. The two-year sequence is arranged chronologically beginning with the Paleolithic Era and continuing through the present.

GLOBAL HISTORY & GEOGRAPHY I (2202) *Open to Grade 9*
40 weeks - 1 credit Local Exam

Prerequisite: None

Grade 9 begins with the Paleolithic Era and the development of the first civilizations, continues with an examination of classical societies, and traces the expansion of trade networks and their global impact through the year 1750. The course emphasizes the key themes of interactions over time, shifts in political power, and the role of belief systems. Reading, Writing, Literacy, Stimulus Response, Inquiry, and a focus on the Enduring Issues of Social Studies make up the focus of the coursework.

GLOBAL HISTORY & GEOGRAPHY II (2212) *Open to Grade 10*
40 weeks – 1 credit Regents Exam

Prerequisite: Global History & Geography I credit earned

Global History and Geography II: Building Literacy and Analytical Skills Through History: Grade 10 Global History and Geography II offers a comprehensive journey through the pivotal events and themes of world history, beginning with the early 1700s and a snapshot of the world around 1750, and continuing chronologically to the present day. Key themes such as industrialization, nationalism, imperialism, conflict, technological advancements, and global interconnectedness are interwoven throughout the curriculum.

This course places a strong emphasis on developing literacy skills and the critical analysis of historical documents and sources. Students will engage in reading, writing, and evaluating diverse materials to strengthen their ability to interpret evidence, form reasoned arguments and understand multiple perspectives on historical events.

A significant component of the course is exploring Enduring Issues as outlined by the NY Framework for Social Studies. Students will investigate recurring challenges and questions that societies have faced across time and analyze how these issues have shaped our interconnected world. Thematic approaches are used in the final units to help students synthesize their understanding of these enduring issues.

In addition to mastering historical content, students will practice essential social studies skills, including historical and spatial thinking, contextualization, and comparison, as well as all the social studies practices and standards. The course culminates in the required State Comprehensive Exam, which assesses students' knowledge, skills, and ability to critically engage with historical sources. Through this course, students will not only gain a deeper understanding of the past but also hone skills that will prepare them for success in academic and informed citizenship.

ADVANCED PLACEMENT WORLD HISTORY (2204) *Open to Grade 10*
40 weeks – 1 credit Regents & AP Exams

Prerequisite: Global History & Geography I with at least a 90 average credit earned or Teacher Recommendation

AP World History is a college level course that focuses on developing students' abilities to think conceptually about world history from approximately 1100CE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

AP World History is an upper-level history course designed to utilize many tools of historical study. Nightly reading and writing assignments with a heavy emphasis on historical analysis are the expectation, and multiple formative and summative assessments are also a standard of the course. **All students are required to take the AP exam in May.**

The AP World History Exam is required to be given to all students completing AP World History 10 at the conclusion of the 10th grade year. Completion of AP World History and passing the NY State Regents Exam in Global History and Geography fulfills the NY State requirements of Global History and Geography II.

U.S. HISTORY AND GOVERNMENT 11R (2222) *Open to Grade 11*
40 weeks - 1 credit Regents Exam

This is a broad survey class of America's history and development. The course begins with the colonial and constitutional foundations of the United States and explores the government structure and functions provided in the Constitution. The development of the nation and the political, social, and economic factors that led to the challenges our nation faced in the Civil War are addressed. Industrialization, urbanization, and the accompanying problems are examined, along with America's emergence as a world power, the two world wars of the 20th century, and the Cold War. Students explore the expansion of the federal government, evolving social beliefs and behaviors, and the nation's place in an increasingly globalized and interconnected world. Throughout the year, students will be challenged to connect America's past to present-day debates and situation. A State comprehensive exam is given at the end of this course. This exam must be passed to be eligible for a Regents Diploma. To prepare for that exam, students will spend a significant amount of time in class engaged in document analysis activities, making claims and supporting those claims with evidence – both orally and in writing.

ADVANCED PLACEMENT UNITED STATES HISTORY (2251) *Open to Grades 11, 12*
40 weeks – 1 credit Regents & AP Exams

Suggested Prerequisites:

- **An 85+ average in Global History & Geography II**
- **An 85+ on the Global History & Geography Regents Exam**
- **Teacher Recommendation from a Global 10 teacher and Academic Advisement**

AP United States History is an introductory college-level course in U. S. History. The course explores major developments in U.S. History, beginning with an exploration of life in North America before the arrival of Europeans, and ending with a discussion of issues in present-day America. The course is designed to contribute to the development of the student's ability to think clearly and to express viewpoints, both orally and in writing, with clarity, logic and historical depth. Therefore, it will require more reading, writing, analysis and discussion than the Regents U.S. course. While the format includes instructor lectures, the emphasis is on the analysis, and interpretation of documents, events, and long-term historical developments and debates. The course is designed for the student who is deeply interested in the history and development of the United States of America.

This course can be taken in place of the required U.S. History & Government 11R course. <u>All students are required to take the AP exam in May and the U.S, History Regents Exam in June.</u>

THE ECONOMICS of FREE ENTERPRISE in a GLOBAL ECONOMY (2243)
20 weeks –1/2 credit *Open to Grade 12*
(Grade 11 if space is available*)*

Required course for graduation

"The Economics of Free Enterprise in a Global Economy" examines the principles of the United States free market economy in a global context. Students will examine their individual responsibility for managing their personal finances in a global economy. Students will analyze the role of supply and demand in determining the prices individuals and businesses face in the product and factor markets, and the global nature of these markets. Students will study changes to the workforce in the United States and the role of entrepreneurs in our economy, as well as the impact of globalization. Students will explore the challenges facing the United States free market economy in a global environment and various policy-making opportunities available to government, and the central bank, to address these challenges. Content specifications are not included so that the course can adapt to present local, national and global circumstances, allowing teachers to select flexibly from current events to illuminate key ideas and conceptual understandings.

ADVANCED PLACEMENT MACROECONOMICS (2241)
40 weeks - 1 credit *Open to Grade 12*
AP Exam

Suggested Prerequisites:

- **An 85+ average in U.S. History**
- **Teacher Recommendation and Academic Advisement**

Enrollment in this course fulfills the NY State graduation requirement for Economics.

AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. **All students are required to take the AP exam in May.**

GOVERNMENT AND CIVICS (2240) *Open to Grade 12*
20 weeks - 1/2 credit (Grade 11 if space is available, spring semester only)

Required course for graduation

This course examines the foundations of our American democracy, calling attention to the importance of voting and other methods of participation in government and civic life. In order to equip students to navigate in the digital age, the importance of information and the need to be able to access and evaluate information should be integrated throughout the course. All levels of government are encompassed within the course affording the opportunity to utilize local resources. Each unit provides an opportunity for comparison of our governmental system with that of other countries. Content specifications are not included so that the course can adapt to present local, national and global circumstances, allowing teachers to select flexibly from current events to illuminate key ideas and conceptual understandings.

ADVANCED PLACEMENT AMERICAN GOVERNMENT AND POLITICS (2249)
40 weeks – 1 credit *Open to Grade 12*
AP Exam

Suggested Prerequisites:

- **An 85+ average in U.S. History**
- **A minimum of an 85% on the U.S. History Regents exam**
- **Teacher Recommendation and Academic Advisement**

This course is designed to give the above average social studies student a critical perspective on government and politics in the United States today. It will provide an in-depth study of the powers of Congress, the presidency, the bureaucracy, and the Federal Courts. It will examine the functions, structures, and philosophies of certain other types of government and of American political parties. Its major objective will be to provide the student with a learning experience equivalent to that obtained in most college introductory American or comparative government and politics courses.

This course can be taken in lieu of the required Government and Civics course.
It **does not**, however, satisfy the Economics requirement. **All students are required to take the AP exam in May.**

ADVANCED PLACEMENT PSYCHOLOGY (2248) *Open to Grades 11, 12*
40 weeks - 1 credit AP Exam

Suggested Prerequisites:

- **An 85+ average in U.S. History**
- **Teacher Recommendation and Academic Advisement**

The AP Psychology course is designed to allow high school students interested in the subject to pursue college-level studies while still attending high school.

Students are expected to leave the course with a college-level understanding of various approaches to psychology, types of research, facets of human behavior and cognition, and the treatment of various disorders.

Topics covered in the course include:

Biological Basis of Behavior	Social Psychology and Personality
Cognition	Mental and Physical Health
Development and Learning	

The final exam is composed of 75 multiple-choice questions and two essay questions, designed to measure the student's analytical, organizational, and writing skills. **All students are required to take the AP exam in May.**

PSYCHOLOGY (2247) *Open to Grade 12*
20 weeks - 1/2 credit *(Grade 11 if space is available)*
(Grade 10 with teacher permission)

When the interest of man turns toward the actions of human beings, and when the interest takes the form of accurate observation, exact descriptions, and experiments studying human behavior, the science of Psychology emerges.

Psychology is the study of behavior and mental processes. During the semester, human development from birth to death, the personality and normal and abnormal adjustment are examined. Both historical and current psychological theories are used to investigate these topics and students are required to write critical analyses.

HISTORY OF WAR (2255) *Open to Grades 11, 12*
20 weeks - 1/2 credit

History of War teaches you: 1.) To think more strategically about the world and your life decisions. By examining the policy, strategies, operations and tactics of war, the classics of strategic theory, and the application of those strategic analytic skills, across a range of historical case studies, students will gain a better understanding of today's strategy and policy in our 21st century world. 2.) To expose the students to a knowledge that warfare has spurred the growth of essential new technologies, demanded the adoption of complex economic systems, shaped ideology and culture, spread religion, and promoted art and literature. 3.) To develop an understanding of what makes a war just or not. 4.) To apply the lessons learned to your own individual decision-making matrix.

BUFFALO & WESTERN NEW YORK HISTORY (2257) *Open to Grades 11, 12*
20 weeks - 1/2 credit Offered Spring semester only

This course will provide the participant with a broad spectrum of knowledge about the significance of Buffalo and Western New York and the role it has played in our nation's history. As the terminus of the Erie Canal, it was once the gateway to western settlement. With its growth and development as a major rail center it was soon a commercial engine for the economic growth of the United States. Students will gain a greater understanding of the factors that made Buffalo and the Niagara Frontier a leading commercial center. We will look at some of the reasons for Buffalo's economic decline and prospects for Buffalo's renaissance. A field trip to downtown Buffalo and other points on the Niagara Frontier is planned as part of this course. At the conclusion of the course, it is hoped that class participants will have a greater understanding of our history, greater pride as residents of the Niagara Frontier and cause for optimism about our future.

SOCIOLOGY (2246) *Open to Grades 11, 12*
20 weeks - 1/2 credit

Sociology: Exploring Society and Ourselves. Are you curious about what shapes human behavior and society? Sociology is a dynamic elective designed for high school juniors and seniors who want to dive deep into the forces that mold us as individuals and communities. In this course, you'll explore essential topics like culture, socialization, group dynamics, social class, deviance, and the powerful role of social institutions.

Through engaging, project-based learning and collaboration, you'll not only study social behavior but also actively participate in analyzing and understanding it. Expect to work both in and out of the classroom, leveraging technology and real-world experiences to investigate how values, beliefs, and historical events influence who we are and how we interact.

This is your chance to uncover the "why" behind human behavior and gain tools to think critically about the world around you. Whether you're interested in understanding social issues, preparing for future studies, or just learning more about yourself, Sociology will challenge and inspire you to see the world in a new way.

HOLOCAUST, GENOCIDE, AND HUMAN RIGHTS (2245) *Open to Grades 11,12*
20 weeks – 1/2 credit

Genocides occur in stages. Once you learn these stages, genocide fits a pattern that becomes impossible to not recognize. This course sets out to expose students to the issues associated with the concept of Genocide and create the awareness to be Upstanders. We will explore the issues that create, perpetrate, and facilitate genocide though multiple approaches including; history, sociology, psychology, political science, and economics. This class utilizes the numerous social studies and history skills you have developed throughout your academic development. The historical causes and examples of antisemitism through the rise of the Nazi party being the catalyst of the Holocaust will be explored. If you have an interest in the Holocaust or in genocide in general this class will ensure you understand all the nuance surrounding this topic. The class concludes with studying other modern genocides using the recognizable stages discussed

CIVIL DISCOURSE (2239) *NEW *Open to Grade 12*
20 weeks – 1/2 credit (Grade 11 with Teacher Recommendation)

Suggested Prerequisites:

- **An 85+ average in U.S. History**
- **Teacher Recommendation and Academic Advisement**

Students can expect to learn the basic skills of *critical thinking and listening*, *argumentation skills, rhetoric, and practicing respectful communication.* These skills are essential in an ever-diverse world, where polarizing topics are pervasive. The course content will cover the *difference between civil discourse and debate, the role of evidence and facts, cognitive biases, the 1st Amendment, and techniques for finding common ground.*

Objectives:

- Define and understand the principles of civil discourse.
- Learn to distinguish between civil discourse and debate.
- Develop active and empathetic listening skills.
- Analyze and evaluate arguments and counterarguments.
- Improve public speaking, writing, and presentation skills.
- Practice respectful communication in various contexts, including written, oral, and electronic.

ADVANCED PLACEMENT EUROPEAN HISTORY (2253) *Open to Grade 12*
40 weeks- 1 credit AP Exam

The AP European History course is equivalent to an introductory college level course that provides what history teachers, professors and researchers have identified as the main goal of a college level modern European history survey course: learning to analyze and interpret historical evidence to achieve understanding of major developments in European History. *

Students practice the thinking skills used by historians by studying primary and secondary source evidence, analyzing a wide array of historical evidence and perspectives, and expressing historical arguments in writing. The course focuses on topics in modern European history from the mid-15th century through the 21st century.
The AP European History course is heavily dependent on seminar style classes, with strong involvement and participation from class members. **All students are required to take the AP exam in May.**

*Taken from the AP European Course Framework, College Board. Collegeboard.org

TECHNOLOGY

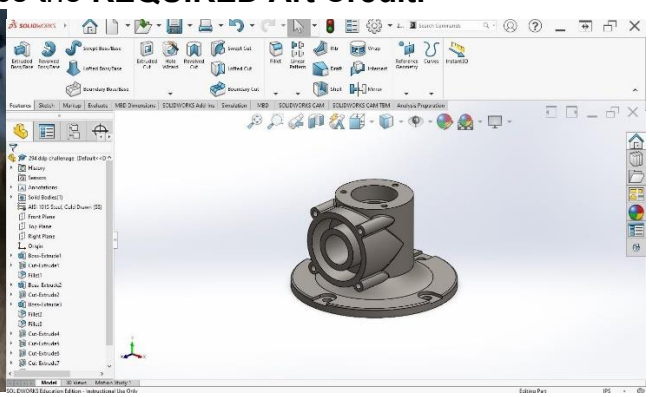
"I know the price of success: dedication, hard work, and an unremitting devotion to the things you want to see happen."

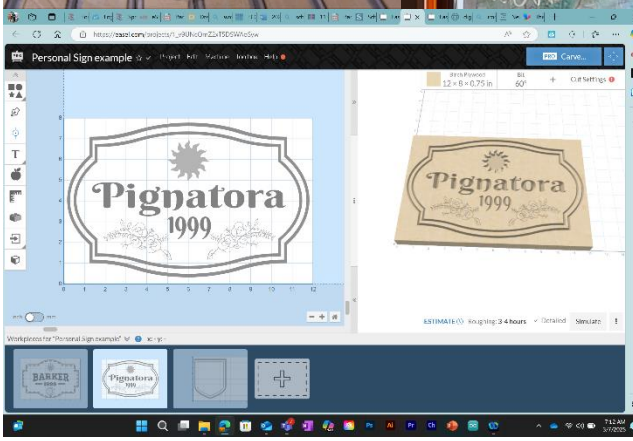
Frank Lloyd Wright

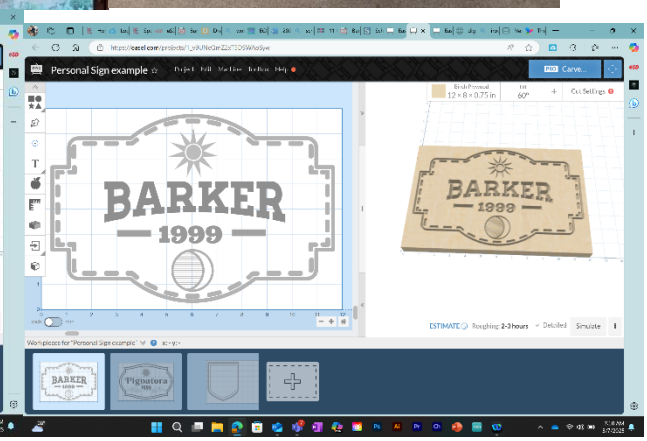
DDP (Design and Drawing for Production) (9141) *Open to Grades 9, 10, 11, 12*
40 weeks – 1 credit (Art or Tech credit) (*currently not NCAA approved*)

Design and Drawing for Production is an entry level course. In DDP, students will be learning and using similar processes that they will not only see in future Engineering Technology courses, but in their future academic and professional careers. Through a variety of different processes and projects the students will utilize every step of the Design Process from addressing a problem, all the way through testing and evaluation. Students will utilize industry-standard 3D modelling software in a laboratory, then produce the final designs in the workshop.

DDP can replace the **REQUIRED Art Credit.**







PRINCIPLES OF ENGINEERING (9142) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit (*currently not NCAA approved*)

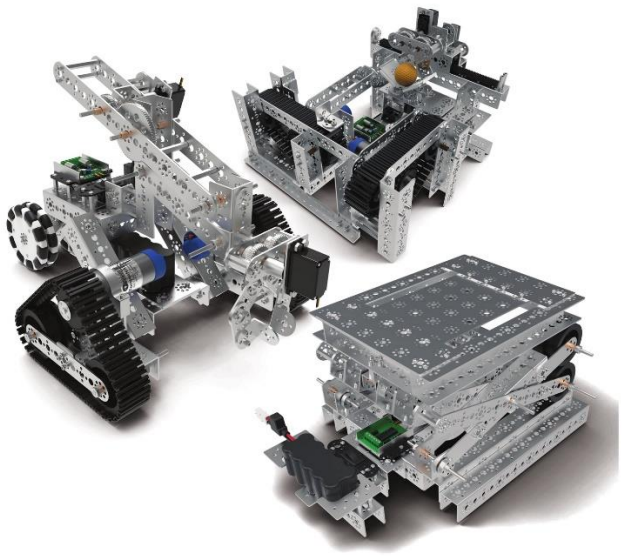
Prerequisite: DDP

This is an integrative, hands-on, laboratory-based course which introduces students to concepts of engineering (ethics, design, modeling, optimization systems, and technology/society interactions). These concepts are applied to solving problems contained in “real world” case studies. Case study abstracts relate to mechanical foundations, and control energy, communications, structural design, designing technology for people with disabilities, and so much more.

STEM ROBOTICS (9140) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not NCAA approved*)

Prerequisite: DDP

In this course, students will be learning the inner workings of automation and robotics which are becoming more and more common in industries around the world. From cars to factories, robotics is something that students will encounter at some point in their lives; be it professional or personal. Students will manufacture, code, operate, test, and evaluate their designs. Ultimately providing students with first-hand knowledge/experience with automation and robotics to set them up for their future academic/professional endeavors.



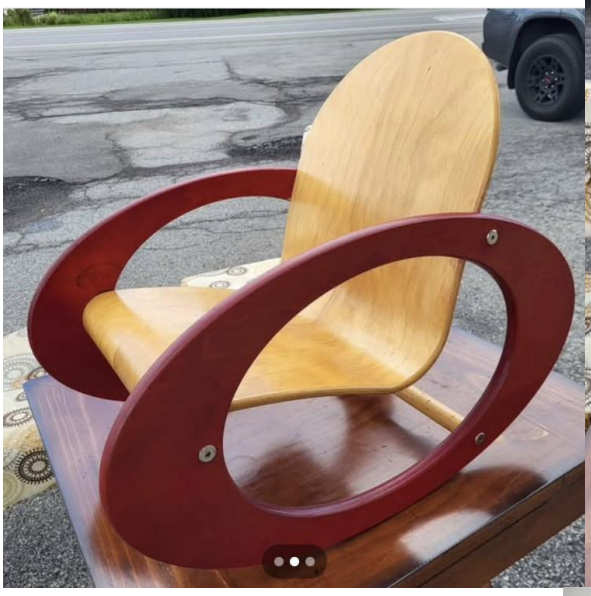
PRODUCTION SYSTEMS (9126) *Open to Grades 10, 11, 12*
20 weeks – 1/2 credit *(currently not NCAA approved*)

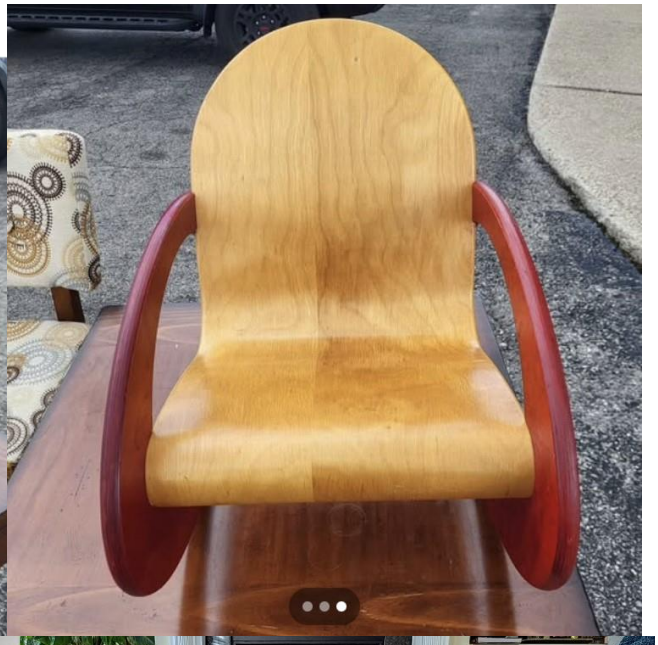
Prerequisite: DDP

This is a half year course where we delve into the Design and Production of Products that emphasize Aesthetic Design, Functionality, Ease of Assembly, and Mass Production Capabilities.

This course provides a hands-on approach to learning intricate systems driving production, construction methods, and quality assurance protocols. Uncovering the profound societal, economic, and environmental impacts of these industries. Join us to discover the pulse of innovation and sustainability shaping our future.

Careers this relates to: Manufacturing Engineer, Construction Manager, Quality Assurance Specialist, Environmental Compliance Officer, Supply Chain Analyst, Sustainable Design Consultant, Operations Manager,
Project Engineer, and more.





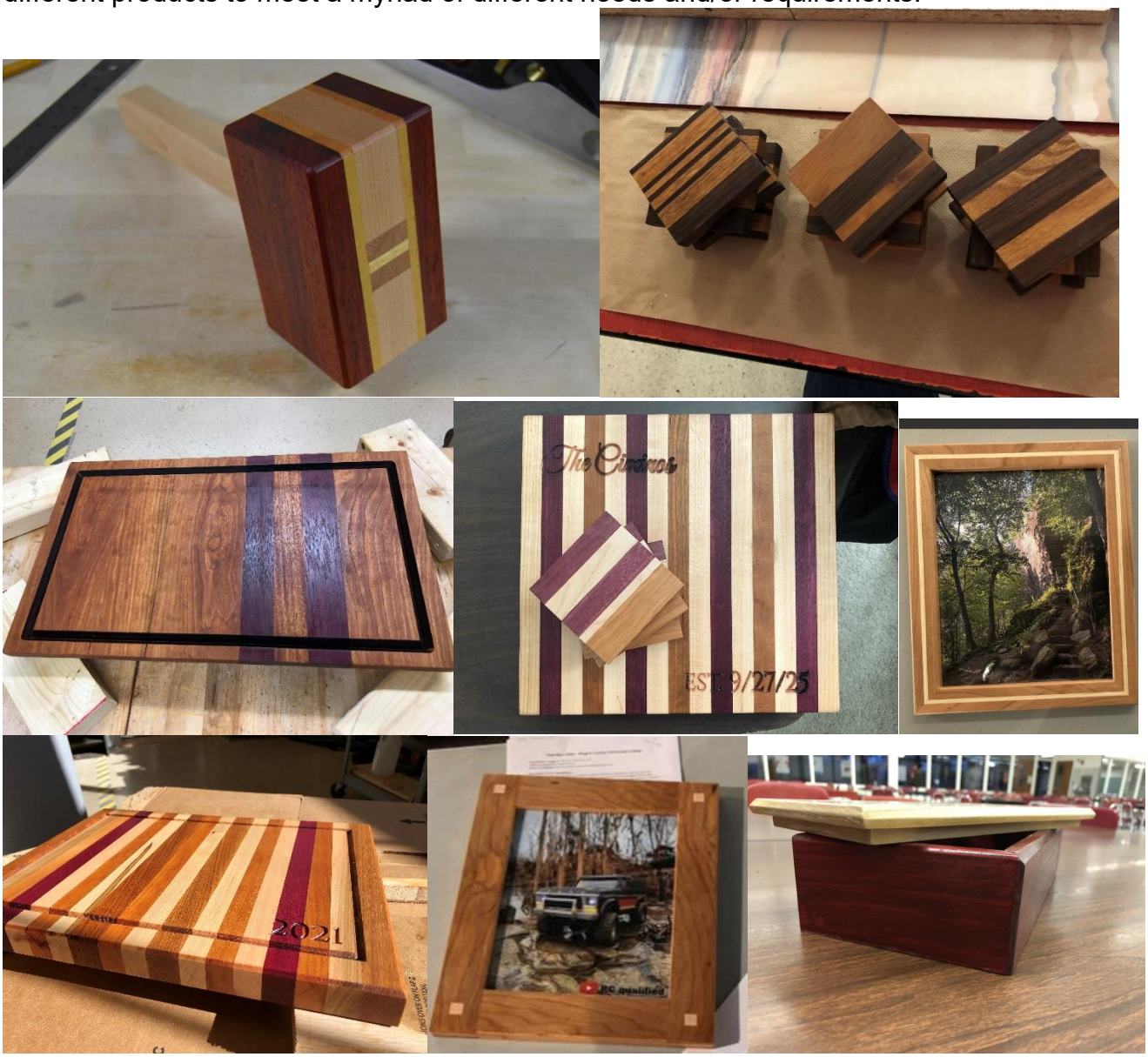
THE HIDDEN LIFE
FOLKLIFE

WOOD TECHNOLOGY (9148) *Open to Grades 10, 11, 12*

20 weeks – 1/2 credit (*currently not NCAA approved)*

Prerequisite: DDP

This course provides students with the skills of producing/manufacturing that are highly sought after in Engineering and all Technical Fields. The students will utilize a variety of different manufacturing and production methods akin to professional manufacturing companies. Working primarily with wood, the students will design and build a variety of different products to meet a myriad of different needs and/or requirements.

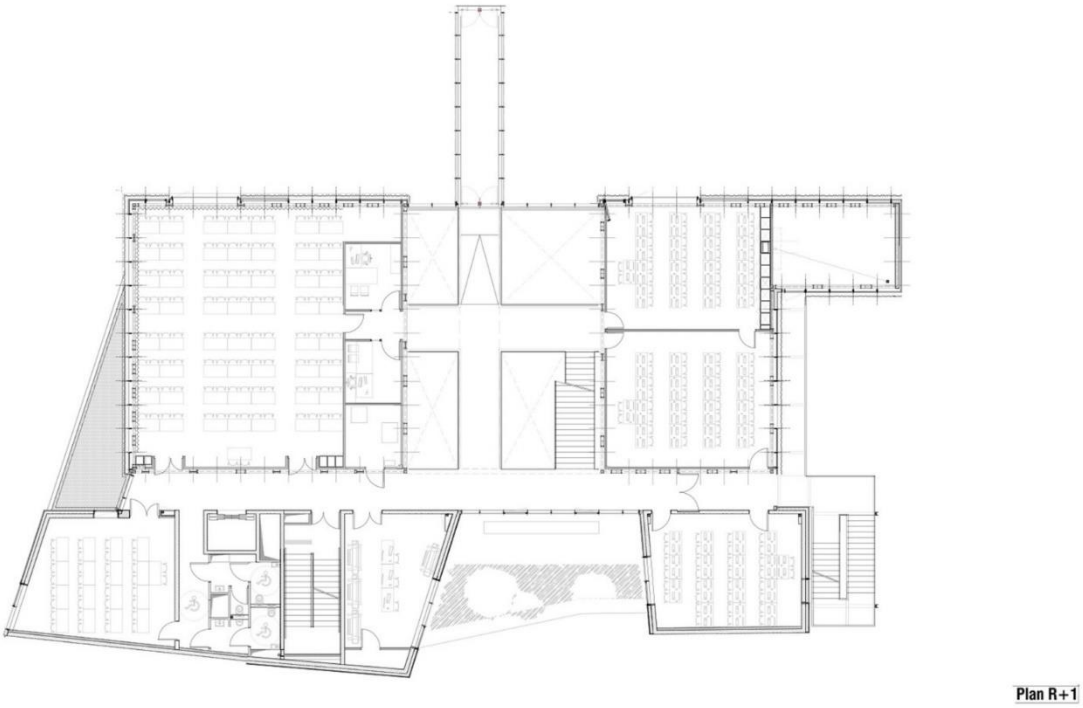


ARCHITECTURE (9149) *NEW *Open to Grades 10, 11, 12*

20 weeks – 1/2 credit (*currently not NCAA approved)*

Prerequisite: DDP

This half-year course encapsulates everything Architecture: Building Design, Construction Techniques, Blueprinting, Codes, and so much more. This course is a hands-on approach to Architecture that will benefit any and all students interested in Architecture, Interior Design, Civil/Structural Engineering, Construction, Engineering Design, and beyond!



DIGITAL MEDIA PRODUCTION A (9081) *Open to Grades 10, 11, 12*
20 weeks - 1/2 credit (*currently not NCAA approved*)

Prerequisite: none

This is a half-year course that provides students with communications experience that correlates with modern production methods. Students will gain firsthand experience working in front of the camera, as well as behind the scenes (producing/editing). From News Broadcasting to short films to promotional ads, students will utilize a variety of different production skills found in all forms of media. Students will learn production methods (equipment needs, prop/outfit requirements, location scouting, proper equipment handling), filming methods (using equipment respectfully/accurately), editing (using Adobe Premiere Pro; an industry-standard editing software). This is a course designed to provide students with the skills necessary to excel in media production at every level.

DIGITAL MEDIA PRODUCTION B (9082) *Open to Grades 10, 11, 12*
20 weeks - 1/2 credit

Prerequisite: Media Production A
College credit with Niagara University- CMS 215 for grades 11 & 12

This semester-length course is designed for high school students with prior experience in video production. The course focuses on advanced techniques and skills necessary for producing professional-grade media. Students will work in groups and operate as production companies, creating various types of media such as news segments, commercials, advertisements, and entertainment content. The course aligns with the New York State (NYS) Math, Science, and Technology (MST) and Career Development and Occupational Studies (CDOS) standards.

Students successfully completing Digital Media Production A and B will be eligible for Dual Enrollment to earn 3 college credits through Niagara University.

CAREER & TECHNICAL EDUCATIONAL (CTE) PROGRAMS

A Career and Technical Education (CTE) provides a great way for high school students to gain valuable hands-on learning experience in an area of interest while at the same time achieving the high academic goals needed to meet the new rigorous learning standards, graduation requirements and to prepare for college. CTE Programs offer:

- An Applied, Integrated & Specialized Curriculum/Work-Based internships
- Certifications and licenses
- The ability to get head start on college.

ORMSBY EDUCATION CENTER (www.e2ccb.org)

PROGRAM OFFERING	MORNING		AFTERNOON	
Automotive Body Repair	Srs.	9272	Jrs.	9271
Automotive Technology		9263		9262
Pre-Eng & Drafting Design		9601		9600
Conservation/Natural Resource Mgmt.		9502		9501
Construction Technology		9291		9290
Cosmetology		9361		9360
Criminal Justice		9375		9376
Culinary Arts/Hospitality Mgmt		9452		9451
Health Careers		9480		9479
Power Equipment Technology		9488		9487
Small Animal Science		9253		9252
Small/Large Animal Science		9251		9250
Sports Conditioning/Exercise Science		9576		9575
Welding & Metal Fabrication		9568		9567
CTE Exploratory/Multi Occupations		9572		9571

ERIE 1 BOCES Career & Technical Education (www.elb.org/cte)

Harkness, **K**enton and **P**otter Career Centers

The availability of Vocational Programs is based on staffing and yearly budget constraints.

Animal Science (**H,K,P**) (9687)
Auto Tech Training (**H,K,P**)(9663)
Aviation Technology (**H**) (9330, 9331)
Baking & Pastry Arts (**H,K**)
Barbering (1 yr) (**H**)
Building Trades (**H,K,P**)
Collision Repair (**H,K,P**)
Cosmetology (**H,K,P**)
Criminal Justice (**H,K,P**)
Culinary Arts (**H,K,P**) (9450, 9449)
Cybersecurity & Networking (**H**)
Dental Lab Tech (**H**) (9372, 9373)
Digital Media (**H**) (9445, 9446)
Early Childhood Education (**H,K**) (9310, 9311)
Electrical Systems (**H,P**) (9412, 9413)
Electronics & Computer Tech (**H**) (9392, 9393)
Engineering & Robotics (**H**) (9602, 9603)
Fashion Design Technology (**H**) (9463, 9464)
Health Careers 1 (**H,K,P**) (9676)
Health Careers 2 (Intro to Nursing) (**H,K,P**) (9477)
Plumbing, Heating & Air Conditioning (**P**)
Sports Science Careers (**K,P**)
Video Production & Recording Arts (**H**) (9680, 9681)
Web Tech & Game Programming (**P**) (9696, 9697)
Welding (**K,P**) (9703, 9704)
New Visions – Connections: Health (9481) (1 yr-seniors)
- Legal Academy (9374) (1 yr-seniors)
- Zoo Wildlife & Conservation (9428) (1 yr-seniors)
- Diesel Technology (NEW)(1 yr-seniors)
- Education Pathways Acad (NEW)(1 yr-seniors)
- Pre-Engineering (9427) (1 yr-seniors)