



North Tonawanda City School District



Secondary Curriculum Handbook 2026-2027

176 Walck Road
North Tonawanda, New York 14120

2026-2027 SECONDARY CURRICULUM HANDBOOK

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Asst. Director of Special Education

From the Superintendent

North Tonawanda High School offers a broad variety of courses during the 2026-2027 school year. It is designed to assist students in planning for their next academic year and the remainder of their high school academic experience taking into account the revised graduation requirements, preparation for post high school study and their career plans. Parents are strongly encouraged to become involved in this scheduling process. Please take the time to thoroughly review and select your courses. With approximately eleven hundred students at NT High School, it is important that parents and students make the most of this process.

To the best of our ability we will provide a schedule that meets the students’ academic goals and allows them to take advantage of the diverse programs we are able to offer. Please keep in mind that through the scheduling process final course offerings may change for a variety of reasons, including state requirements, staffing, budget concerns, and the number of student requests.

Finally, if questions arise or if you need further clarification, please contact your school Student Support Center.

Best wishes for a successful high school experience.

Dr. Jeffrey Jachlewski, *Superintendent*

Secondary Administration & Student Support

NORTH TONAWANDA HIGH SCHOOL
(Grades 9-12)

807-3600

Bradley Rowles, *Principal*
Rachel Wagner, *Assistant Principal*
William Lutey III, *Assistant Principal*

School Counselors

807-3642

Jennifer Kupiec
David Musielak
Jennifer Schultz
Lynn Wright

NORTH TONAWANDA MIDDLE SCHOOL
(Grades 7 – 8)

807-3700

Lauren Miranto, *Principal*
Joseph Pray, *Assistant Principal*

School Counselors

807-3705

Alyssa Hawkins
Angela Vecchio

To all of our parents...

the purpose of this “Secondary Handbook” is to assist you in planning courses that your child may wish to consider.

For current 6th grade parents, Spanish will be the first choice your child will have to make as they enter 7th grade.

The NORTH TONAWANDA CITY SCHOOL DISTRICT

Provides equal opportunity to all students and employees regardless of sex, race, handicap, color, and nationality of ethnic origin.

Further inquiries regarding compliance may be directed to:

Title IX
Sec. 504

Corey Gray
Michael Tambroni

716-807-3516
716-807-3561

Graduation Requirements

(Subject to change by the New York State Board of Regents)

GRADUATION REQUIREMENTS (all of these requirements must be met in order to participate in the graduation ceremony)				
COURSES	Regents Diploma		Advanced Designation	
	Required Courses	Required Exams	Required Courses	Regents English (passing 65 +)
English Language Arts	4	Regents English	4	Regents English
Social Studies	4	Regents Global Studies	4	Regents Global Studies
		Regents U.S. History		Regents U.S. History
Math*	3	Regents Math	3	Regents Math
Science**	3	Regents Science	3	Biology & Physical Science
World Language	1		3	(a) Regents World Language
Art/Music	1		1	
Health	.5		.5	
Sequence Courses/Electives	3.5		1.5	
Physical Education	2		2	
TOTAL Required (minimum)	22		22	22

*Math Test Requirement:

Regents: Algebra

Advanced Regents: Algebra, Geometry, and Algebra 2

*Students are required to have completed one unit of credit in a World Language by graduation or pass the New York State Proficiency Exam given in 8th grade, unless they are special education students who are “exempt” from this requirement by the Committee on Special Education.

[a] For an Advanced Designation Regents Diploma, students may replace the 3 unit World Language requirement with 5 units in either Art, Music, Business, Technology, Technical Drawing, Family and Consumer Sciences, or BOCES.

CREDIT RECOVERY

Students will be permitted to earn recovery credit for a course they have previously taken (seat time satisfied) and unsuccessfully earned course credit. Students will be utilizing a district approved online platform to recover course credit. Students will only be allowed to complete one credit recovery course at a time. Phys. Ed. credit must be completed during an instructional class period. Students may be permitted to earn course credit through enrichment. Enrichment courses include: ELA12, Health, Economics and Government.

Course Weights		2026-2027 School Year and moving forward	
AP	1.07	AP/CAP	1.07
CAP	1.05	REGENTS/ LOCAL	1.00
HONOR	1.05	-	-
REGENTS	1.03	-	-
ALL OTHERS	1.00	-	-

PROMOTION

The following indicated units must be completed for grade level placement.

- Sophomore—5.5 units of credit
- Senior—16.5 units of credit
- Junior—11 units of credit

To be eligible to attend BOCES—students must have completed 8 units of credit.

BONAFIDE STUDENT

Students must carry a minimum of 5.5 units of academic credit including physical education to be a bonafide student of NTHS; 5th year seniors are exempt from this criteria. The recommended course load for a student at NTHS is 6.5 credits.

TESTING

Students must take and earn a 65, on Regents exams in English, Math, Global Studies, US History and Science. Passing scores for special education students taking regents exams may vary based upon grade level. Please see your school counselor if you have any questions.

ADVANCED PLACEMENT (AP) VS. COLLEGE ACCELERATION PROGRAMS (CAP)**AP**

- AP gives students the chance to tackle college-level work while they are still in high school and may earn college credit depending on examination score.
- Courses are free but Exams are \$99
- Credits awarded only when passing AP exam (varies by institution- a score of 3-5)
- Transfers easily from college to college, especially those considering college out of state.
- Students have access to the College Board and Bluebook for preparation and practice.

AP COURSES OFFERED AT NTHS

- Language & Composition
- Literature & Composition
- Calculus
- Biology
- Chemistry
- World History
- European
- Economics
- American Studies
- Government

CAP

- The College Acceleration Program of SUNY Niagara gives students the experience of college-level work and earning college credit while still in high school.
- Discounted Tuition \$86/per credit hour
- Credit awarded when passing course (earned through effort & progress).
- Credits easily transferred to all SUNY schools (local) and many private colleges.
- Appeals to those considering college in state.
- Students have access to SUNY Niagara Resources: ACE tutoring, campus trips, library, gym, student id (discounts).

CAP COURSES OFFERED AT NTHS

- Financial Accounting
- Business Law I
- Human Biology
- Human Biology Lab
- Writing I
- Writing II Intro to Lit
- Creative Writing
- Intermediate French I & II
- Intermediate Spanish I & II
- Healthful Living
- Kinesiology/Exercise Sport
- Precalculus Mathematics
- Introduction to Statistics
- Adventure Education I & II
- General Physics
- Forensics (Buff State)

COLLEGE CREDIT COURSES

COLLEGE ACCELERATION PROGRAM (CAP COURSES ARE ACCEPTED AT NCCC) AND ADVANCED PLACEMENT COURSES (AP COURSES)

Available at the North Tonawanda High School, an additional fee is necessary for college credit.

<u>Title</u>	<u>Available Credits from SUNY Niagara</u>	<u>Title</u>	<u>Available Credits from SUNY Niagara</u>
BUSINESS/COMPUTERS		SCIENCE	
Introduction to Accounting	3	AP Biology	
Business Law	3	AP Chemistry	
Business Ownership	3	Human Biology	
Computer Applications	3	Introduction of Botany/Horticulture	
Sports/Entertainment Marketing	3* Tech Prep no cost to student	Forensics - SUNY Buffalo State University Credit	
		AP Physics	
ENGLISH		SOCIAL STUDIES	
AP English		AP European History	
CAP English	3	AP US History	
WORLD LANGUAGE		AP Government	
French 5	up to 6	AP Economics	
Spanish 5	up to 6	TECHNOLOGY	
MATH		CAD 1	2* Tech Prep no cost to student
AP Calculus		CAD 2	2* Tech Prep no cost to student
College Pre-Calculus	4		
Introduction to Statistics	3		

Student Services

Student services are provided in order that students may fully profit from their school learning experiences. Student services are provided directly to students via the school Student Support Center or indirectly through teachers, parents, administrators, and community agencies.

A TEAM APPROACH

The success of a student services program is dependent upon a team approach of teachers and student services personnel, supported by the school's administrative and supervisory staff. The student services staff includes personnel from the areas of school counseling, health, speech, psychology, social work, special education services and the Family Resource Center. The student services staff has specialized skills which support classroom teachers in providing an effective learning climate.

The framework within which a student services team functions is flexible and broad enough to encompass each professional discipline in an integrated manner. Each offers unique contributions to the total development of the child. The team approach insures that the professional expertise of the staff will be coordinated to provide maximum assistance to the learner.

SCHOOL COUNSELORS

The school counselors work with students individually, in small groups and in classroom settings to promote students' academic, career and social/emotional development. Services include individual and group counseling, academic, college and career planning, course selection, 4 year planning, scheduling, financial aid guidance, grade reporting services, goal setting, interest/aptitude/PSAT/SAT/ACT testing, family referrals and college and scholarship application processing.

They assist students, parents and faculty in dealing with crisis situations, inter-personal concerns and in making referrals to the Student Support Team and community agencies.

The school counselors utilize the Career Development Continuum to help students effectively and realistically plan for their futures. School counselors help students learn more about themselves, make appropriate choices, and access college or post-secondary information. Additional scholarship and career information are provided to students through resources available in the Career Center, online and through community contacts.

Students are encouraged to make appointments as needed as they are encouraged to take responsibility for their choices.

SCHOOL PHYSICIAN

The school physician is employed part-time. He serves as an integral part of the school teaming process, provides student assessments, sports physicals, and consults with the staff. He provides medical direction for planning the health service program and the work of the nurses within the schools.

SCHOOL PSYCHOLOGISTS

School psychologists help ALL children succeed academically, socially, behaviorally, and emotionally. They collaborate with educators, parents, agency personnel and medical

professionals in order to create safe, healthy, and supportive learning environments that strengthen connections between home, school, and the community. They have an advanced graduate degree that emphasizes analysis of education and psychology. Counseling is also provided for a crisis or regular help. Their expert level training promotes extensive preparation in mental health and educational interventions, child development, learning behavior, motivation, curriculum and instruction, assessment, consultation, school law, and especially children with special needs. They are strong advocates for the child and family. They help analyze how a child's brain works to think and solve problems; then they meet with everyone involved to plan a comprehensive program that helps your child succeed in school and in life. A mandatory Consent to Test signed by a parent/guardian is always needed for this analysis.

SCHOOL SOCIAL WORKER

School social workers are part of a multidisciplinary educational team that helps address the needs of students and their families. Students are referred to school social workers by parents, administrators, school counselors and teachers. Students receive assistance to help them overcome issues with self-esteem, social skills, depression, anxiety, anger management, and much more.

Because of their specialized education and training, school social workers are adept to address the social and psychological issues that can block academic progress. Through student screening, individual and group counseling, crisis intervention and prevention programs, they help young people overcome the difficulties in their lives, and as a result, give them a better chance to reach their full academic and personal potential.

FAMILY RESOURCE CENTER

The Family Resource Center is a program designed to meet the needs of families through district programs and is a liaison to outside agencies in the community. The program works to meet the needs of acute student circumstances as well as addressing family emergencies as they arise.

SCHOOL NURSES

School nurses work with children, parents, and other professional members of the student services team. Their responsibilities include the planning and supervision of activities related to health screening programs, emergency care, health appraisal of children, interpretation of health needs, resources, and health records. They make referrals for health counseling and home visits.

SPEECH THERAPISTS

Speech language-therapists work with students who may exhibit communicative needs in the areas of: articulation,

language, stuttering (fluency), voice and hearing loss.

Speech-language therapists provide diagnostic assessments, participate on student support teams, and attend the Committee on Special Education on behalf of their students. Speech therapists work closely with parents, building staff, administrators, community agencies and clinics in order to develop individualized programs to correlate speech-language skill development in relation to the learning process.

SPECIAL EDUCATION TEACHERS

A variety of special education programs ranging from resource rooms, integrated co-teaching, and special classes are available. Special education students receive instruction within the least restricted environment appropriate to their needs.

Special education teachers work closely with other teachers, administrators, related service providers, parents, and community agencies, to develop individualized educational programs for our special education students.

INDIVIDUALIZED LEARNING OPTIONS

High school students in North Tonawanda are encouraged to assume increasing responsibility for their educational experience through the use of individualized learning arrangements. Among the available options are independent study, credit by examination, shadowing, and Career Exploration Internships (CEIP). Credit may be given for programs endorsed by the State Education Department.

Formal arrangements are made among students, parents, teachers, out-of- school supervisors, and administrators. Students may obtain additional information from their school counselor.

ENGLISH AS A NEW LANGUAGE (ENL)

Eligible English Language Learning students receive instruction in English from certified ENL teachers. The amount of service depends on the degree of proficiency the student has in the English language, as determined by the results of the NYSESLAT. The primary focus of the program is to assist the students in developing their listening, speaking, reading, and writing proficiency in the English language.

The ENL teacher assists students in making the cultural transition and works cooperatively with selected content area teachers to reinforce language and content-area skills. Individual cultural and academic needs are taken into consideration.

ADVANCED PLACEMENT

Advanced Placement courses offer our students the opportunity to do college-level work in a high school setting. These courses are available to qualified, academically oriented students in the tenth, eleventh and twelfth grades. Students should refer to the specific course prerequisites listed in

the curriculum guide. The AP courses require a substantial commitment of time and effort by the student.

The Advanced Placement Examinations are administered nationwide in May by the Educational Testing Service, Princeton, New Jersey. Students are advised to check with colleges to which they are applying for verification of credit acceptance.

Students enrolled in Advanced Placement courses are highly encouraged to take the affiliated Advanced Placement Examinations. A fee is required for each examination taken by the student. Fee reduction is available to financially needy students. In accordance with District policy, the non refundable exam fees will be collected during the first marking period. The exams will be administered in North Tonawanda. An AP grade report is sent in early July to each student, school, and, if the student requested it, to his or her college. Courses are offered in Art, English Literature, United States History, European History, Economics, Government, Calculus, Biology, Chemistry and Physics.

HOME TEACHING

Purpose

Home teaching is available to minimize the educational disruption to students in grades 1-12 who are expected to be confined to home or hospital for an extended period due to illness or injury. Home teaching is authorized for one hour per day for students in grades 1-6 and two hours per day for students in grades 7-12. Parents should request home teaching in writing. In addition a note from the attending physician that indicates a specific diagnosis and time frame for which the service is required. Any student who would be likely to return to school within 10 days is not eligible.

EARLY GRADUATION

Requests for early graduation must be submitted in writing to your school counselor before the end of the summer preceding the date of early graduation.

DISTRICT STANDARDIZED TESTS	
Grade	Test
3-8	State English, Math
5 & 8	Local Social Studies
8	Technology, Science
9	Gates-MacGinitie Reading Test

STUDENT COURSE REQUESTS AND SCHEDULES

COURSE DROP/ADD PROCEDURES

The goal of each student's schedule is to provide the best opportunity for academic success. Each student's schedule represents many hours of work by counselors, administrators, and teachers. Student course requests are first based upon graduation requirements, and then sequences and interest in electives. Discussions start in December until April. Students are encouraged to engage in discussion with their parents regarding the choices they made.

Students are given their final course request list in June. Many opportunities are provided for reflection, decision-making, and consultation with the school counselors throughout the year. Therefore, changes in a student schedule for the following year will not be made past the first Friday of the first week of school. Any such requests for schedule changes must be presented to your School Counselor in writing using a Request for Course Change Form.

COURSE CHANGES

Because we schedule our classes based on the course request numbers, course change requests received after June will only be considered if they meet the following criteria:

- Request is received prior by the end of the first week of school.
- Course requests have space availability.
- Requested changes to be with friends will not be considered.
- Students will not drop below the required 5.5 credit minimum.
- Changes in teacher will not be considered.

Due to the loss of instructional continuity and class time, student/parent requested schedule changes/corrections will NOT be allowed after the first Friday of the school year.

SUMMER SCHOOL

Summer School provides remedial and new/advanced courses for middle and high school students in Math, Science, Social Studies, English, Health, Art and Physical Education. The principal of North Tonawanda High School or his designee must sign the Summer School registration form. Any students who are at risk of failing a class or who wishes to attend summer school should discuss options with his/her school counselor in advance, particularly if a class is in jeopardy. Parents are also encouraged to contact their child's counselor to discuss options and to insure that their child is on track to graduate. Summer School information is available in mid June on our website and information is sent home with students in June.

Students who wish to retake exams to raise their grades may do so. Failing students are advised to retake the entire course in summer school.

Note: A parent's signature is required on the registration form, and the fee is paid by the student or their family.

2026-2027 COURSE OFFERINGS

NEW YORK STATE ENDORSED SEALS

NTHS offers 5 career-themed academic seals as part of a comprehensive plan to help students to identify and to nurture potential career interests. These small learning communities, present a focused sequence of courses that are designed to develop an educational foundation relevant to specific career themes. The opportunities described below are intended for students who, at an early age, express a strong interest in a career that is associated with the various academic seal. Students who wish to be considered for participation must apply. See your School Counselor for more details.

SEAL OF BILITERACY

Understanding the importance of multiliteracy and diversity, the NYS Legislature established the New York State Seal of Biliteracy in 2012, with the first set of graduates earning the seal in the 2015-2016 academic year. It emphasizes the importance to enhance academic achievement, provides advantage in intercultural competences, boosts economic competitiveness, improves intergroup relations and leverages inequities in societies.

The Seal of Biliteracy is an award given by a high school, school district or county office of education that recognizes students who have attained a high level of proficiency in two or more world languages (one of which must be English) by high school graduation.

The NYSSB is awarded to students who meet the criteria established by the Board of Regents and who attend schools that voluntarily agree to participate in this program. The NYSSB is affixed to the high school student's diploma and official transcript

SEAL OF CIVIC READINESS

The Seal of Civic Readiness is a formal recognition that a student has attained a high level of proficiency in terms of civic knowledge, civic skills, civic mindset, and civic experiences. The Seal of Civic Readiness distinction on a high school transcript and diploma shows the student's understanding of a commitment to participatory government, civic responsibility, and civic values. Additionally, it demonstrates to universities, colleges, and future employers that the student has completed an action project in civics or social justice.

BUSINESS

MAJOR SEQUENCE

Students may take **five units in Business** to replace the foreign language requirement for an Advanced Regents Diploma; this **MUST** include 21st Century Skills/Financial Literacy.

BUSINESS LAW (CAP)

Students will develop a respect for and understanding of law and legal concepts as it affects their personal, family, and occupational pursuits. Topics include our legal system, criminal and civil procedure, trial procedure, the jury process, contracts, employment, renting/owning property, marriage/divorce, insurance and wills. Current legal issues in cyber law, sports law, and entertainment law are also explored. Participation in Mock Trials throughout the course will enhance the learning and understanding of the legal system.

Credit: 1 unit, optional 3 transferable credits from SUNY Niagara at a reduced rate
Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

BUSINESS OWNERSHIP

Students will have the opportunity to explore the small business environment and related basic economic concepts with focus on the music industry. Computer integration and projects will be used to provide students with the opportunity to develop creative and critical thinking, decision making and communication skills. Multimedia and presentation tools are extensively utilized throughout the course. A major business plan will be created to organize, manage and promote a virtual band.

Credit: 1/2 unit
Examination: Local
Prerequisite: None
Time: 20 weeks (half year)

INTRODUCTION TO ACCOUNTING (CAP)

This is a basic accounting introduction. Every college requires an accounting course for all business, marketing and finance degrees. By taking this course students have the opportunity to learn these skills at the high school level, enabling them to be more successful in their college accounting course. Students learn to keep records for a small business including payroll, checking accounts, journal entries and financial reports such as balance sheets and income statements. This course is strongly recommended for students who will pursue business or accounting degrees and is a prerequisite for our Advanced Accounting course offered to juniors and seniors.

Credit: 1 unit Business or Math/3 credits thru SUNY Niagara
Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Grades 10-12**

ADVANCED ACCOUNTING

This course expands on the introduction to Accounting course. We use project-based learning to utilize financial information to make managerial decisions and to create budgets. Computerized accounting programs are incorporated into the course to simulate the real world experience of a financial professional. This course is strongly recommended for students who will pursue business or accounting degrees. All college business degrees require accounting courses

Credit: 1 unit
Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Intro to Accounting**

BROADCASTING TECHNOLOGY (GRADES 11-12)

In this course students will use digital cameras and computer software to create short video segments. Students will learn video editing, lighting techniques, correct camera frame-ups, storyboard writing and microphone placement. The students will explore software programs relative to the video production industry.

Credit: 1 unit Business
Time: 40 weeks (full year)

Examination: Local

Prerequisite: none

21ST CENTURY SKILLS/FINANCIAL LITERACY

This course is designed to develop skills essential to all occupations and introduce students to the realities of the working world. Simulations are used to help students learn about practice skills in personal banking, budgeting, credit, investing, income taxes and insurance. Learn how to be smart with your money. Students also study career related topics, such as career interests, job searches, resume writing, completion of job applications and preparation for job interviews. Students can test their interests, abilities, strengths and weaknesses relative to real job situations, helping them to make future career decisions. During class, students work on a professional portfolio they may use for career or college applications.

Credit: 1 unit
Time: 40 weeks (full year)

Examination: Local

Prerequisite: None

HOSPITALITY/SPORTS AND ENTERTAINMENT MARKETING

The sports and hospitality industries have enabled the United States to be one of the most successful economies in the world. Tourism is one of America's largest employment sectors. This course will take you on a step-by-step journey through the world of marketing. Students will learn the basic functions of marketing marketing, with an emphasis on the sports and entertainment industry. and how those functions are applied to the hospitality sports and entertainment industries. This project-based course will enable students to apply marketing strategies through simulation activities for development of products and promotions. Print publications and multimedia presentations are a central part of this course. The Microsoft Office Suite will be used extensively throughout the course.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

INTERNATIONAL BUSINESS

This course is designed to make students aware of the global economy in which they live. It also allows them to investigate the need to explore career pathways on an international level. Students research countries and include the historical view, culture, political, legal and economic environment, social and business environment, communications and ethics in a final project. This research will be applied to design and market a product for a global marketplace. Additional emphasis in this course is placed on future job skills for a diverse world. Multicultural etiquette and communication skills will be emphasized throughout the course.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local
Prerequisite: None

COMPUTERS

MICROSOFT COMPUTER APPLICATIONS/PERSONAL KEYBOARDING (CAP)

This class provides students with the computer skills necessary for college. In this hands-on class, the students will learn to use Microsoft Office applications, which include Microsoft Word, Excel, Access and PowerPoint. Students will be able to create professional looking documents using Microsoft Word. Microsoft Excel will be used to create spreadsheets that allow students to enter and format data, calculate data using a variety of methods, and generate and format charts. Access is a database used in many businesses. PowerPoint will be used to create presentations students can use in many of the classes that they are currently taking or will take in the future. In addition to Microsoft computer applications students will learn keyboarding skills to produce personal and business documents. Keyboarding provides a building block to word processing skills that will be utilized in other high school or college classes, future career, and personal use.

Credit: 1 unit, optional 3 transferable credits from SUNY
Niagara at a reduced rate Time: 40 weeks (full year)
Examination: Local
Prerequisite: **None**.

ADVANCED COMPUTER APPLICATIONS

This course provides students the opportunity to learn advanced features of Microsoft Word, Power Point and Excel. At the end of the course, students will be eligible to take the appropriate online exam for MCAS Certification. After successfully passing the online exam, students will obtain their MCAS Certification. MCAS Certification is a globally recognized credential which validates the students' knowledge of Microsoft Office Applications. Individuals with this certification are set apart in today's competitive job market providing more job opportunities with greater earning potential and career advancement.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local/Optionally on line for MCAS Certification
Prerequisite: **Microsoft Computer Applications**

PRINCIPLES OF INFORMATION TECHNOLOGY

It provides an overview of information technology and introduces students to the basics of hardware and software. This course will combine the skills traditionally learned in the Computer Applications course with additional key concepts and explorations, including: programming languages, career opportunities in computer technology/digital communications, digital design (graphic, web, animation, game), computer etiquette/legal concepts. The information learned will be accomplished through integrated projects, guest speakers, enrichment activities, virtual field trips and co teaching.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local/Project
Prerequisite: **None**

AP COMPUTER SCIENCE PRINCIPLES

An introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems - including the internet - work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. This class focuses on computational thinking and is not programming language dependent. This course provides students the opportunity to earn college credit through an AP exam in May.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local/Project
Prerequisite: **None**

COMPUTER SYSTEMS

This class walks students through the intricacies of setting up hardware, installing software, connecting to a network, and connecting to the Internet. Students receive practice assembling and disassembling computer hardware including peripherals, motherboards, FRUs, and connectors. Students also learn troubleshooting techniques. Finally, students get a chance to explore careers for computer system professionals.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local
Prerequisite: **None**

WEB PAGE DESIGN AND MULTIMEDIA

The goal of this course is to give students the knowledge and practical experience of being a web designer and/or graphic designer. It will provide students an all-around ability to understand web development as it applies to personal and professional use. Students in this course will create dynamic graphics and web pages using HTML, CSS and web design software (Adobe Dreamweaver CSS), and will focus on basic design principles of topography, graphics and page layout. Students will also use Flash and Fireworks to create dynamic, interactive multimedia presentations. The integration of business principles and communication skills will be a central focus of the course, developing professional interaction for future employment. Additional multimedia projects will include game design, animation and film production. The development and practicing of presentation skills is an integral part of this course. Project themes will be adapted to student interests and career pathways.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local/Project

COMPUTER PROGRAMMING

Basic, advanced, and AP computer programming is offered in JAVA. These courses may be used as part of the business sequence.

Please note: Microsoft Computer Applications strongly recommended

INTRODUCTION TO COMPUTER SYSTEMS (CAP)

In this class you will familiarize yourself with the information and engineering technology associated with successful content and product creation in the 21st century workplace. During this full year course, you will create effective digital prints for use in social media and advertisements, produce and edit videos with effects, and even work on developing mobile apps utilizing computational thinking and programming. In the process of building 21st century digital products you will also incorporate cutting edge AI Technology, and incorporate strong cybersecurity techniques. Apply the digital skills you acquire to bridge a gap between the digital and physical world as model and animate characters or products in 3D, and 3D Print models of your creation. Participation in this class qualifies you for earning more class credit by using your skills in our in-school internship class, "Jacks of All Trades" where you can use your new Maker skills to create things for our school community.

Grades:9-12

CREDIT: 1 UNIT BUSINESS OR MATH TIME: 40 WEEKS (FULL YEAR)

CAP COMPUTER SCIENCE 1

This first course in programming covers the fundamentals of computer problem solving and programming. Students will be expected to design, create, and debug programs in an integrated development environment. Topics include the program development process, programming methodologies, data types, variables, expressions, assignment, input, output, selection, iteration, functions, parameter passing and ethical issues in computing. This course is usually offered in the fall and spring semester.

Credit: 1 unit Business OR Math or SUNY Niagara CPS 120 (4)

Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Introduction to Computer Systems**

MOBILE APP DEVELOPMENT (CAP)

This course is an introduction to app development for mobile devices. Students will examine different mobile operating systems, their market share, and their software development tools. Students will learn the skills required to design, develop and deploy apps.

Credit: 1 unit or SUNY Niagara CIS 202 (3)

Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Computer Science 1**

ADVANCED PLACEMENT COMPUTER SCIENCE A: (JAVA)

Do you want to cure cancer? Solve climate change? Or maybe build interactive art? AP Computer Science A explores how to use, build, and work with the technologies of tomorrow to help answer some of the biggest questions of today. In this course, you'll design and implement computer programs using a subset of the Java programming language that can be used to develop algorithms, data structures, and solve problems. The course offers the opportunity of earning college credit in a high school setting by providing students with skills needed in taking the AP exam in May. The language is JAVA.

Credit: 1 unit

Time: 40 weeks (full year)

Examination: AP Exam

Prerequisite: **CAP Computer Science 1 and CAP Computer Science 2**

PHYSICALCOMPUTING WITH RASPBERRY PI

Discover the principles of computer science and programming through a series of hands-on projects and challenges. In this course you will learn how to program a Raspberry Pi microcomputer with the Python language, and how to collect and analyze data from the world around us through a network of different sensors. Make actuators (motors, lights, speakers) respond to that sensor data. Gain the skills required for modern careers in the STEM fields, as you employ the same techniques used in data science, robotics, and engineering. Projects include but are not limited to: Robots, drones, computer programs, mini golf obstacles, and other fun hands on projects.

Credit: 1 unit

Time: 40 weeks

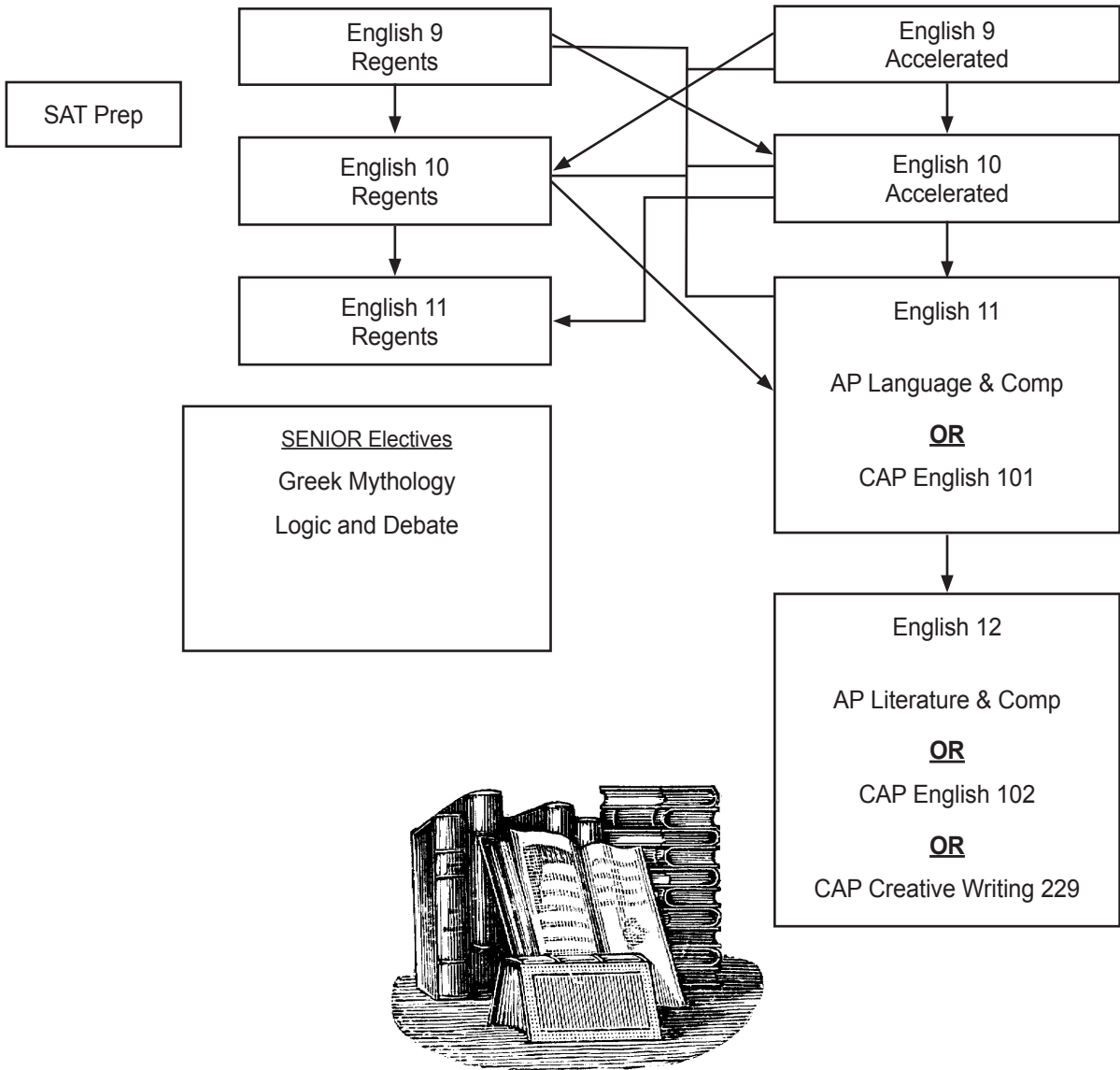
Prerequisite: None



ENGLISH

Four years of English credit are required for graduation from North Tonawanda High School. Each year’s course work evolves from curriculum guides developed by teachers and supervisors modeled after the NYS Common Core Learning Standards stating minimum skill attainment for each grade level. All students must take the Regents Common Core final examination in June of their 11th year of English.

ENGLISH FLOW CHART



REGENTS ENGLISH 9

This skills-based course reflects the NYS Common Core standards for a Regents diploma. The scope/depth of this course is to prepare students to pass the New York State Common Core English exam in June of their 11th year of English. During this course students will improve their skills in the areas of listening, reading and writing, utilizing various genre of literature and nonfiction materials. Students will complete a research assignment focusing on the following skills: source validity, note taking/source carding and organization, and the MLA format for source documentation.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Regents English 8**

REGENTS ENGLISH ACCELERATED 9

This skills-based course reflects the NYS Common Core standards for a Regents diploma. The scope/depth of this course is to prepare students to pass the New York State Common Core English exam in June of their 11th year of English. During this course students will improve their skills in the areas of listening, reading and writing, utilizing various genre of literature and nonfiction materials. Students will complete a research assignment focusing on the following skills: source validity, note taking/source carding and organization, and the MLA format for source documentation. In addition, students will be prepared to meet the needs of English 10 Honors.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Grade 8 Teacher recommendation with Exam grade of 85+ and meeting the criteria for Honors participation.**

REGENTS ENGLISH 10

This course reflects the NYS Common Core standards for a Regents diploma. The scope/depth of this course is to prepare students to pass the New York State Common Core English exam in June of their 11th year of English. During this course students will improve their skills in the areas of listening, reading and writing, utilizing various genre of literature and nonfiction materials. Students will complete a research assignment focusing on integrating sources in the paper and striving for unity with the thesis statement. The final product will include note/source cards, an outline, title page, works cited page, draft and final copy.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Regents English 9**

REGENTS ENGLISH 10 ACCELERATED

This course is aligned with the Next Generation Learning Standards for English Language Arts. The purpose of the Honors 10 curriculum is to offer the student skilled in English an opportunity for enriched work with nonfiction, short stories, novels, drama, and poetry and to prepare them for not only the New York State Regents Examination in English Language Arts (Common Core), but also Advanced Placement opportunities in their Junior and Senior year. Due to the importance of writing, the honors program places greater emphasis on the development of expository writing, extensive essays, and independent research. Textual evidence, and implementation of this evidence in everyday dialogue and writing tasks, will be emphasized. Out of class work in reading and writing will be assigned on a regular basis.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Grade 9 Teacher recommendation with Exam grade of 85+ and meeting the criteria for Honors participation.**

REGENTS ENGLISH 11

This course reflects the NYS Common Core standards for a Regents diploma. The scope/depth of this course is to prepare students to pass the New York State Comprehensive English exam given in June. During this course students will practice and prepare for all reading and writing prompts on the Common Core exam. Students will complete a mandatory research assignment that will include note/source cards, an outline, a title page, a works cited page, and a draft and final copy.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Common Core

Prerequisite: **Regents English 10**

REGENTS ENGLISH 12 (SENIOR COURSE)

This course applies the NYS Common Core Learning Standards, utilizing selected readings from British, American and Multi-cultural literature. This skills-based course focuses on short, targeted writings as well as longer, student-directed researches.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Project-based Assessment

Prerequisite: **Passed the Regents English 11 exam**

AP LANGUAGE & COMPOSITION

This is a college preparatory course designed for the serious English student. In accordance with the College Board's description, students will become critical readers of predominantly nonfiction works. The course strengthens the effectiveness of the student's writing through close reading and frequent practice at applying rhetorical strategies, analyzing information from source texts, and writing arguments. The course culminates in an AP English Language and Composition exam in May.

Credit: 1 unit Time: 40 weeks (full year)
Examination: AP Language and Composition Exam in May;
ELA Common Core Regents Exam in June
Prerequisite: **Teacher recommendation with Exam grade of 85+ and meeting the criteria for Honors participation.**

AP LITERATURE & COMPOSITION*

This is a college preparatory course designed for the serious English student. In accordance with the College Board's description, students will become critical readers of predominantly fiction works presented through diverse genre.

They will read and respond to literature analytically in both oral and written modes via a Socratic approach. The course requires the AP Lit and Comp Exam in May, and culminates in a Final Project in June. Emphasis will be placed on essay response as practice for the final exam.

Credit: 1 unit Time: 40 weeks (full year)
Examination: AP Lit and Comp Exam in May; final course project due in June
Prerequisite: **Teacher recommendation with Exam grade of 85+ and meeting the criteria for Honors participation.**



CAP ENG 101

This course is a SUNY Niagara offering that may result in 3 college credits.

Writing is the key to success; it opens the door for discovery." This course is intended to help students effectively communicate their ideas in writing at a highly developed level. Students will use writing to promote critical thinking.

This course is intended to help the student effectively communicate his/her ideas in writing at a highly developed level. Students will read and study various modes of writing.

Purpose, audience, unity, organization, development, coherence, and style will be examined. As with any advanced skill, the level of difficulty is challenging. Furthermore, writing is a complex process that involves critical thinking. Therefore, students must commit considerable time and thought to improving their reading and writing.

This course is based on writing as a process as well as rhetorical principles, and is designed to develop effective, non-fiction prose. Students will learn the use of documentation within the Modern Language Association (MLA) format. This is a college-level course that allows students to earn 3 college credits through NCCC.

Credit: 1 NTHS credit Time: 40 weeks (full year) This course provides the opportunity to accrue 3 college credits through SUNY Niagara .

Prerequisite: **Teacher recommendation**
Examination: Reflective Essay & Writing Portfolio

CAP ENG 102

This course is a SUNY Niagara offering that may result in 3 college credits.

"The only people who see the bigger picture in story are the ones who aren't afraid to step on a limb where the view is better."

This course focuses on reading closely like an investigator looking for clues in order to present a theoretical interpretation using literary criticism, but not limiting yourself to one possibility. This course reinforces writing skills emphasized in CAP 101, NCCC Writing I, but focuses on the study and analysis of literature. Students will use writing to explore critical thinking and creativity to develop in-depth interpretations of text and original story. Literature Appreciation will be developed through a more mature investigation of literary and poetic writing techniques as well as investigation into the background influences on writers through the use of various types of Literary Criticism.

Credit: 1 NTHS credit Time: 40 weeks full year) This course provides the opportunity to accrue 3 college credits through SUNY Niagara.

Prerequisite: **Passing CAP ENG 101**
Examination: Critical Theory Project & Writing Portfolio

CAP CREATIVE WRITING 229

This course is a SUNY Niagara offering that may result in 3 college credits.

“Art inspires art; therefore, one must study story to create it.”

This course focuses on understanding story and exploring your imagination and creative thinking. This course is a writing workshop that will expose you to different types of creative writing and allow you to experiment to develop your abilities.

Emphasis is on experimentation and practice through daily writing. Writing is a craft, a process, an art. Creative writing not only provides students with an opportunity for self-expression, but also allows students to focus on the craft: diction, dialogue, form, editing, idea generation and other useful writing skills such as characterization, point of view, pace, symbolism, foreshadowing and descriptive writing. Reading and analyzing literature is essential to creating it.

Credit: 1 NTHS credit Time: 40 weeks (full year)) This course provides the opportunity to accrue 3 college credits through SUNY Niagara.

Prerequisite: **Passing CAP ENG 101 and 102**

Examination: Student generated creative component that includes use of research.

GREEK MYTHOLOGY (SENIOR COURSE)

Learn tales of heroism, betrayal and passion in this course. GREEK DRAMA gives an overview of the huge collection of stories and plays explaining the creation of the world, the lives of the gods and goddesses, and how it has all been told to generations throughout the ages. This course is filled with passionate love stories, superhuman tales, mythical beasts and epic adventures. Be ready to read and make in-depth analysis of these tales, as well as create your own myths.

•Offered as a senior elective for credit

Credit: 1 unit Time: 40 weeks (full year)

Examination: In class Final Exam

LOGIC AND DEBATE (Senior course)

This class will provide practice in developing sound and logical arguments, and will give students the opportunity to practice speaking in front of an audience and demonstrating grace under pressure. Students will come away knowing how to synthesize information and deliver it to an audience. Critical thinking skills come in handy when interviewing for jobs, networking for career advancement, conducting meetings and giving presentations. Outside of the working world, having good communication skills is useful in activities as ordinary as meeting new people, as debate helps people learn composure and confidence when speaking with others. All students must be willing to speak in front of their peers as well as argue topics in order to be successful in this class.

*Offered as a senior elective for credit

Credit: 1 unit

Time: 40 weeks (full year)

Examination: In class Final Project

ENGLISH EXTRAS

SAT MATH/ENGLISH PREPARATION

This will be a semester course preparing students for the SAT Examinations. Test taking tips and common questions will be explored. The semester will be divided into two 10-week sessions, one presented by the math department and one by the English department.

Credit: 1/4 unit math Time: 20 weeks (half year)
& 1/4 unit English

Examination: Local

Prerequisite: **Passed both the Integrated Algebra course and Regents exam and passing English 9.**

Preference will be given to 11th and 12th graders

FAMILY & CONSUMER SCIENCES

HIGH SCHOOL

At the high school level, all courses are electives. Students may use **CLOTHING & TEXTILES** and **HOUSING & INTERIOR DESIGN** to fulfill the art requirement for graduation. Students may take five units in Family & Consumer Sciences to replace the third unit required in foreign language for an Advanced Regents Diploma.

FOOD AND NUTRITION/GLOBAL FOODS

***NOTE** – these two courses are linked in the schedule, so that students will take both courses in the same year.

In the first semester of this course, students will study **FOOD & NUTRITION** and how it applies to good health. Other areas covered include food safety and sanitation, meal management, food purchasing, and basic food preparation techniques. Hands on experiences in the foods lab are conducted, using foods from the various food groups.

Second semester (GLOBAL FOODS) includes cultures of countries from around the world along with food traditions common to these areas. This class includes group projects and food preparation labs to enhance the student's knowledge of global cuisine.

Credit: 1 unit
Examination: Local
Prerequisite: None

ADVANCED FOODS

This year long course is for students who have completed the Foods and Nutrition/Global Foods course. Preparing foods for ourselves and families is an essential life skill. As part of this course students will prepare foods each week, either independently or in teams. Topics to include, but not limited to are as follows: Review of safety and sanitation and foundations of food preparation. Food topics: Grains, Fruits, vegetables, meats, eggs, dairy, meat alternatives and other baking topics. Other areas of study will include: food traditions, food trends, sustainable foods, vegan options, seasonings and flavors, and career options in culinary and food production.

Credit: 1 unit
Exam: Local
Prerequisite: **Foods and Nutrition Global Foods**

CLOTHING AND TEXTILES/HOUSING AND INTERIOR DESIGN

***NOTE** – these two courses are linked in the schedule, so that students will take both courses in the same year. This will fulfill the student's ART requirement for graduation.

In the first semester, **CLOTHING & TEXTILES** features the construction of a log cabin quilt and a simple garment. The student will also learn about clothing decisions, fashion, design elements, fibers and fabrics, clothing care, purchasing ready-to-wear, and careers. Students are expected to purchase their own pattern and fabric for the required projects.

In the second semester, **HOUSING & INTERIOR DESIGN** students will investigate how lifestyle, social factors, and stages in the life cycle influence housing decisions. Through hands on experience, students will discover design elements and principles as they relate to architecture and interior design. The student will use software programs to explore the exterior and interior design of homes. Interior design options, such as furniture, wall coverings, window treatments, and floor covering will also be discussed.

Credit: 1 unit
Examination: Local
Prerequisite: None

ADVANCED CLOTHING AND TEXTILES

Students who have completed **CLOTHING AND TEXTILES** can become even more proficient at sewing in this course. Projects include a chevron quilt, a recycling or alteration project and a photo pillow. Students also complete a fashion history project, where they research the influences on fashions of a particular decade.

Credit: 1/2 unit
Examination: Local
Prerequisite: **Clothing and Textiles**

CHILD DEVELOPMENT AND PARENTING

The objective of this course is to prepare students to become better parents in the future. Many aspects of parenting are covered, including parenting skills and styles, personal readiness for parenting, pregnancy and birth, the care and guidance of children of various ages, and meeting family responsibilities. Students may practice their parenting roles with an infant simulator for a weekend.

Credit: 1/2 unit
Examination: Local
Prerequisite: None



WORLD LANGUAGES

GRADUATION REQUIREMENTS

All students must earn 1 High School credit of World Language to graduate. 1 unit of High School credit is awarded to those students who take and pass the NYS Proficiency Exam in World Language at the end of 8th grade. Those students who either do not take or do not pass the Proficiency Exam must take and pass one year of World Language at the High School, unless they are “exempt” from this requirement by the Committee on Special Education.

ADVANCED REGENTS DIPLOMA

In order to obtain an Advanced Regents Diploma, students must pass the NYS Regents Examination in the World Language of their choice. The Regents Exam is administered to students after Level 3.

COLLEGE CREDIT

Opportunities to earn college credit in World Language while still in High School are available to those students who continue their studies through Level 4 or Level 5. See individual course descriptions for details.



SPANISH – 7

The 7th grade World Language course is the first half of Level I. Its purpose is to increase vocabulary and structure necessary for simple communication in the World Language. Topics include: clothing, the body, shopping and transportation.

Credit: No Credit

Time: Every day, full year

Examination: Local

SPANISH – 8

This course presents the second half of Level I and enforces listening, speaking, writing and reading skills introduced in Grade 7.

Credit: 1 unit

Time: 40 weeks (full year)

*Students must pass the course and the final examination to receive the unit of credit.

Examination: Regional Proficiency Exam

Prerequisite: 7th grade World Language

FRENCH, SPANISH – 1

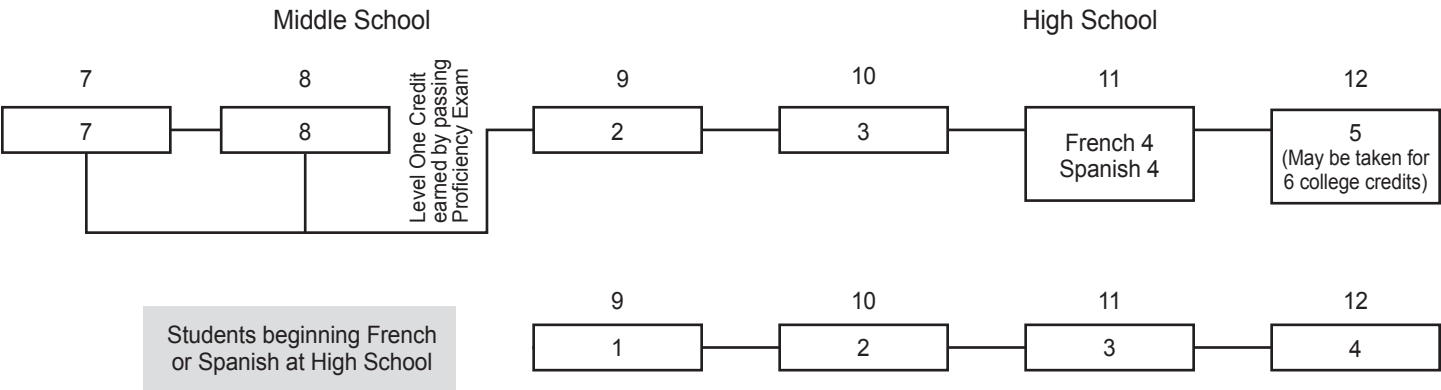
Level I of World Language study introduces listening speaking, writing and reading skills and exposes students to the world culture. Some topics include: family life, foods, recreation, sports and entertainment.

Credit: 1 unit

Time: 40 weeks (full year)

Examination: Local

Prerequisite: None



FRENCH, SPANISH – 2

World Language, Level 2 expands the listening, speaking, writing and reading skills introduced in Level 1. Students will learn to express themselves in regard to daily life, including: health, home, school, shopping, travel, etc. This course will broaden the student's vocabulary and increase his/her comprehensibility. Preparation begins for the NYS Regents Examination, which may be given at the end of the third year.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Level 1 course and pass examination**

FRENCH, SPANISH – 3

An increased level of proficiency will be stressed in the areas of speaking, listening, reading and writing skills at the third level of world Language study. The main goal of the course is to prepare students for the successful completion of the NYS Regents Examination or other appropriate local assessment.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Regents or Local

Prerequisite: **Pass Level 2 course and examination**

FRENCH, SPANISH – 4 (CAP)

This course is designed to increase proficiency in the World Language and to promote an appreciation and understanding of the culture, art and history of the people who speak that language. It will also be taught in the target language and include an overview of grammar topics. The course follows the syllabus for SUNY Niagara French and Spanish 203. Students may opt to take this course for college credit.

Credit: 1 High School unit /and up to 3 hours college credit for students electing to pay SUNY Niagara College Acceleration Program (CAP) tuition (approx.. \$ 86/credit hour)

Time: 40 weeks (full year)

Examination: SUNY Niagara French/Spanish 203 Exam

Prerequisite: **Level 3 course and pass examination**

FRENCH, SPANISH – 5 (CAP)

This program is structured to promote fluency in the spoken and written language, as well as increase reading and listening proficiency. The course follows the syllabus for SUNY Niagara's French and Spanish 204. Students may opt to take this course for college credit.

Credit: 1 High School unit /and up to 3 hours college credit for students electing to pay SUNY Niagara College Acceleration Program (CAP) tuition (approx. \$ 86/credit hour)

Time: 40 weeks (full year)

Examination: SUNY Niagara French/Spanish 204 Exam

Prerequisite: **LEVEL 4 course and pass examination**

F.L.E.S.

This unique program allows advanced high school World Language students the opportunity to teach World Language mini lessons to elementary students in a supervised setting.

Credit: 1/2 unit

Time: 2 days per week (half year)

Examination: None

Prerequisite: **Successful completion of LEVEL 2 and current enrollment in Level 3 or higher.**



PHYSICAL EDUCATION

PHYSICAL EDUCATION (GRADES 9-12)

The Physical Education program is designed to provide students with the skills, knowledge and attitudes necessary to make wellness a priority as well as a commitment for a lifetime. We offer 2 different pathways for students to choose from; in both pathways, students meet the NYS standards and guidelines. In one pathway, students learn the importance of lifelong sports while the other offers the importance of lifetime healthy choices. Both pathways show students how to continue their fitness interests within the community.

Credit: 1/2 unit Time: 20 weeks (equivalent)
Examination: Local

CAP PHYSICAL EDUCATION 1 (CAP PE1)

CAP PE 1 is designed to encourage participants to develop self-confidence, develop trust and commitment to their classmates, develop sportsmanship and learn ways to be a school leader. Students are given multiple opportunities to test themselves and push their limits physically, emotionally, and mentally through exploration of challenges as well as finding ways to attain high levels of performance. Students work on learning and utilizing multiple character traits and expressing

those within the community. Experiences include field trips, trust activities, team building, cooperative games, hands on experiences and guest speakers. This is a SUNY Niagara College Acceleration Program (CAP) course. This course follows the SUNY Niagara syllabus for Adventure Education 1.

Credit: ½ unit Time: 20 weeks (equivalent)
Examination: Local
Prerequisite: Teacher Recommendation

CAP PHYSICAL EDUCATION 2

This course is geared toward students utilizing the skills taught in CAP PE1. Classwork will be more independent than in years past but will also focus on lifelong skills such as communication, teamwork and collaboration. Students will also complete projects that help service the community and help them build connections within the health field. This is a SUNY Niagara College Acceleration Program (CAP) course. This course follows the SUNY Niagara syllabus for Adventure Education 2.

Credit: ½ unit Time: 20 weeks (equivalent)
Examination: Local
Prerequisite: CAP PE 1

HEALTH EDUCATION

HEALTH (GRADES 10)

New York State requires 1/2 unit of health at the High School level. In North Tonawanda most students take this course during their sophomore year. It includes a study of topics such as mental health, sexuality and STD's including AIDS, substance abuse prevention including alcohol and tobacco, communicable diseases, first aid and survival, and nutrition and fitness.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local
Prerequisite: None

HEALTH EDUCATION (CAP)

A comprehensive overview of current health and wellness themes that will assist students in critical thinking and making well informed decisions regarding health related issues. Topic areas include drug misuse and abuse, nutrition and weight management, human sexuality, stress reduction, cancer prevention, cardiovascular disease and others. Successful completion of this course fulfills 1/2 credit of Health for a NYS Regents diploma and qualifies as a SUNY Niagara College Acceleration Program (CAP) course. This course follows the SUNY Niagara syllabus for Healthful Living.

Credit: 3 credits through SUNY Niagara
Time: 20 weeks (half year)

EXERCISE SCIENCE (CAP)

This course is specifically geared for students who have a special interest in athletics and/or who may be interested in pursuing a career in sports medicine, physical therapy or other health related fields. A variety of teaching methods will be utilized including lecture, audiovisual aids, group work, projects, practical lab work and written class work.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local
Prerequisite: None

MATHEMATICS

HIGH SCHOOL MATH

ALL HIGH SCHOOL MATH COURSES REQUIRE A TI-84 CE PLUS GRAPHING CALCULATOR

PRE-ALGEBRA

This non-Regents math class is designed for 9th grade students to prepare for the Algebra Regents course they will take in 10th grade. Topics covered include: problem solving, explaining mathematical reasoning, numbers and operations, equation and inequality solving, graphing, functions, factoring, and solving quadratic equations.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **recommendation of previous teacher; first time freshmen only may be enrolled in this course.**

ALGEBRA REGENTS

Passing the Algebra Regents exam is necessary for a New York State Regents Diploma. Algebra Regents is based on the NYS Next Generation Learning Standards. The major emphases of this course will be seeing structure in expressions, arithmetic with polynomials and rational expressions creating equations, reasoning with equations and inequalities, interpreting functions, and interpreting categorical and quantitative data. Enrollment in Algebra lab may be required.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local exam and Regents exam as graduation requirement

Prerequisite: **recommendation of previous teacher and successful completion of Math 8, or previous enrollment in Pre-Algebra.**

GEOMETRY REGENTS

Geometry Regents is based on the NYS Next Generation standards. Topics covered include: Congruence, Proof, Transformations, Rigid Motions, Area and Volume and Constructions; Similarity and Trigonometry; Extending to Three Dimensions; Connecting Algebra and Geometry through Coordinates; and Circles with and without Coordinates. Enrollment in Geometry lab may be required.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local exam and Regents exam for advanced Regents Diploma consideration

Prerequisite: **Passing both the Algebra Regents course and Regents exam.**

FUNDAMENTAL GEOMETRY

Strengthens algebra and introduces geometry skills necessary for Geometry Regents or Physical Math. The major emphases of the course includes quadrilaterals, area, volume, right triangle trigonometry, equation solving, factoring, exponents, and radicals.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Teacher recommendation and prior enrollment in the Algebra Regents course.**

ALGEBRA 2 REGENTS

Successful completion of this course and the Regents exam will satisfy the math requirement necessary for the NYS Advanced Regents Diploma. Algebra 2 is based on the NYS Next Generation standards that include: solving and analyzing polynomial, rational, radical, exponential, and logarithmic functions, trigonometry, series and sequences, probability, and statistics. Enrollment in lab may be required.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local exam and Regents exam for Advanced Regents Diploma consideration

Prerequisite: **Passing both the Regents Geometry Course and Regents Exam**

SAT MATH/ENGLISH PREPARATION

This will be a semester course preparing students for the SAT Examinations. Test taking tips, major topics, and common questions will be explored. The semester will be divided into two 10-week sessions, one presented by the math department and one by the English department.

Credit: 1/2 unit Time: 20 weeks (half year)

Examination: Local

Prerequisite: Passing both the Algebra Regents course and Regents exam and passing English 9.

PHYSICAL MATH

This course offers 11th graders a hands-on approach to learning trigonometric, geometric, statistical, and algebraic skills. It is an ideal course for the student intending to attend a 2-year college.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Previous enrollment in Algebra Regents. Seniors may enroll by teacher recommendation only.**

INTRODUCTION TO STATISTICS (CAP)

This course is run in conjunction with SUNY Niagara Introduction to Statistics. Topics include descriptive statistics, basic probability rules, conditional probability, probability distributions, estimation of parameters, hypothesis testing using one or two samples, correlation and regression. Students may choose to double up with this and another math class. This course is required for most degrees at 4-year colleges.

Credit: 1 unit /3 credits through SUNY Niagara (per credit fee required for college credit)

Time: 40 weeks (full year)

Examination: Local

Prerequisites: **For both High School and College Credit: Passing Algebra Regents course and Regents exam and at least one other level Regents course or teacher recommendation.**

SENIOR MATH TOPICS

This course provides review of a large range of topics designed to prepare the student for a credit bearing introductory course in college mathematics. Attention will be given to practical mathematical techniques used in both commerce and everyday life. Topics include: operations with real numbers, linear equations and inequalities, operations on polynomials, rational expressions, algebraic fractions, quadratic equations, roots and radicals, descriptive statistics, simple interest, compound interest, loans and payroll, and different types of taxes. It also prepares the student for college courses.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **(Seniors only) who have passed Algebra Regents, Geometry or Physical Math. This course is NOT meant for students who have passed Algebra 2.**

COLLEGE PRE-CALCULUS (CAP)

This course is run in conjunction with SUNY Niagara MAT116 Pre-Calculus Mathematics. Topics include: the Complex Plane, Relations and Functions, topics in solid Geometry, Trigonometry, Trigonometric Form of Complex Numbers, Exponential & Logarithmic Functions, Analytic Trigonometry and Geometry, beginning work with Derivatives as well as many other functions.

Credit: 1 unit/4 credits through SUNY Niagara (per credit fee required for college credit)

Time: 40 weeks (full year)

Examination: Local

Prerequisites: **For High School Credit: Passing the Regents Algebra 2 course and Regents exam. For College Credit: Passing the Regents Algebra 2 Course and earning a minimum grade of 75% on the Regents exam.**

ADVANCED PLACEMENT CALCULUS

This is the Level 5 Advanced Placement AB Course. Topics include: Functions; the derivative; applications of the derivative and integral calculus. In addition to a local exam, students will take the Advanced Placement AB Calculus examination for college placement credit (exam fee required).

Credit: 1 unit/college credit based on exam score and institution Time: 40 weeks (full year)

Examination: Local and AP Calculus exam

Prerequisite: **Passing Pre-Calculus, teacher recommendation**

COMPETITIVE MATHEMATICS

This course is designed to prepare students for various regional mathematics contests such as American Mathematics Competitions (AMC10/12) and the NYS High School Contests. These competitions are held during class and no travel is required. Students in the course will learn competition specific problem-solving techniques and push their limits in mental math as calculators are generally not allowed in competitions. Students enrolled in this course should be motivated to extend the topics discussed in their Regents level math classes. The textbook *The Art of Problem Solving, Vol. 1* by Sandor Lehoczky and Richard Rusczyk will be utilized.

Credit: 1 unit

Examination: None

Prerequisite: **Algebra Regents**



North Tonawanda City School District is achieving excellence in Arts Education through a steadfast commitment to our Fine Arts Department through the Visual/Media and Performing Arts programs. Students are not only able to earn the graduation required credit in Fine Arts, but can explore many avenues under our dedicated Fine Arts expert faculty.

FINE ARTS

MAJOR SEQUENCES IN FINE ARTS

Major sequences are needed for Advanced Regents

MUSIC

5 Units

Students must successfully complete four units of a performing ensemble and one unit in Music Theory

ARTS

5 Units

Students must successfully complete one unit of Studio In Art.

TECHNICAL DRAWING

5 Units

A five-credit sequence in Technical Drawing can be achieved by including DDP and Studio in Art plus three other credits in Technical Drawing.

VISUAL/MEDIA ARTS

ART IN THE HIGH SCHOOL

A minimum of one unit of credit in the Arts is required for high school graduation.

VISUAL ARTS SEQUENCES

A five credit sequence in Visual Arts can be achieved by taking Studio in Art and 4 other full year classes in the arts program.

STUDIO IN ART

This is the introductory and basic art course which explores major areas of art and art history. The principles of art and the elements of design are stressed so that students learn how to create successful artwork. This course includes but is not limited to working in drawing, painting, three-dimensional art, computer generated art and collage. This course also serves as a prerequisite for advanced courses and the continuation of Art Sequence courses.

Credit: 1 unit

Time: 40 weeks, (full year)

Examination: Local

Prerequisite: None

DRAWING AND PAINTING

This course further explores the concepts learned in Studio in Art. Students continue to explore the elements and principles of art and design as they apply to the development of drawing skills. As the course progresses, students will be introduced to various drawing and painting techniques and media along with a variety of art styles and periods. Students will use these techniques to enhance their personal growth and creativity while developing a Visual Arts Portfolio.

Credit: 1 unit

Time: 40 weeks, (full year)

Examination: Local

Prerequisite: **Studio in Art**

ADVANCED DRAWING AND PAINTING

Students will build on skills developed in previous art courses and continue growing both technically and conceptually as artists. Students will become proficient in the use of media such as charcoal, watercolor, and acrylic painting. Experimental and self-study will also be explored and encouraged. The finished works will further the student's understanding of the elements and principles of art and use and application of a variety of media on an advanced level. All work will be included as part of their High School Portfolio.

Credit: 1 Unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Drawing & Painting**

ADVANCED PAINTING

After completion of Drawing and Painting, students will study Advanced Techniques used with a wide variety of different media. This includes painting, collage, and printmaking. Students will develop proficient skill in the use of media such as watercolor, oil paint, and acrylic painting.

Experimental and self-study will also be explored and encouraged. The finished works will further the student's understanding of the principles and elements of art and use and application of a variety of media on an advanced level.

All work will be included in the student's portfolio and may be used as part of the Advanced Placement Portfolio.

Credit: 1 Unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Drawing & Painting**

COMPUTER GRAPHICS

Computer Graphics provides students with the opportunity to explore the ways in which computers can produce visual imagery. This imagery is meant to communicate information and ideas effectively to multiple audiences using a variety of media and formats. Course topics may include principles and elements of design, image creation, image manipulation and image formatting.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: **Studio in Art**

CREATIVE CRAFTS

This course introduces the foundations of design as students investigate a variety of contemporary, historical and multicultural crafts. Examples of activities that students will become involved in may include: textiles, jewelry, painting, printmaking, ceramics, glass and metal.

Credit: 1/2 unit Time: 20 weeks (half year)

Examination: Local

Prerequisite: **None**

DESIGN DRAWING FOR PRODUCTION

The style of presentation for this course evolved from the way industrial, engineering and architectural firms solve their design problems and communicate their solutions. The syllabus emphasizes critical thinking, creative problem-solving and the decision-making processes by requiring the student to examine past solutions, learn technical drawing processes, experience design techniques and become critically active in the evaluation of his/her work and that of others. The students will also be introduced to design problems that real life engineers and architects are involved with. This includes skyscraper design/ technical illustration and site plan development. The course is designed with the New York State Standards in Art and fulfills the 1 credit of Art needed for high school graduation. Some purchase of equipment is required.

A 5 credit sequence in Technical Drawing can be achieved by including DDP and Studio in Art plus three other credits in Technical Drawing.

Time: 40 weeks (full year)

Examination: Local

Prerequisite: None

INDUSTRIAL DRAWING

In general, this course is designed to introduce the student to careers in design and drafting. Such careers include Graphic Design, Architecture, Industrial Design, Landscape Architecture, Civil Engineering and Interior Design. Students will produce drawings and blueprints that would be found in each of these fields.

Credit: 1-unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: Design Drawing for Production

ARCHITECTURE

This class builds upon the drafting and problem-solving skills learned in Design Drawing for Production and introduces the students to the areas of architecture, blueprint development, model building and architectural rendering. Students will develop and work on drawings used in residential housing construction as well as learn model making skills, architectural history and construction methods.

Credit: 1 Unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: Design Drawing for Production

CERAMICS

Using clay as the medium, students will be learning various building techniques associated with Ceramics including Pinch, Coil, Slab and Wheel Thrown. After building, students will learn different ways to glaze and paint their artworks. Art history and criticism will be taught along with clay studio techniques.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local

Prerequisite: Studio in Art

PHOTOJOURNALISM

This course is designed to provide students with beginner to advanced skills in several areas of publication development. Students will learn skills in theme layout, content and coverage, business related information, typography, editorial duties, photography and digital imaging that is essential to photojournalism. Students will gain an understanding of Adobe Photoshop, Publisher and designing the yearbook pages and spreads.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: Studio in Art

PHOTOJOURNALISM II

This course is designed to provide students with the opportunity to master skills learned in Photojournalism I while learning new, more advanced ways of building publication development. Students will advance and master their skills for theme layout, content and coverage, business related information, typography, master editorial duties, photography, and digital imaging that is essential to photojournalism. Students will expand on their knowledge of Adobe Photoshop, Publisher and InDesign, mastering these programs with the skills learned in Photojournalism I.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Photojournalism I**

ANIMATION

This course introduces students to the history of animation, 12 principles of animation, basic concepts of physics and how they apply to animated motion, emotion, and acting, and body mechanics. The goal is to give the students the tools they need to enjoy the process of creating stories and animation them, thus producing their own short films.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Studio in Art**

PERFORMING ARTS

MUSIC AT THE HIGH SCHOOL

PERFORMING ARTS SEQUENCES

A five-unit sequence is available, by successfully completing four credits in a performing ensemble and one credit of music theory.

NTHS INSTRUMENTAL ENSEMBLES

Instrumental Ensembles at North Tonawanda High School provide opportunities to study woodwind, brass and percussion instruments. Each band rehearses daily and performances throughout the year showcase the work accomplished in class. Students are required to attend all performances. Students are encouraged to extend their musical skills outside of school by participating in All-County, NYSSMA Solo Festival, private instrument lessons and extracurricular groups including Pep Band, Jazz Ensemble and Music Pit Orchestra.

CONCERT BAND

Non-Auditioned High School Band

The Concert Band at North Tonawanda High School is a non-auditioned ensemble that brings together student musicians from all grade levels to develop their instrumental and ensemble skills. The group rehearses daily and focuses on refining tone, technique, and musical expression through the study and performance of high-quality concert band literature written for the developing ensemble. In addition to full-band rehearsals, students receive one required lesson lab per calendar week to strengthen technical proficiency on their individual instruments. The Concert Band performs at least three required public concerts to showcase students' growth and musical achievement.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Band 8 and/or Teacher Recommendation**



WIND ENSEMBLE

Advanced Auditioned High School Band

The Wind Ensemble is made up of the top woodwind, brass, and percussion instrumentalist at NTHS. Wind Ensemble rehearses daily and focuses on the development of advanced performance and musicianship skills through the study of Wind Ensemble Literature. The Wind Ensemble draws from contemporary and historical wind works, orchestral transcriptions, as well as standard band literature. Students receive one required lesson lab per calendar week to focus on developing instrument-specific technique. The Wind Ensemble performs at least four required public concerts per year where students demonstrate their knowledge and skills. Placement in this ensemble is based on audition and teacher recommendation.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Audition and Teacher recommendation**



SYMPHONIC BAND

Auditioned High School Band

The Symphonic Band at North Tonawanda High School is an auditioned band that performs intermediate to advanced literature. Students rehearse daily and continue development of tone, technique and musical expression. Students receive one required weekly lesson lab to practice elements of instrument-specific technique. Symphonic Band performs at least three required public concerts per year to showcase student progress.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Audition and Teacher recommendation**

THE HIGH SCHOOL CHORUSES

The Choral Department at the high school prides itself by offering a place for anyone who wants to sing. Our ensembles are both talented and disciplined. Every group rehearses daily and performances throughout the year showcase the work accomplished in class. Students are required to attend all performances. Singers are encouraged to extend their musical skills outside of school by participating in All-County, NYSSMA Solo Festivals, solo competitions, local community ensembles, as well as private voice instruction.

HIGH SCHOOL CHORALE

Non-Auditioned Mixed Chorus

This is the High School's General Chorus and is intended for those students who have no previous experience in choral singing at the high school level or have chosen to participate in a non-auditioned vocal ensemble. All freshman will be placed in Chorale. Students will continue to develop knowledge in song styles, forms, composers, vocal techniques, sight-reading, and gain a solid foundation in vocal music. Voice lessons are available for students who choose to be involved in outside vocal experiences such as All-County and NYSSMA. Members of Chorale will demonstrate their developing knowledge and skills in choral singing at required public performances, at least twice per year.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **None**



TREBLE TONES

Advanced Auditioned Treble Chorus

Members of Treble Tones must demonstrate a higher degree of choral singing skills, techniques, understandings, and a sense of dedication and commitment to be considered for the group as well as remain a member. Students will continue to develop knowledge in song styles, forms, composers, vocal techniques, sight-reading, and gain a solid foundation in vocal music. Students receive a required weekly lesson "lab" which focuses on the development of technique specific to their voice part. Members will demonstrate their knowledge and skill in choral singing at required public performances, at least three times per year. Membership is determined by audition and teacher recommendation.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Audition and Teacher recommendation**

JACKS AND JILLS

Advanced Auditioned Treble Chorus

This mixed ensemble is intended for an advanced choral singer. Students must show a solid foundation in vocal music as well as all aspects of High School Chorus Level 1 to gain membership in this group. The ensemble rehearses daily with a required weekly music lesson "lab" where students learn the skills necessary to excel at vocal performance. Members of Jacks and Jills must demonstrate a higher degree of choral singing skills, techniques, understandings, and a sense of dedication and commitment to be considered for the group as well as remain a member. Jacks and Jills will demonstrate their developing knowledge of, understanding, and skill in choral singing at public performances, at least three times per year. Students are required to attend all performances. Membership is determined by audition and teacher recommendation.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Audition and Teacher recommendation**

MUSIC THEORY I

This course is an introduction to the mechanics of music. Students will learn the basic principles of music composition through the study of classical and contemporary music literature. This class will focus on music notation reading and aural skills and is recommended for students who are planning advanced studies in music. This course is required for the major sequence in music.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Teacher Recommendation and Co-Enrollment in a Performing Ensemble**

MUSIC THEORY II

This course is a continuation of Music Theory I. Advanced composition and analysis will be emphasized. Also covered will be orchestration, music history, aural skills.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Music Theory I**

CAP MUSIC THEORY III

A continuation of Theory II, with an emphasis on advanced composition and analysis. Students have the option to take the Advanced Placement Music Theory Exam.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Music Theory II**

MUSIC IN OUR LIVES

This course will fulfill part of the high school Fine Arts credit necessary for graduation. The course will develop an awareness and appreciation of music through the study of performers, composers, and major musical works in various different styles of music. Students study the role of music in

American culture and the impact of the Fine Arts in Western and non-Western cultures. A large portion of the course deals with developing listening skills and analysis.

Credit: $\frac{1}{2}$ unit

Time: 20 weeks (half year)

Examination: Local

Prerequisite: None



SCIENCE

SCIENCE AT THE HIGH SCHOOL

Regents Diploma - 3 science credits representing both the Living Environment and the Physical Setting with one passing Regents exam score.

Advanced Designation Regents Diploma - 3 science credits representing both the Living Environment and the Physical Setting, with a passing Regents exam grades in each.

CORE COURSES (REGENT'S COURSES)

- Life Science: Biology
- Earth and Space Sciences
- The Physical Science: Chemistry
- The Physical Science: Physics

ADVANCED PLACEMENT COURSES (COLLEGE CREDIT COURSES)

- AP Biology
- AP Chemistry

ELECTIVE COURSES (Local Courses)

- Introduction to Botany/Horticulture
- (CAP)
- Environmental Issues
- General Physics (CAP)
- Human and Natural Disasters
- Forensics (CAP)
- Human Biology (CAP)

LIFE SCIENCE: BIOLOGY

This course is designed to increase the students' understanding of the living world in which they live. Students will be able to explain and contrast important biological concepts such as the living cell, human physiology, reproduction, genetics, and ecology. Students will become adept at generating and running scientific experiments, and must have successfully completed 30 laboratory experiences (1200 minutes) with satisfactory reports on file to be eligible to take the Regents exam.

Credit: 1 unit Time: 40 weeks (full year)
Examination: NYS Regents 8 meetings/6 day cycle
Prerequisite: **Science 8**

EARTH AND SPACE SCIENCES

This course presents a modern view of Earth Science, including the study of Astronomy, Meteorology, Climatology, and Geology. Major concepts studied include: the conservation of mass-energy; the sun earth energy system; dynamic equilibrium; cyclic changes; the principle of uniformitarianism—the present is the key to the past and future. Critical to understanding science concepts is the use of scientific inquiry to develop explanations of the natural phenomena. Students must have successfully completed 30 laboratory experiences (1200 minutes) with satisfactory reports on file to be eligible to take the Regents exam.

Credit: 1 unit Time: 40 weeks, full year,
Examination: NYS Regents 8 meetings/6 day cycle
Prerequisite: **Science 8**

THE PHYSICAL SCIENCE: CHEMISTRY

This NYS Regents course deals with the study of matter and its properties. The thrust of the course is the hands-on investigations approach to learning through laboratory experiences. The student will spend an additional 2 days per 6 day cycle in the laboratory. The course is primarily intended for college bound students. There is a minimum of 30 lab periods required to be able to write the final exam in June.

Credit: 1 unit Time: 40 weeks (full year)
Examination: NYS Regents
Prerequisite: **Minimum 80% course average and Regents Examination Scores in Living Environment Biology, Algebra and the Physical Setting of Earth Science (if taken).**

THE PHYSICAL SCIENCE: PHYSICS

This course is open to any student who meets the prerequisite. This course is a survey course of many physics topics including Mechanics, Waves, Electricity and Magnetism. The focus of the class is on problem solving skills, personal responsibility and development of healthy work habits. Students spend an extra 2 days per 6 day cycle in the laboratory.

Credit: 1 unit Time: 40 weeks (full year)
Examination: NYS Regents
Requirement: **One year of Integrated Algebra**

AP BIOLOGY

AP Biology is a college level course designed for the science-oriented student who has demonstrated exceptional ability in previous science courses. Students will take both the Advanced Placement and local exam. The course goes into great detail on concepts such as evolution, biological systems, genetics and ecology. AP Biology is a lab based course where students do a great deal of formulating their own questions and then developing a lab to answer those questions.

Credit: 1 unit/possible college credit

Time: 40 weeks (full year)

Examination: AP and local exam/project

Prerequisite: **Living Environment, Regents Chemistry and teacher recommendation**

HUMAN BIOLOGY (CAP)

This course is a College Acceleration Program (CAP) course that aligns with SUNY Niagara's BIO 117. A survey course designed to meet the needs of a college introductory course in anatomy and physiology of the human body. Those preparing for a health oriented career or desire basic knowledge in structure and function of the human body will find this course both interesting and stimulating. Topics may include the cell, DNA, the body as a whole, biomechanics, integration and control, exchange and transport, metabolism and reproduction. All students will earn high school credit for the course and have the option to earn 4 college credits.

Credit: 1 High School unit/4 SUNY Niagara credits

Time: 40 weeks (full year)

Examination: Local exam

Prerequisite: Passing of **LIVING ENVIRONMENT** course and one (1) **PHYSICAL SETTING Science and/or teacher recommendation**

FORENSICS (CAP)

Introduces students to different aspects of forensic science, which involve all areas of science, with an emphasis on critical thinking and complex reasoning. Topics include: observation/evidence collection techniques, trace evidence analysis, hair and fiber analysis, determining the cause and time of death, fingerprinting, DNA evidence, toxicology, hand writing analysis, and blood spatter analysis. In addition to classroom instruction, there is a separate laboratory component to the course which will include case studies and an opportunity to perform many of the laboratory techniques that are discussed in class.

Credit: 1 unit/3 SUNY Buffalo State University credits

Time: 40 weeks (full year)

Examination: Local Exam

Prerequisite: Passing **LIVING ENVIRONMENT** and one (1) **PHYSICAL SETTING Science and/or teacher recommendation**

AP CHEMISTRY

This is a college level course designed for students who have demonstrated exceptional ability in previous science courses, where they investigate the fundamental concepts of chemistry in great depth. Labs and related activities will require precision and accuracy.

Credit: 1 unit

Time: 40 weeks (full year)

Examination: AP and Final Project

Prerequisite: **Honors Regents Chemistry and Regents Algebra 2/Trigonometry, and teacher recommendation**

ENVIRONMENTAL ISSUES

This is a full year science elective focusing on issues surrounding current science policy, conservation, and ecology. Units of study include Biodiversity, Populations, Energy Sources, Urbanization, Global Warming, and Pollution.

Credit: 1 unit

Time: 40 weeks (full year)

Examination: Local Exam

Prerequisite: **Living Environment**

INTRODUCTION TO BOTANY/HORTICULTURE (CAP)

Botany is a full year science elective for students interested in studying plants. The units of study are Plant Diversity, Composting & Trees, Anatomy & Physiology, Food, Beverage & Health, Reproduction and Ecology. Students will use the grounds of the high school campus to identify wild flowers and trees and to learn the basics of composting. Botany is designed to be a hands-on course incorporating many projects and laboratory activities. This course may also be taken as a CAP course.

The College Acceleration Program (CAP) course aligns with SUNY Niagara's HRT 100. Students may take this course for 3 college credits (tuition paid to NCCC at a reduced rate) and for high school credit.

Credit: 1 unit/3 SUNY Niagara credit

Time: 40 weeks (full year)

Examination: Final Project

Prerequisite: **Living Environment** and One (1) **Physical Setting Science and/or teacher recommendation**

HUMAN AND NATURAL DISASTERS

This full year elective covers such topics as: earthquakes, volcanic eruptions, tsunamis, hurricanes, meteorite impacts, and global climate change. It explores the physical causes, effects and social consequences of such events. Recent natural disasters are examined in depth to analyze the processes responsible for them and how that understanding translates into public policy and governmental response, including that of first responders.

Credit: 1 unit

Time: 40 weeks (full year)

Examination: Local exam

Prerequisite: Passing **LIVING ENVIRONMENT** and **EARTH SCIENCE** course and/or teacher recommendation

GENERAL PHYSICS (CAP)

CAP General Physics is an algebra-based two semester physics survey. This course is open to first and second year physics students and mirrors PHY 131-132 offered at SUNY Niagara. Topics covered include: vectors, forces, acceleration, linear and circular motion, gravitation, energy, momentum, fluids, gases, liquids, solids, thermodynamics, wave motion, light, optics, electricity, magnetism, atomic and nuclear physics. Students have the opportunity to earn up to 8 college credits through SUNY Niagara with paid tuition and successful completion of both semesters.

Credit: 1 unit Time: 40 weeks (full year)

Examination: Local Exam

Prerequisite: **Minimum Geometry but Algebra II is recommended**

SOCIAL STUDIES

Students must earn four units of Social Studies at the high school for graduation. The fourth unit consists of one semester of Participation in Government and one semester of Economics. Students must pass competency tests in Global History, and U.S. History and Government in order to be eligible for a diploma. A five-unit sequence in Social Studies is also possible by taking the two additional electives of Psychology and Sociology.

GLOBAL HISTORY & GEOGRAPHY I REGENTS

This is the first half of the required NYS course. It is a chronological study of Global History and Geography beginning with 4000 B.C. and ending during the 1700's. Students will use a variety of skills to develop an understanding of ancient civilization of the world through to the age of absolutism of the 1700's. All major parts of the world will be included in this chronological study.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

GLOBAL HISTORY & GEOGRAPHY II REGENTS

This is the second half of the required NYS course. It is a chronological study of Global History and Geography from the 1700's to the present. Students will use a variety of skills to develop an understanding of Global topics such as the Age of Revolutions; Industrialism and Imperialism; the World at War and; Global connections and Interactions; the World since 1945. All major parts of the world will be included in this chronological study.

Credit: 1 unit Time 40 weeks (full year)
Examination: Regents
Prerequisite: **Passing Global History & Geography I**

U.S. HISTORY/GOVERNMENT REGENTS

This course is a required course of study for all high school graduates. This course, through a chronological approach, emphasizes major concepts as they appear in U.S. History from the Constitution to the present. The conceptual approach will be interwoven with chronological treatment of U.S. History.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Regents
Prerequisite: **Passing Regents Global History & Geography II**

GLOBAL HISTORY & GEOGRAPHY I ACCELERATED

This course is designed to help students develop a greater understanding of the evolution of global themes and interactions between different types of human societies. The course advances this understanding using a combination of Global History knowledge and analytical skills. This course is followed by Advanced Placement World History which is designed to approximate college level course work. Emphasis is placed on developing the students' analytical skills and factorial knowledge in such a way as to allow the student to deal critically with topics, problems and materials of World History.

Credit: 1 unit Time 40 weeks (full year)
Examination: Local
Prerequisite: **Teacher recommendation and grade of 85 or better**

Note: *Summer work may be required before the fall semester begins.*

AP WORLD HISTORY MODERN

This course will study major themes of World History with a great emphasis on the cultural, social, historical and political development from the colonial period through the twentieth century. Examination of pertinent documents will be used to present varied opinions of cause and effect in World history.

Credit: 1 unit Time: 40 weeks (full year)
Examination: AP and Regents
Prerequisite: **Honors Global I is recommended, but not required.**

AP AMERICAN STUDIES

This course will study major themes of American History with a great emphasis on the cultural, social, historical and political development from the colonial period through the twentieth century. Examination of pertinent documents will be used to present varied opinions of cause and effect in American history.

Credit: 1 unit Time: 40 weeks (full year)
Examination: AP and U.S. History Regents exam
Prerequisite: **Passing Global History & Geography II Regents, and 85 or better on the Global History & Geography II exam and teacher recommendation**

Note: *Summer work may be required before the fall semester begins*

PARTICIPATION IN GOVERNMENT

This course is a required Social Studies course for graduation. The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority, governance and law. Students will use a variety of skills to demonstrate understanding of the necessity for establishing governments; the governmental system of the U.S. and other nations; the U.S. Constitution; the basic civic values of American constitutional democracy; and the roles, rights and responsibilities of citizenship. Attendance at one public policy making meetings are required of all students.

Credit: 1/2 unit Time: 20 weeks (half year)
 Examination: Local
 Prerequisite: **Passing U.S. History & Government**

ECONOMICS & ECONOMIC DECISION MAKING

This course is the local adaptation of the Regents mandated course including micro and macro economics. The topics in this course consist of economic systems; scarcity; factors of production; circular flow; supply and demand; roles of consumer, business, labor, and the functions of money. This course will provide knowledge and skills necessary to enable students (as adults) to make rational, individual, family and public policy decisions on economic issues.

Credit: ½ unit Time: 20 weeks (half year)
 Examination: Local
 Prerequisite: **Passing U.S. History & Government exam**

ADVANCED PLACEMENT EUROPEAN HISTORY

Advanced Placement European History is a full year elective offered to students who have demonstrated superior interest and achievement in Social Studies. The course, taught on the college freshmen level, covers the history of Europe from 1500 to the present through lectures, research and discussions, and individual reading.

Credit: None Time: 40 weeks (full year)
 Examination: AP and Project
 Prerequisite: **AP World History Modern and/or AP American Studies**

ADVANCED PLACEMENT GOVERNMENT

The Advanced Placement course in U.S. Government and Politics will give students an analytical perspective on government and politics in the United States. The course includes both the study of general concepts used to interpret U.S. politics and the analysis of specific examples. It will also require familiarity with the various institutions, groups, beliefs and ideas that constitute U.S. politics. This course can be taken in place of Participation in Government which is a graduation requirement. It meets every other day for the full school year.

Credit: 1/2 unit
 Time: Every other day for entire school year
 Examination: AP
 Prerequisite: **Global History & Geography II and teacher recommendation**

ADVANCED PLACEMENT ECONOMICS

AP Macroeconomics is a full year course that meets every other day. It may be taken in lieu of the half year course Economics & Economic Decision Making. Topics explored include the ideas of Scarcity, Choice, and Opportunity Cost. Macroeconomic issues such as the business cycle, types of unemployment, and inflation are explored as they relate to the economy as a whole. Gross Domestic Product, CPI and others are explored and compared to other countries. The role of banks and comparing foreign economies are also covered.

Credit: 1/2 unit each Time: 20 weeks (half year)
 Examination: AP
 Prerequisite: **U.S. History/Government Regents, Integrated Algebra and teacher recommendation**

INTRODUCTORY PSYCHOLOGY

This elective course of study will allow students the capability of much more growth and self-actualization, than their normal environment allows. They will be able to understand that the study of psychology is a science, measured and evaluated through controlled experimentation. Through this elective, students will develop a better understanding of those who surround them and to better cope with life's pressures as they begin to identify and develop their roles in society, especially important to the adolescent in today's complex and stressful world. This course is recommended for the Academy of Health Sciences.

Credit: 1/2 unit Time: 20 weeks (half year)
 Examination: Local
 Prerequisite: **Global History & Geography II**

INTRODUCTORY SOCIOLOGY

This elective course of study will allow students to study society as a whole. This elective will focus on social groups, social interaction, and the socialization process.

Credit: ½ unit Time: 20 weeks (half year)
 Examination: Local
 Prerequisite: **Global History & Geography II Regents**

CONTEMPORARY ISSUES

This elective course examines current social, political, and economic issues facing our community, country, and the world we live in. Topics will vary based on current news cycles. This class encourages students to be informed citizens and to make intelligent decisions. There is a wide range of topics and includes field trips and guest speakers.

Credit: ½ unit Time: 20 weeks (half year)
 Examination: Local

**THE HISTORY OF THE HOLOCAUST
(JUNIOR AND SENIOR COURSE)**

This course is designed to achieve an understanding of one of the most significant violations of human rights in history. The study of the Holocaust will include the history of anti-Semitism, the rise of the Nazi party, and the Holocaust, from its beginnings through liberation and the aftermath of the tragedy. Students will gain an understanding of the ramifications of prejudice and indifference, and what it means to be a bystander. Students will study a variety of primary sources including Nazi propaganda, survivor testimonies, and Nazi documents. We will attempt to understand the factors that caused the Holocaust. Topics for the course include but are not limited to; the roots of the Holocaust including a study of racism and prejudice, Judaism and Jewish life, the formation of Ghettos and Camps, Final Solution, Liberation, Nuremberg Trials, and aftermath. A variety of sources including art, photographs, virtual field trips, and films (Schindler's List) will be used. (under examination)

Credit: 1/2 unit Time: 20 weeks (half year)

Examination: Local

Prerequisite: **Global History & Geography II**

CANADIAN HISTORY

This elective course of study is about our neighbor to the north. This class will cover everything from Canadian geography, founding, confederation, music, sports and even different varieties of maple syrup. The confederation period will cover British and French contributions to Canadian history. Local Canadian history like Fort Erie and Niagara-on-the-Lake will be examined with it's effect on American history. And yes, we will learn how to make authentic Canadian Poutine.

Credit: 1/2 unit

Time: 20 weeks (half year)

Examination: Project

Prerequisite: None

TECHNOLOGY

Sequence Option

Students may substitute five units of technology 21st Century Skills/Financial Literacy for the third unit of foreign language to receive a regents diploma.

TECHNOLOGY IN THE HIGH SCHOOL

CONSTRUCTION SYSTEMS & ELECTRICITY/ELECTRONICS

This full year introductory course is designed as a hands-on activity based program for students interested in the construction field. The focus of the course will be on residential structures. Students will be engaged in designing and building a scale model house using the tools and machines in the technology room. The electronics segment works with numerous devices and kit building. The students will learn the properties and uses of many elements pertaining to electronics including identification of components and understanding the functions of each part. They learn about different types of circuits and their practical applications. The kit building comprises real world applications, safety in the electrical lab, and safety in the home. Topics include, but are not limited to: safety, tools/machines used on a job site, foundations, framing, plumbing and wiring, basic theories of electricity such as Ohm's Law electrical construction and fabrication, including the use of simple tools, schematic diagrams, power and energy, drywall, roofing, siding, and insulating. Some financial and contracting areas will be explored as well.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: **None**

HOME MAINTENANCE AND REPAIR

Home maintenance and repair is a full-year elective course for students who want to learn how to do their own repairs and maintenance around the house. The program will show the students how to save time, money and avoid frustration when making household repairs. After learning about tools, the course will provide knowledge, skills and hands-on activities in the care and repair of plumbing, doors and windows, concrete, electrical, heating systems, insulation and many other household areas.

Credit: 1 unit Time: 40 weeks (full year)
Prerequisites: None
Grade Requirement: None

MANUFACTURING AND MATERIALS PROCESSING

This full year technology course gives the student an opportunity to explore the manufacturing and materials processing industry. Learning about materials through hands-on experience is both effective and fun. Students will build several projects throughout the year as 75 percent of the student's time will be devoted directly to hands-on application of course materials. This course will focus on current manufacturing methods and fabrication techniques used in industry today. Students will gain an understanding of why various materials are chosen for specific applications in industry. With the hands-on experience of building projects, students will be exposed to many manufacturing methods. Past projects have included Adirondack chairs and tables, sheet metal tool boxes, small cabinets with drawers, clocks, remote controlled wrestling robots, and fold-up tables.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

TECHNICAL DRAWING

This is a 1/2 year introductory course for any student interested in technical drawing. Students taking this course will be given an opportunity to develop fundamental drawing concepts, basic skills, and good work habits in the technical drawing field. These basic drawing skills can be transferred to other technology courses such as CAD and DDP. Course contents includes, but is not limited to: drawing tools and equipment, free hand sketching, measuring, 1, 2 and 3 view orthographic projection, pictorial (3D) drawings, traditional dimensioning, geometric dimensioning, geometric design, and basic blueprint reading. This course fulfills 1/2 unit of the art requirement.

Credit: 1/2 unit Time: 20 weeks (half year)
Examination: Local
Prerequisite: None

PRINCIPLES OF ENGINEERING & ENERGY SYSTEMS

This full year course will give students an opportunity to explore basic principles of engineering and energy systems in industrial use today. Learning principles of engineering and energy systems through hands-on experiences is both fun and effective. Students will build several projects in class designed to stress and demonstrate the fundamental principles of engineering and energy systems. Students will gain an understanding of why certain designs and structural systems are in use today. With the hands-on experience of building projects, students will be able to design, construct and test different engineering and energy system methods right in the classroom (tech lab). Past projects have included electric motors, solar voltaic, hovercrafts, rocketry, buoyancy, cranes, catapults, gliders, Rube Goldberg designs, magnetic levitation vehicles, model bridges, and more.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local or Final Project
Prerequisite: **Good Math and Science background**

CREATIVE ENGINEERING

Gain new engineering and problem solving skills as you design and create solutions to real world problems. Employ your new skills as part of the engineering process to construct, test, and modify devices of your own creation. Tinker with existing systems to give them a new function, and acquire the skills sought out by STEM employers.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local or Final Project
Prerequisite: **Good Math and Science Background**

DESIGN DRAWING FOR PRODUCTION

The style of presentation for this syllabus evolved from the way industrial, engineering and architectural firms solve their design problems and communicate their solutions. The syllabus emphasizes critical thinking, creative problem-solving and the decision-making processes by requiring the student to examine past solutions, learn technical drawing processes, experience design techniques and become critically active in the evaluation of his/her work and that of others.

Starting with the presentation of a Design Activity Brief, you are provided with descriptive information in each of the following seven constants: technical drawing area; design activity; research and critical analysis; historical references; skills, linkage; evaluation. This descriptive information should be the basis for the development of any Design Activity Brief. The seven constants are organized in a holistic manner. You may begin from any one and continue in any order. To complete a Design Activity Brief, all seven constants are to be investigated.

Credit: 1 unit Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

INTRODUCTION TO COMPUTER AIDED DRAWING (CAD 1)

This course is a one-year, introductory hands-on technology course, which develops drawing skills using a Computer Aided Drafting (CAD) system. Having mastered basic drawing skills from Design and Drawing for Production, your goal will be to become more knowledgeable drafters while becoming CAD competent, applying the power of the Auto CAD and Auto Cad inventor software system. This course will also emphasize critical thinking, creative problem solving, 3D Printing, and the decision making process. The style of presentation for this course evolved from the way industrial, engineering and architectural firms solve their design problem and communicate their solutions.

Credit: 1 unit (MST) Time: 40 weeks (full year)
Examination: Local
Prerequisites: None

ADVANCED COMPUTER AIDED DRAWING (CAD 2)

The students will continue to investigate the computer software as a tool. The course will expand on the two-dimensional Auto CAD software program and reinforce their knowledge with isometric, metric conversions, electronics and extensive design of architectural projects.

The students will also become experienced with an AutoDesk three-dimensional software program called Inventor. This unit will encourage visual creative thinking by analyzing a problem, examining the ramifications, and presenting a solution to that problem through design and drawing. The class helps to develop an understanding of three-dimensional forms of space through CAD, Model Construction and 3D Printing. A state of the art 3-D Architectural program called REVIT will be used during CAD 2 and CAD 3. It is the most widely used software in Architectural companies.

Credit: 1 unit (MST) Time: 40 weeks (full year)
Examination: Local
Prerequisite: None

ENGINEERING DESIGN (CAD 3)

The Computer Aided Drawing and Design course teaches more problem-solving skills using a design development process. Models are created, 3D Printed, analyzed and communicated using solid modeling computer design software, starting with Inventor. Students work more in teams to research, design and construct a solution to open-ended engineering problems. They will apply engineering principles developed in class to draw and build scaled models of their solutions. The CAD III students will also be introduced to another three-dimensional software program called SolidWorks that is the most widely used program in the Western New York area. This hands-on, project based approach to learning better prepares students for the rigors of college.

Credit: 1 unit (MST) Time: 40 weeks (full year)
Examination: Local
Prerequisite: **Advanced Computer Aided Drawing (CAD 1 or 2)**

ROBOTICS (Grades 9-12)

20 weeks

Robotics is a 1/2 year course designed for students who are interested in learning more about building, coding and competing with robots. They will work alone and collaboratively with others in groups to design and build robots to complete given tasks using the engineering design method of brainstorming, prototyping, testing and completing their finished robotic designs. Students will have the opportunity to compete in a regional VEX robotics competition. This course will culminate in a final project utilizing their own unique builds to accomplish the goals set forth in the final project outline.

DRONES (GRADES 9-12)

20 WEEKS

Fall Semester

Drones is a 1/2 year course offered in the fall which gives students the opportunity to gain experience by constructing a racing drone and learning to program the drone's behaviors using a radio transceiver controller. Students will learn to safely fly their drone through a series of challenges and missions that emulate the future use of drones in society. Students will learn about the exciting field of drones - the wide array of job opportunities, flight safety, basic drone construction and troubleshooting. There is no prerequisite for this course.

ADVANCED DRONES 16 YEARS OLD BY END OF COURSE 20 WEEKS

Spring Semester

Advanced Drones is a 1/2 year course offered in the spring which gives students the opportunity to gain experience flying professional outdoor drones. This course covers FAA regulations for our airspace, practical applications for successful drone missions, different types of drones, strategies to choose the best drone for specific business needs, and necessary photography techniques. Students age 16 and up will be given the opportunity to take the Part 107 licensing exam. Upon successful completion, they will be ready to enter this fast-growing industry as a commercially licensed remote pilot.

Prerequisite: **Drones****JACKS OF ALL TRADES (9, 10, 11, 12)**

A mix between a class and an internship you will become a teammate of the Jacks of All Trades. At our heart we are makers, who enjoy creating things that don't already exist. We solicit orders from our local school community, and learn the skills we need to create and advertise our services along the way. You will expand your entrepreneurial portfolio as you learn new manufacturing skills like laser engraving, sublimation printing, 3D design/printing, and digital design various media and promotional materials, video editing and whatever else you are interested in making. This course can be taken more than once, as your responsibilities and tasks evolve over the time spent in the program. This course can be taken as an independent study.

Credit: 1 unit (MST)

Time: 40 weeks (full year)

Prerequisite: **None**

CAREER AND TECHNICAL EDUCATION

Career and Technical Education programs are available to North Tonawanda students at the Niagara Career & Technical Center operated by the Board of Cooperative Educational Services (BOCES) for students in grades 11 and 12. A variety of programs are available, each requiring approximately one-half of the student's school day. The other half-day* is spent attending classes in the home school. The goals of the program include providing the skill development needed for basic entry jobs as well as a good high school experience for students who choose a work-oriented environment. In the vocational-technical courses, students are directly involved in skills of the trade. Students earn 3 credits per year in each year of their occupational education program.

***Note:** Juniors attend NTHS for 5 periods per day (periods 1-5) and BOCES for 4 periods per day (periods 6-9), whereas Seniors attend BOCES for 4 periods only (periods 1-4) and NTHS for 5 periods per day (periods 5-9).

ANIMAL SCIENCE

Animal Science is a two-year Career and Technical Education program designed to explore the diverse field of animal science. The Animal Science program is for students who have a desire to work with large or small animals. Throughout the program students will recognize the important roles animals play in society from individual ownership to scientific research with far reaching implications. This technical course teaches specialized and advanced skills in areas such as veterinary assisting, care and handling of animals in a laboratory or veterinary setting, dog grooming, and kennel/pet shop management. This course provides students with the opportunity to care for and be exposed to a wide variety of animals within the classroom and community setting. This science-based program will teach skills in areas such as animal handling, anatomy and physiology, grooming, pet first aid, health and disease, clinical practices, veterinary terminology, and safety and sanitation. Students will operate a grooming parlor that is used as a learning model for the handling and caretaking of animals. They will use the tools of the trade, including diagnostic and grooming equipment. Upon successful completion of this program, students may receive college credits pending established procedures.

ANIMATION, FILM AND VISUAL EFFECTS

This program is comprised of two one-year courses designed to help students gain valuable media production experience, and move to the next stage in their career path. Our media production facilities include digital filmmaking and audio equipment, a green screen studio space, and Macintosh workstations. Students use the same industry-standard software as professional filmmakers and animators, including Adobe Photoshop, Adobe Premiere Pro, Adobe After Effects, Toon Boom Harmony and Autodesk Maya. Students enrolling in this program should have strong communication skills (visual and written), excellent attendance, a strong work ethic, creativity, organizational skills, time management, problem solving skills and the ability to meet deadlines.

AUTO COLLISION & REPAIR

Auto Body is a two-year program for juniors and seniors. Auto Body is for students who want to learn to repair, refinish and paint automobile bodies, fenders and frames. Students will also learn about auto electric, computer controls, suspensions, brakes and HVAC. This program is I-CAR and ASE certified.

AUTOMOTIVE TECHNOLOGY

Automotive Technology is a two-year program open to all students in their junior and senior years. The program is designed to help prepare the student who wants to enter the automotive field in an independent repair facility, a new or used car dealership, a fleet maintenance repair shop or parts distribution facility. This program is ASE certified.

BUILDING MAINTENANCE MANAGEMENT

This program prepares students to assume key positions in fields of general contracting, facility operations and property management. There is a great need for highly-trained individuals to operate, manage and maintain various kinds of facilities both locally and nationally. The curriculum is unique in providing this technical and managerial training. The student will gain knowledge in the following areas: overview of the building trades, operation of a building's mechanical system, and managerial/supervisory skills and business practices. Our program aims to develop skills that are needed for planning, scheduling and controlling the efficient operation and repair of equipment and buildings. The facilities operations and property management fields will require a thorough understanding of the construction and maintenance process. The curriculum provides hands-on activities to augment and complete the education of the student.

CERTIFIED PERSONAL TRAINER

The Certified Personal Trainer program is a two-year program for juniors and seniors in high school. This course is designed for the individual seeking competency in health, fitness and exercise instruction. Students will perform fundamental health and fitness assessments and learn to design and implement fitness programs for the healthy population. During the course, students are provided with the most relevant scientific information regarding the assessment, design and implementation of safe, effective and efficient personal exercise instruction. Upon completion of this program, students will be academically prepared to take the American Council of Exercise Certification Examination (ACE) or The National Academy of Sports Medicine Certification Examination (NASM), and enter related college programs such as: Physical Therapy, Athletic Training, Exercise Science, Physical and Health Education, Dietetics as well as Nutrition.

COMPUTER TECHNOLOGY

This program is open to all students in their junior or senior year of high school. Students will learn about all aspects of computer technology including software packages, operating systems and hardware architecture. Students are eligible for Comp TIA-A+ certification.

CONSERVATION

Conservation is a two-year program open to all students in their junior or senior year. This program is designed to give students a better understanding of our natural resources and the reasoning for preserving them with activity based learning experiences.

COSMETOLOGY

Cosmetology is a two-year program for juniors and seniors. In this program students learn the latest techniques in Cosmetology and apply them in our full service salon, which is open to the public. After students have successfully completed 1000 hours of cosmetology they are prepared to apply for licensing through New York State.

CULINARY ARTS

This program is open to all juniors and seniors. Students in this program will be exposed to a variety of careers within the culinary arts and food preparation field. By actual participation, students will become familiar with the workings of modern kitchen while preparing foods of various types. This training will prepare them for future employment in both reparation and serving. This program also qualifies students for acceptance at post-secondary schools specializing in training necessary to become entry level chefs, restaurant managers, restaurant management, restaurant owners, or to become instructors of culinary arts trades. New York ProStart Program is available.

DIESEL TECHNOLOGY/HEAVY EQUIPMENT

Heavy Equipment/Diesel/Agriculture Mechanics is a two year program open to all high school juniors and seniors. Students who have found an interest in working with machines in the construction, agriculture, trucking, lawn and garden industry, welding and the Armed Forces should consider this program. Students will be working on trucks (pickups and semis), tractors, forklifts, backhoes, bulldozers, skid steers and excavators. Students will also work in groups for engine teardown, overhaul and failure analysis.

EARLY CHILDHOOD EDUCATION

This program has several options open to all students in their junior and senior years. Students spend a portion of their time teaching preschool children and gain hands-on experiences working in the on-site preschool program. Students completing this program will gain experience working with children two to five years of age. The curriculum includes several professional development opportunities such as Disabilities Awareness training; Identification and Reporting of Child Abuse for Mandated Reporters; Adult, Infant and Child CPR and Standard First Aid.

EDUCATION PROFESSIONS

Education is a job field that has been in high demand and will continue to be so in the future. There is an increasing need for qualified professionals to fill the roles of teachers, administrators, counselors, and other education-related positions. The Education Professions Program provides an intensive one-year program for high school students who are looking to jump-start their careers in this field. This program is designed for academically strong-minded students who anticipate attending college after high school graduation. The program offers a comprehensive curriculum that covers many aspects of education, including careers in education, pedagogy, and classroom management. Students will receive their training through a combination of traditional classroom learning and hands-on experience to prepare them for their careers. They will receive theory instruction in a classroom at Niagara County Community College or Genesee Community College at the Medina Campus. Students may also enroll to obtain college credits through their coursework in the program. The hands-on experience permits students to shadow and intern in a school classroom environment and at other educational field areas. Students can concentrate and participate in a work- study based on their self-interest. The methodology of combining classroom learning and hands-on experiences are essential for students who want to excel in their future careers. The program produces a straightforward transition from the high school setting to the college setting and the world of work.

ELECTRICITY/ELECTRONICS

This is a two-year program for juniors and seniors which allows students the opportunity to attain entry level job skills and/or prepare for additional in-depth training in the Electricity/Electronics field. Students will study Electronics Technology with many analog and digital projects to build. Residential house wiring and industrial motor controls along with training on PLC's (Programmable Logic Controller) are part of the program. Classes may wire a modular home or work on projects outside of the Career and Technical Ed Center. Students will be given job-seeking skills and be assisted in finding jobs near the end of their second year. We have had multiple State and National SkillsUSA Champions in this program.

EMERGENCY MEDICAL SERVICES/FIRE SCIENCE

This two-year program focuses on the skills and knowledge required for basic certification in the field of Emergency Medical Services (EMS). Students will be learning how to provide immediate lifesaving care to critical patients who access the EMS system. Students will learn the critical link that CFRs and EMTs provide between the scene of an emergency and health care system. Students can become certified as Certified First Responders (CFR) and as Emergency Medical Technicians (EMT). They will have the opportunity to get certificates and be trained in CPR/AED, HIPAA, Bloodborne and Airborne Pathogens, Sexual Harassment in the Workplace, Hazardous Materials Awareness, and the Incident Command System.

FASHION DESIGN/INTERIOR DECORATING

Fashion Design and Interior Decorating is a two-year program for juniors and seniors. During the two year program, students will focus on fashion illustration, the elements and principles of design, textile science, apparel design and construction, pattern making methods, professional sewing techniques, retail merchandising and marketing, and interior floor planning and styles. Each year the senior class plans and organizes an annual fashion show. Junior and Senior year students showcase their fashion collection with models walking the runway. Enrolled students can earn credits that will satisfy core academic requirements in English Language Arts, Math and Science. Through the integration of these core academics, achieving a Regents Diploma remains in reach.

GRAPHIC COMMUNICATION

The Graphic Communications program is for junior and senior students who are interested in entering the photography, multimedia, printing and advertising industries. Students will learn skills in layout and design with the latest software for digital illustration, photo imaging, digital photography, web design and publishing. Through project development, students will discover and design for the promotional world of advertising and marketing. After students experience multiple areas within the graphic communication field, they will choose their favorite area to focus on and master in their senior year.

HEALTH OCCUPATIONS TECHNICIAN

This program is available to juniors and seniors. The Health Occupations Technician program addresses this demand in a two-year program that focuses on the art and science of providing patient care with real-life experience in a variety of health care settings. Emphasis is placed on providing safe, reliable, ethical, and a respectful patient care. This is a very active program with classroom, lab and clinical components. Each of the components is designed to prepare students to care for diverse individuals of all ages, from birth to the end stages of life. Students will experience all aspects of the health care field from illness and injury to gain real life experience. Our students gain firsthand clinical experience in local long term care facilities. After successful completion of the HOT program students are eligible to take the NYS Nursing Assistant Certification exam and enter into the workforce. In addition, graduates also develop a foundation on which to make informed decisions regarding their future choices in health care employment and potential future education in the health care professions.

HEATING/VENTILATION/AIR CONDITIONING AND REFRIGERATION

HVAC is a two-year program for juniors and seniors. This program is designed to provide students with employability skills in the service and installation of residential and commercial heating, air conditioning and refrigeration units. This is a comprehensive technical and hands-on training program that covers all critical aspects of the HVAC/R field. Students will learn to install, maintain, troubleshoot and repair both residential and commercial systems in a fully operational HVAC/R lab. Instruction includes wireless and Wi-Fi control systems. OSHA certification is available to all students. EPA is available to students who want it (extra cost).

PRECISION MACHINE TECHNOLOGY

Over the two-year program students are exposed to Computer Numerical Machining, Computer Aided Design and Welding Technologies. Students will experience how multiple technologies interact in a real manufacturing environment. Laboratory experiences and field trips to local industries help students to understand the manufacturing environment. All students follow approved industry and engineering methods and standards while learning to fabricate industry specific metal products. At our facility in Medina (OCTEC), this program is only one of three in NY State involved with the NASA Hunch Program. The students in this program are making hardware that will be used on the International Space Station. Currently the program has parts onboard the International Space Station that were fabricated in class on the equipment in this program.

SECURITY/LAW ENFORCEMENT

Students will engage in the fundamentals of law enforcement and security. Instruction will include: defensive tactics, proper handcuffing skills, appropriate use of a police baton, firearms safety training, police traffic stops, crime scene investigations, evidence handling and evidence packaging. Additional areas of instruction will include: emergency responses, arrest procedures, photographing and fingerprinting a suspect. Fingerprint training encompasses recognition, analysis and matching of fingerprints. The laws of New York State and the Federal government will be prominent throughout the course of study. Professional certificates available are: NYS Security Guard certification; First Aid/Combat Lifesaver; CPR/AED certification; NYS Mandated Reporter, NARCAN/Drug Overdose Prevention and Defensive Tactics/Self Defense certification.

WEB DEVELOPMENT/GAME PROGRAMMING

The Web and Game Development program is geared toward students interested in exploring computer programming, web technologies, and the creativity and technology of game creation. Students in this program will develop skills in coding, interactive design, game theory and development, and mobile game app creation using industry standard programming languages and development tools. The program consists of one year of Web Development and one year of Game Development. Potential careers may include: web developer, interface designer, computer programmer, systems analyst, software engineer, database specialist, game programmer, mobile app developer, and other computer science careers.



WELDING AND METAL FABRICATION

The welding program is a two-year program for juniors and seniors. This program is designed to develop skills in all areas of welding and metal fabrication, but most specifically those areas where there is the greatest employment potential. This two-year program will ensure good working skills in welding. Approximately one-quarter of the course is devoted to metal fabrication methods and production of welded items.



TECHNICAL MATH/SCIENCE/ENGLISH

These courses are offered at the Niagara Educational Center for students unable to complete Math, Science and/or English at NTHS. Students earn one credit towards graduation upon completing this course.

Technical Math: Students need to have two math credits to be eligible to take this class. The majority of the math in this course includes math that is used in the various trade areas, thus helping the student comprehend their chosen vocational field. Also included are life skills such as banking, mortgaging, insurance, income tax, and other various fields of consumer math.

Technical Science: One course credit must have been earned in order for a student to be eligible for this class. This course deals with the sciences related to the various vocational areas.

Technical English: This course may be used to replace English 12 for those who cannot fit it into their schedule at NTHS. Skill development focuses on building proficiency in technical writing, note-taking, listening, essay writing, and composing business letters.

VOCATIONAL INDIVIDUALLY PACED SERVICES (3 CREDITS)

Automotive Services students will learn fundamental skills and knowledge in the automotive industry. Students who successfully complete this course may be eligible to meet the requirements set forth by the NYS Department of Education for the Career Development and Occupational Studies (CDOS) credential. Required course work and work based learning hours can be tracked and documented for these students. Students that start in this course and develop both the employability and fundamental automotive skills may be prepared to move into two-year CTE programs.

Building and Grounds is an exploratory course that includes an overview of trades in carpentry, plumbing, electrical wiring, drywall hanging, repairs, finishing, masonry design, layout, maintenance repairs and cleaning up and landscaping. Students learn interviewing skills and how to work well with others.

Food Service students will learn fundamental skills and knowledge in the food preparation industry. Students who successfully complete this course may be eligible to meet the requirements set forth by the NYS Department of Education for the Career Development and Occupational Studies (CDOS) credential. Required course work and work based learning hours can be tracked and documented for these students. Students that start in this course and develop both the employability and fundamental culinary skills may be prepared to move into two-year CTE programs.

INFORMATION FOR DETERMINING NCAA FRESHMAN ATHLETICS ELIGIBILITY

You can also visit or call the NCAA at www.ncsasports.org or 1-866-495-5172

The NCAA initial-eligibility rules have changed that impact the class of 2023 and beyond, and whether college-bound student-athletes will be eligible for practice, competition and financial aid in their first year at an NCAA Division I or II college or university.

Division I Changes – Overview – Starting with the class of 2023

1. The minimum grade-point average (GPA) you can have to be considered a 2.3 GPA.
2. The NCAA requires prospective D1 athletes to complete ten (10) core courses before the start of your final semester of high school. Seven (7) of the courses need to be in English, Math, and Natural or Physical Science.
3. Although the NCAA stopped making the SAT or ACT mandatory in 2020, you may still need to take them. Some colleges continue to expect these scores for admission and specific scholarships may request them too. It's a good idea to check what each college and scholarship requires to make sure you meet all the criteria.

DIVISION I		DIVISION II	
16 CORE COURSES		16 CORE COURSES	
16 Core Courses:		16 Core Courses:	
4	years of English	3	years of English
3	years of mathematics (Algebra I or higher).	2	years of mathematics (Algebra I or higher).
2	years of natural/physical science (1 year of lab if offered by high school).	2	years of natural/physical science (1 year of lab if offered by high school).
1	year of additional English, math, or natural/physical science	3	years of additional English, math, or natural/physical science
2	years of social science	2	years of social science
4	years of additional courses (from any area above, foreign language or Comparative religion/ philosophy)	4	years of additional courses (from any area above, foreign language or comparative religion/ philosophy)

Please note: Computer-science courses may only be used for initial-eligibility purposes if the course receives graduation credit in mathematics or natural/physical science and is listed as such on the high school's list of NCAA-approved core courses. *****21st Century Communications and Intro to Algebra 2 and Physical Math are NOT NCAA-approved classes. Speak with your School Counselor to make sure your courses are NCAA approved.**

GRADE-POINT AVERAGE

- Only courses that appear on the NTHS approved NCAA courses will be used in the calculation of the core GPA.
- **Division II** core GPA requirement is a minimum of 2.2.

For more information regarding the new rule, please go to www.ncaa.org. Click on "Student-athletes and Parents" in the "Custom Home Pages" section. You may also visit the clearinghouse Web site at www.ncsasports.org.

**NORTH TONAWANDA
CITY SCHOOL DISTRICT**

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