

HIGH SCHOOL COUNTS

As you approach your high school education, there are many decisions to make. Now is the time to seriously evaluate the importance of taking strong academic courses in high school. Even if not considering college after high school, you will find the same basic skills and competencies gained by taking these courses will be of value in your work or other life experiences. If choosing to attend college, you will have the necessary background to develop additional skills and abilities based on the same strong educational foundation.

PLAN AHEAD. It is extremely important that you and your parents/guardians give serious and careful attention to planning your high school program of study. Consider the following points as you begin to choose high school courses. Attention to these points will increase your chances of being academically prepared for college and admitted to the college of your choice.

1. Choose high school courses carefully and wisely in order to develop competencies in reading, writing, speaking, listening, and reasoning. The courses that will help you most in acquiring these basic competencies, regardless of your potential academic or career interests, are those that give you a strong preparation in English (especially composition), mathematics, sciences with laboratory experience, social studies, and a foreign language.
2. Develop good work and study habits. These differ from student to student and are usually developed through trial and error, although your teachers and school counselor can provide helpful suggestions. Students who arrive at college with proven work and study patterns have a great advantage over students who need to establish them while trying to cope with the many new experiences of being a freshman in college.
3. Allow yourself to experience the joy of the learning process. Consider high school years as an opportunity to prepare yourself in a very basic way for future learning. Make every effort to understand concepts, theories, and philosophies you are exposed to, rather than simply memorizing facts and cramming for exams. Try to see relationships between what you are studying and challenges you might face in future courses. Think about your high school program, educational plans after high school, and choice of a future career or profession as integral parts of a whole. The knowledge base that you build during high school must prepare and serve you for the rest of your life. By adopting a positive attitude toward learning early in your high school years you'll be well on the way to becoming a successful student and a lifelong learner.
4. A time to explore. To encourage you to get the most out of your high school experience Iowa Regents' Universities have established a set of course requirements for admission. By meeting these requirements you will not only satisfy the high school course requirements for admission to a state university in Iowa, but also those for most other schools you might want to attend. These requirements are, however, only minimums for college bound students. We strongly encourage you to include additional subjects, which are available to you at your high school. Consider courses, that allow you to explore a future career, cultivate talent in the performing or visual arts, or participate in extra curricular activities. These areas are valued at the Iowa Regents' Universities because they broaden your horizons, enhance total educational program, and increase contact with others. These experiences, when combined with a strong academic program should make you a confident and successful college student!

IOWA REGENTS' UNIVERSITIES ADMISSIONS REQUIREMENTS

Freshman applicants who wish to enter one of the Regent Universities (UNI, Iowa, & Iowa State) will be held to a **Regent Admission Index (RAI)** requirement. The RAI score is based upon four factors: ACT composite score, high school class rank, cumulative high school grade point average, and the number of high school courses completed in the core subject areas of English, Mathematics, Science, Social Studies, and Foreign Language.

RAI Calculation

- (2 x ACT composite score)
- + (1 x high school percentile rank)
- + (20 x high school GPA)
- + (5 x total number of core courses completed in high school)

Your RAI Score

**Note: For purposes of calculating the RAI, 99% is the top value for high school rank, 4.00 is the top value for GPA, and the number of high school core courses completed is expressed in terms of years or fractions of years (e.g., one trimester equals 0.5 year).* If a student takes 4 years (both trimesters) of English, Math, Science, Social Studies, and Foreign Language they could get a score of 20 which then multiplied by 5 would give a 100 as the top number a student could get under the core courses area.*

Applicants who complete the minimum high school course requirements and who achieve an RAI score of at least 245 will automatically qualify for admission to any of the Iowa Regent Universities. Applicants who complete the minimum high school course requirements and achieve less than a 245 RAI score may still be admitted to a specific Regent University; however, these applicants will be reviewed on an individual basis and the admission decision will be specific to each institution. (www2.state.ia.us/regents/RAI/index.html)

This index places greater emphasis on your high school course selections. Core courses are in the areas of English, Math, Science, Social Studies, and Foreign Language. The more core courses you take, the higher your RAI score. **It is very important that your son/daughter plan their high school courses carefully.**

Course Requirements for Admission to Iowa's Universities.

ENGLISH

UNI- 4 years, one year of composition, may include one year of speech, communication or journalism.

U of I- 4 years with emphasis on the analysis and interpretation of literature, composition, and speech.

ISU- 4 years of English/language arts emphasizing writing, speaking, and reading, as well as understanding and appreciation of literature.

ELECTIVES

UNI- 2 years of additional courses from the required subject areas, foreign languages, or fine arts.

U of I- Elective courses are not required for admission.

ISU- Elective courses are not required for admission.

MATH

UNI- 3 years including the equivalent of algebra, geometry and advanced algebra.

U of I- 3 years including two of algebra and one of geometry for the College of Liberal Arts and Sciences. 4 years including two years of algebra, one year of geometry and higher math (trigonometry, analysis, calculus) for admission to the College of Engineering.

ISU- 3 years including one year each of algebra, geometry and advanced algebra.

SCIENCE

UNI- 3 years including courses in general science, biology, chemistry, earth science, or physics; laboratory experience highly recommended.

U of I- 3 years including one year each from any two of the following: biology, chemistry, and physics for admission to the College of Liberal Arts. 3 years including at least one year of chemistry and one year of physics for admission to the College of Engineering.

ISU- 3 years including one year each of courses from two for the following fields: biology, chemistry, and physics.

SOCIAL STUDIES

UNI- 3 years including courses in anthropology, economics, geography, government, history, psychology, or sociology.

U OF I- 3 years with U.S. and world history recommended for admission to the college of liberal arts. 2 years with U.S. and world history recommended for admission to the College of Engineering.

ISU- 2 years including one year of U.S. history and one trimester of U.S. Government for admission to the Colleges of Agriculture, Business, Design, Education, Engineering, and Family and Consumer Sciences. 3 years including one year of U.S. history and one trimester of U.S. government for the admission to the College of Liberal Arts and Sciences.

FOREIGN LANGUAGE

UNI- Foreign Language courses are not required for admission to UNI. However, 2 years of foreign language in high school with a C- or above in the last course will meet university graduation requirement.

U of I- 2 years of a single foreign language are required for admission. For many degrees, the fourth year of proficiency is required for graduation.

ISU- 2 years of a single foreign language for admission to the college of Liberal Arts and Sciences and Engineering.

Most universities and colleges in Iowa require a college preparatory curricular background and appropriate RAI score.

Iowa Community Colleges and Technical Schools have an “open door” policy for admission requirements. Students may seek admission to these schools regardless of their RAI score or core curriculum. Many times the school will require an aptitude test for admission into a particular field.

STUDENT REGISTRATION AT DIKE-NEW HARTFORD HIGH SCHOOL

Introduction For Students And Parents/Guardians

The purpose of this booklet is to acquaint students and parents/ guardians with our educational program. In order for a student to obtain a quality education, she/he must analyze his/her abilities, needs, and future educational and occupational goals. Parents/guardians, teachers, and particularly the counselor are valuable resources with whom students can consult to select the best possible schedule. Too often students select classes because friends selected them or they happen to fall at a particular time of the day. These reasons are merely conveniences. We owe it to students to have them consider only factors that are educationally relevant when selecting their schedule. For many of our students, high school needs to be solid preparation for technical, community college, or university training. They cannot afford snap decisions when it comes to selecting courses. Courses need to be considered carefully by students and parents/ guardians so that one's high school years can be meaningful, productive, and a solid foundation for the future.

Curriculum and Graduation Requirements

1. Requirements

- (8) credits of English
- (6) credits of Math
- (6) credits of Science
- (6) credits of Social Studies
- (3) credits of Physical Education
- (1) credit of Health
- (1) credit of Human Relations/Careers (Junior Standing)
- (1) credit of Personal Finance (Senior Standing)
- (1) credit of Freshmen Computers
- (3) credits from Business Education/Computers, Family and Consumer Science, Industrial Technology, Vocational Agriculture, Fine Arts (1 credit from at least two different areas – Freshman Computers will not count toward the three credits).

- (14) credits of Electives

- (50) CREDITS TOTAL

2. Early Graduation

If a senior desires to graduate after completion of the 1st or 2nd trimester she/he should follow this procedure:

- a. Apply to the Principal to graduate early by the third Monday in October or January with a letter of application.
- b. Discuss reasons why early graduation is requested with Counselor and parents/guardians.
- c. Receive permission to graduate early from parents/guardians. Parents/guardians must cosign a student's letter of application.
- d. Principal will seek Board approval of early graduation candidates.
- e. Students granted early graduation sever all associations with DNH at the end of the 1st or 2nd trimester and receive their diplomas.
- f. All graduation requirements must be met.

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Iowa Community Colleges and Technical Schools have an “open door” policy for admission requirements. Students may seek admission to these schools regardless of their RAI score or core curriculum. Many times the school will require an aptitude test for admission into a particular field.

3. Information Regarding Career and Technical Education

Students who successfully complete the requirements for different career and technical courses can receive college credit at Hawkeye Community College. Dike-New Hartford High School offers courses to prepare students for entry-level position in the workplace. Completion of the following sequence of courses in one or more of vocational areas is necessary to receive college credit. Contact the career and technical education instructor in each area for more information.

INDUSTRIAL TECHNOLOGY

- *Drafting Technology
- *Mechanical Drafting I & II
- *Architectural Drafting

FAMILY AND CONSUMER SCIENCES

- *Clothing and Fashion I & II

BUSINESS

- *Freshman Computers
- *Accounting

*These courses can receive college credit at any Iowa Community College.

Listed below are the Iowa Board Approved Career and Technical Programs at Dike-New Hartford High School and courses for each program.

BUSINESS

- Introduction to Business
- Freshman Computers
- Accounting I
- Personal Finance

FAMILY AND CONSUMER SCIENCE

- Foods I, II & III
- Clothing & Fashion I & II
- Housing & Interior Design
- Child Development I
- Child Development II
- Life Skills

INDUSTRIAL TECHNOLOGY

- Drafting Technology
- Mechanical Drafting I & II
- Metals I & II
- Architectural Drafting

4. Equity Grievance Procedure

Students and parents/guardians are hereby notified that in accordance with federal regulations assuring all students of equal opportunities and treatment in the total program, a grievance procedure has been adopted by the Board of Education. The first step of this procedure is an informal review whereby a student who believes she/he has been discriminated against because of sex, race, ethnicity, religion or disability should discuss the problem with the teacher or principal. If a formal grievance (Level 2) is requested, it should be initiated within fifteen (15) working days of the alleged discrimination with the compliance officer. The compliance officer (Equity Coordinator) is the High School Principal. Please feel free to call or visit anytime you wish to have more information, discuss a problem or to begin investigation procedures. The high school phone number is 989-2485. In the event a problem is not satisfactorily resolved at level two, then it may proceed to level three with the Superintendent.

This procedure in no way denies the right of grievant to file formal complaints with the Iowa Civil Rights Commissions, the Federal Office of Civil Rights or other agencies available for mediation or rectification of civil rights grievances or to seek private counsel for complaints alleging discrimination.

5. Independent Study

There may be students who show particular aptitude or interest in a field of study whose needs cannot be met within the traditional curriculum. Within a given discipline, a student may exhaust the curricular offerings prior to graduation. An independent study program is a vehicle to meet these unusual needs for highly motivated and talented students.

Currently there are 3 independent study programs: Art, Music and Industrial Technology.

To keep strong accountability within the independent study program it is necessary to have several guidelines. By rigidly adhering to these, we feel that the interests of a highly motivated and/or talented student can be met while keeping standards high for each course. Provisions are also included to make sure that all our students receive a well-rounded high school education and do not spend a vast majority of their time in any one field.

Guidelines for Independent Study

1. A contract will be developed by the instructor and student for each course outlining contact hours, objectives, and methods of evaluation. The contract will be signed by student-teacher-parent and high school counselor if the course is approved.
2. No student will be permitted to take an independent study course for credit or noncredit without the permission of the high school principal or guidance counselor.
3. For courses involving credit, the following minimums will govern:
 - 60 contact hours - 1 credit
 - 23 contact hours - 1/2 credit
 - 12 contact hours - 1/4 credit
4. Requests for independent study programs may come from student to teacher to counselor or from teacher to counselor.
5. Only 1 independent study course may be taken by a student in a given trimester.
6. Only 2 total units of independent study will be counted toward the graduation requirements for any individual.
7. Since one of the criteria for independent study is to have exhausted the curricular offerings in a field, it will be possible but uncommon for underclassmen to be approved for independent study.

General Requirements: Students must take 5 classes per trimester plus P.E.

The addition of new subjects or cancellations of any subjects listed in the Grade Requirements and Electives, plus program changes by subject failures, are factors in considering registration changes. Any other changes will have to be considered by the instructor involved, School Counselor, and Principal.

There will be no class changes after the first two school days of each trimester. If a student drops after this deadline she/he receives an F for the class. Students remain in dropped classes and work on other course material. All classes are 2 trimesters unless otherwise noted.

School Curriculum – High School

English:

Language Arts I
Speech/Language Arts II
Language Arts III
Language Arts IV
Individualized Reading – trimester
Mythology – trimester
Great Books I – trimester
Creative Writing – trimester
Technical Writing – trimester
Drama – trimester
Debate – trimester
Speech – trimester

Science:

Physical Science
Biology
Science Survey
Chemistry
Advanced Chemistry
Anatomy & Physiology
Physics

Mathematics:

General Math
Pre-Algebra
Algebra I
Geometry
Algebra II
Consumer Math--trimester
Pre-Calculus
Calculus

Social Studies:

World History I – trimester
World History II – trimester
United States History
American Government – trimester
World Geography – trimester
Current Events I – trimester
Current Events II – trimester
Economics – trimester
Social Psychology I – trimester
Criminal Justice – trimester
Modern American History – trimester
History of Warfare—trimester
Individualized Social Studies—trimester

Art:

Art I – trimester
Design Clay I - trimester
Design Clay II – trimester
Beginning Drawing – trimester
Advanced Drawing - trimester
Photo Design I – trimester
Photo Design II – trimester
Design Graphics I – trimester
Design Graphics II – trimester
Painting I – trimester
Painting II – trimester

Spanish:

Spanish I
Spanish II
Spanish III
Spanish IV

Business Education/Computers:

Freshman Computers – trimester
Accounting I
*Personal Finance – trimester
Human Relations/Careers – trimester
Introduction to Business – trimester
Yearbook - 1 or 2 trimesters

Family and Consumer Science:

Foods I – trimester
Foods II – trimester
Foods III – trimester
Clothing & Fashion I – trimester
Clothing & Fashion II – trimester
Housing & Interior Design – trimester
Child Development I – trimester
Child Development II – trimester
Life Skills – trimester

Industrial Technology:

Introduction to Engineering Design - College Credit

- *Drafting Technology – trimester
- Woods Technology – trimester
- Woods Technology II - trimester
- Metals I – trimester
- Metals II – trimester
- *Construction Technology – trimester
- Architectural Drafting
- Mechanical Drafting I – trimester
- Mechanical Drafting II – trimester
- Explorations in Technology – trimester

Vocational Agriculture:

Shared with Hudson & Grundy Center

Network Administration:

Shared with Hudson

Health:

- Physical Education - 9th-12th Grades
- Health I – trimester
- Health II – trimester

Music:

- Instrumental Music - 3 trimesters
- Vocal Music - 3 trimesters
- Music Theory & Appreciation--trimester

***Can be used as credit for meeting mathematics graduation requirements.**

Extra-Curricular Activities:

Boys Athletics

- Football
- Basketball
- Wrestling
- Baseball
- Track & Field
- Cross Country
- Tennis
- Swimming
- Golf
- Soccer
- Bowling

Girls Athletics

- Volleyball
- Basketball
- Softball
- Track & Field
- Cross Country
- Tennis
- Swimming
- Golf
- Bowling
- Soccer

Vocal Music

- Solos/Small Groups
- Show Choir
- Jazz Choir

Instrumental Music

- Solos/Small Groups
- Jazz Band
- Ensembles

Speech

- Large Group Speech
- Individual Speech

Other Groups

- Dramatics
- Play/Musical—Alternate years
- Student Council – Elected
- Cheerleaders
- Teacher Cadets
- Thespians Society
- Character Counts
- Team Managers

GRADE REQUIREMENTS AND ELECTIVES

9th Grade

Required Classes: Physical Science
Language Arts I
General Math/ Pre-Algebra/Algebra I/Geometry
Physical Education
Health I
U. S. History
Freshman Computers

10th Grade

Required Classes: Biology
Language Arts II
World Geography & Social Psychology
Math
Physical Education

11th Grade

Required Classes: Language Arts III
Physical Education
Math
Science
Human Relations/Careers
American Government (11th or 12th grade)
Economics (11th or 12th grade)

12th Grade

Required Classes: American Government (11th or 12th grade)
Economics (11th or 12th grade)
Physical Education
Language Arts
Personal Finance

Grade Point and Honor Roll

All grades are figured except Driver Education. Letter grades are given a numerical value of
A = 4.00; A- = 3.66; B+ = 3.33; B = 3.00; B- = 2.66; C+ = 2.33; C = 2.00; C- = 1.66; D+ = 1.33
D = 1.00; D- = 0.66.

Honor Roll is figured on the same basis. A “B” average is necessary to make the honor roll. Instrumental and vocal music grades are applied to the honor roll calculation and total grade point average. A student receiving an “F” letter grade will not be eligible for honor roll.

A course may be repeated to improve a failing or low trimester grade. Credit for any repeated course is only issued once. The highest grade received for a repeated course will be used to figure grade point average.

By an act of the Iowa legislature, students may enroll for courses at a post-secondary institution. Funds for this enrollment will be provided by the local school district, provided that a student meets admissions requirements of that post-secondary institution and the course(s) taken is not offered by the local school district. Junior, senior and TAG students are eligible. Further information about application guidelines and procedure may be obtained from the school counselor. Grades for post-secondary or college credit classes will be placed on the student’s high school transcript and used in figuring class rank, grade point, and honor roll.

COURSE DESCRIPTIONS

ENGLISH:

*LANGUAGE ARTS I—GRADE 9—REQUIRED—CREDITS 2

All freshmen are required to take this course, which focuses on general English studies. Students are introduced to literary categories such as a concentrated unit on the short story, drama, poetry, nonfiction, and the novel. Proper grammar usage, vocabulary development, sentence structure, paragraph development, and organization of essays are the main emphasis while writing. Students will be introduced to basic research skills with the outcome of a research project. A unit introducing students to Shakespeare is also a part of the instruction in this course.

*LANGUAGE ARTS II—GRADE 10—REQUIRED—CREDITS 2—PREREQUISITE: LA I

All sophomores are required to take this two-trimester course, which continues to develop students reading, writing, listening, and speaking skills. Units that will be covered include personal narrative, the novel, public speaking (informative, entertainment, persuasive), drama, and poetry. In addition students will work on developing their research and analytical skills.

*LANGUAGE ARTS III—GRADE 11—CREDITS 2—PREREQUISITE: LA II

This is a two-trimester course recommended for students who may be going on to college. American literature is the primary focus for analysis of style, content, and techniques of writing. Students will be exposed to a variety of literature starting with Native American literature and continuing up to the Modern time period. Continued vocabulary development, as well as sentence, paragraph, and essay writing are also components of this course. Students will continue to develop their research skills through a research project over the Harlem Renaissance. In addition, students will read, write, and work independently to create a portfolio of learning experiences.

*LANGUAGE ARTS IV—GRADE 12—CREDITS 1—PREREQUISITE: LA III

LA IV is a one-trimester course designed to arm the students' with the skills to read and analyze challenging texts as well as write well-developed arguments with in depth analysis and evidence. In addition, class discussions will be student led. This course focuses on European literature. LA IV is a recommended prerequisite for Composition I, Composition II, and Introduction to Literature.

READING ELECTIVES:

INDIVIDUALIZED READING—GRADE 10-12—READING ELECTIVE—CREDITS 1

This course is for students who want to explore literature. Students will be guided individually on their choice of literature to further than language development, while keeping the students' interest in mind to develop an appreciation for reading. After reading a chosen book, the students will complete a book form and an extension project over the reading. Students will conference with the teacher once a week.

*MYTHOLOGY—GRADE 10-12—READING ELECTIVE—CREDITS 1

This trimester long course will introduce students to classic Greek mythology. Students will develop their reading, writing, and speaking skills through the study of various aspects of mythology. Areas of study may include the *Illiad*, the *Odyssey*, the gods, heroes, love stories, the Trojan War, *Oedipus*, and *Antigone*.

*GREAT BOOKS I—GRADE 10-12—READING ELECTIVE—CREDITS 1

In this class students will study a variety of classic novels to prepare them for the college literature or humanities classes. Students will analyze author styles, characters, and themes as well as develop literary analysis skills. Novels studied may include *Of Mice and Men*, *Flowers for Algernon*, *The Call of the Wild*, *Taming of the Shrew*, or *Great Expectations*.

WRITING ELECTIVES:

***CREATIVE WRITING—GRADE 10-12—WRITING ELECTIVE—CREDITS 1**

Creative writing is designed to expose students to the process and techniques involved in the creation of short stories, plays, poetry, and creative non-fiction. This class will use a Writer's Workshop style format.

TECHNICAL WRITING—GRADE 10-12—WRITING ELECTIVE—CREDITS 1

This is a trimester long course. This class introduces students to technical writing practices and helps them develop the skills to simply and effectively communicate technical concepts. Students will learn how to organize and express facts and ideas through the written word. Students will also develop their skills in audience analysis, informative and explanatory writing, and research. Areas of focus may include writing letters, memos, e-mail, reports, instructions, resumés, brochures, newsletters, fliers, web pages, PowerPoint presentations, and graphics.

SPEECH ELECTIVES:

SPEECH—GRADE 10-12—SPEECH ELECTIVE—CREDITS 1

This is a trimester long course. Students will develop their skills in writing, conducting research, and delivering speeches for a variety of purposes and audiences. Potential speech types include informative, persuasive, demonstration, entertainment, and impromptu. Students will also focus on analyzing their audience and the components for delivering a speech.

DRAMA—GRADE 10-12—SPEECH ELECTIVE—ODD YEARS—CREDITS 1

This is a trimester long course. Students will develop their reading, writing, and speaking skills through the fundamentals of drama. A variety of activities including acting, reading, performing, and viewing drama are all aspects of this course. In addition, students will work collaboratively to develop, write, direct, and/or perform a drama.

DEBATE—GRADE 10-12—SPEECH ELECTIVE—EVEN YEARS—CREDITS 1

In this class students develop critical thinking and analytical skills along with logic and impromptu speaking techniques to defend opposing sides of social issues. Students will use research skills to develop their arguments.

SCIENCE

PHYSICAL SCIENCE - GRADE 9 - REQUIRED - CREDITS 2

Physical science is an introduction to 2 main disciplines of Science – Chemistry and Physics. One trimester is devoted to Chemistry and the other to Physics. A student will work about 50-60% of time in the laboratory to explore and develop.

BIOLOGY - GRADE 10 - REQUIRED - CREDITS 2

The main objective of Biology is to study the life processes of organisms. Biology class will emphasize hands-on activities as well as research. Topics covered include life characteristics, cell structure and function, genetics and heredity, microbiology, classification, plant and animal structure and function, and ecological concepts.

SCIENCE SURVEY-GRADES 11-12-[PREREQUISITE BIOLOGY]-CREDITS 2

The main objective of this course is to study a variety of science topics not covered in other classes. Topics may include: earth science, astronomy, ecology, weather, environmental studies, careers, individual research topics, building for strength, and field experiences.

CHEMISTRY - GRADE 11-12 - ELECTIVE - CREDITS 2

The main objective of Chemistry is to study the chemical processes of matter with emphasis on measurements and problem solving, chemical composition of matter, atomic structure, elements, periodic table, chemical bonding, chemical equations and reactions, stoichiometry, and phases of matter. An introduction to solutions and acids and bases will conclude the course. Chemistry involves laboratory experimentation to introduce and develop concepts in class. A scientific calculator is a must for a Chemistry student!

ADVANCED CHEMISTRY - GRADE 12 - ELECTIVE - CREDITS 2

Advanced Chemistry begins with a review of Chemistry. The class is very lab-orientated. A student will spend at least 70% of his/her time working in lab. Solutions and acids and bases will be a great emphasis. Titrating will be the major new lab skill learned. This class is for a successful Chemistry student. It is fast paced and requires dedication.

ANATOMY & PHYSIOLOGY - GRADE 11-12 - ELECTIVE - CREDITS 2

In Anatomy & Physiology, emphasis is placed on principles and processes related to structure and function of the body systems. This course is designed to help students prepare for higher education and further their studies in an area of biological interest, or to enter a health-related profession. Instruction is presented in the forms of discussions, computer work, and laboratory activities, (which includes the dissection of a variety of specimens). Evaluation takes the form of tests, quizzes, laboratory activities, daily work (which includes color plates), reports and class participation.

PHYSICS - GRADE 11-12 - ELECTIVE - CREDITS 2

The main objective of Physics is to study the physical processes of matter with major emphasis on the physical structure and applications of matter and energy such as: motion, dynamics, heat, light, sound electricity, gas laws, and measurement. Physics is a laboratory course and a student will spend up to 40 percent of his/her time working in the laboratory. It is recommended that students have at least a "C" or better in Algebra I to take Physics because solving algebraic equations is essential for this course.

MATHEMATICS

CONSUMER MATH – GRADE 10-12 – ELECTIVE – CREDITS 1

Consumer Math is offered as a terminating math course. The objective is to review basic math skills that are essential in everyday adult living and work with applications of these skills to consumer topics. Topics of study include banking procedures, budgeting, interest payments, measurement, insurances, use of credit cards, personal income, general purchasing, stocks and bonds, household expenses, tax returns, consumer credit and graph interpretation.

PRE-ALGEBRA – GRADE 9-11 – ELECTIVE – CREDITS 2

Pre-Algebra is designed to solidify arithmetic skills needed in order to be successful in Algebra and other mathematics classes. Topics covered include operations with decimals and fractions, ratios, proportions, and percents, introduction to solving linear equations, data analysis and probability and inequalities and introduction to basic Geometry. A scientific calculator is required. Students must obtain a "C" or above or obtain the instructor's approval in order to take Algebra.

ALGEBRA – GRADE 9-12 – ELECTIVE – CREDITS 2

Algebra establishes the groundwork for the study of higher-level mathematics classes. Primary topics studied are linear equations, inequalities, graphing techniques, exponents, radicals and polynomials. Basic objectives are to help the student (1) understand the structure of Algebra, (2) apply Algebra topics to problems solving, and (3), prepare for Geometry. A scientific calculator is required. Students must obtain a "C" or above in Pre - Algebra or obtain the instructor's approval in order to take Algebra.

GEOMETRY – GRADES 9-12 – ELECTIVE – CREDITS 2

Geometry is a course for college bound students. Topics covered include points, lines, segments, planes, triangles, polygons, circles, and solid figures as well as their many properties. The first trimester of Geometry places emphasis on logical reasoning and proof. The second trimester places emphasis on relationships and properties of figures. Algebra I skills are used throughout the course. A scientific calculator is required. Students must obtain a “C” or above in Algebra or obtain the instructor’s approval in order to take Geometry.

ALGEBRA II – GRADES 10-12 – ELECTIVE – CREDITS 2

Algebra II is an extension of the fundamental principles of Algebra within the domain of natural numbers and expanding to include complex numbers. Topics include linear equations, matrices, quadratics, polynomial functions, rational functions, exponential functions and logarithmic functions. A graphing calculator is required. A student needs a “C” or above in Geometry or instructor’s approval to take Algebra II. Completion of Algebra II is required for admittance into four-year universities.

PRE-CALCULUS – GRADE 11-12 – ELECTIVE – CREDITS 2

Pre-calculus is an in-depth study of polynomial, rational, logarithmic, exponential, rational, and trigonometric functions. Using technology, students will explore equations and graphs to find critical points. This class is for college bound students who plan to enter a field of study that includes mathematics or mathematical concepts. A graphic calculator is required. A student needs a “C” in Algebra II or instructor’s approval to take Pre-Calculus.

CALCULUS – GRADE 11-12 – ELECTIVE – CREDITS 2

Calculus is for the college bound student who plans to take Calculus at the college level. Topics covered include Pre – Calculus review, differentiation, integration, and limits, as well as applications of these topics. This class is not intended to replace Calculus at the college level. A graphing calculator is required. Students must obtain a “C” or above in Pre – Calculus or obtain the instructor’s approval in order to take Calculus.

SOCIAL STUDIES

UNITED STATES HISTORY- GRADE 9- REQUIRED- CREDITS 2

A two-trimester course encompassing material from Pre Civil War America through World War II. This course emphasizes important people, places, and events that have affected our country’s history. A lot of the focus will be on events such as wars, depressions, rebuilding, and revolutions and how those, and the people involved, shaped our country.

WORLD GEOGRAPHY – GRADE 10– REQUIRED/ELECTIVE – CREDIT 1

Geography is the study of the interaction between people and their environments. Geography therefore looks at the world through the concepts of location, place, human–environmental interaction, movement, and region.

SOCIAL PSYCHOLOGY – GRADE 10 – REQUIRED – CREDIT 1

Behavioral sciences include, but are not limited to, the areas of sociology and psychology. In addressing these disciplines the actions and reactions of humans are studied through observational and experimental methods. In the class the issues of behavior, changes in society, current social issues, social institutions, the process of human development, and socialization will be addressed. Knowledge about how these issues can be observed, measured, and analyzed can help students gain a better understanding about their own behaviors and the behaviors of others.

ECONOMICS – GRADE 11-12 – REQUIRED – CREDIT 1

Economics addresses the production, distribution, and consumption of goods and services. The concept of scarcity is understood to mean that available resources are insufficient to satisfy the wants and needs of everyone. Economics is therefore founded upon the alternative use of available resources and the study of choices.

AMERICAN GOVERNMENT – GRADE 11-12 – REQUIRED – CREDIT 1

Political science is the study of power and authority through the examination of political processes, governmental institutions, and human behavior in a civil society. In this context the study of civics is understood to include the form and function of government. Civic literacy encompasses civics but also addresses the individual's social and political participation. This course stresses that, as young adults, you can participate in the local, state, and national governmental process and that there are many levels of participation.

CRIMINAL JUSTICE – GRADE 10-12 – ELECTIVE – CREDIT 1

This course is an overview of the criminal justice system. It provides the philosophical and historical background of the agencies that compose the criminal justice system . It focuses on the development of justice and law, crime and punishment, the administration of laws, the agencies' functions, career orientation and public relations.

HISTORY OF WARFARE – GRADE 10-12– ELECTIVE – CREDIT 1

In this course students will have the opportunity to take a closer historical look at how war has changed our society both on and off the battle field. The class will take a closer look at the inventions that were developed during wartime, the medical advancements, the changes in strategy and tactics of war, the social changes, and the impact on society as a whole.

CURRENT EVENTS I – GRADE 9-12 – ELECTIVE – CREDIT 1

Current Events is designed to acquaint students with topics of international, national, state, and local interests. The study of these topics will be through newspapers, news magazines, and texts. Also, news programs and documentaries are used. Course expectations include participation in discussion, presentations of readings, news summaries, projects, and presentations.

CURRENT EVENTS II– GRADE 9-12 – ELECTIVE – CREDIT 1

Current Events is designed to acquaint students with topics of international, national, state, and local interests. The study of these topics will be through newspapers, news magazines, and texts. Also, news programs and documentaries are used. Course expectations include participation in discussion, presentations of readings, news summaries, projects, and presentations.

MODERN AMERICAN HISTORY- GRADE 11-12- ELECTIVE- CREDIT 1

A one trimester course beginning with the Civil Rights movement and covering until very recent history such as 9/11. This course, in covering more recent subjects, will be more relatable to students and be easier to relate to the development of social and political orders that now exist. You must have taken both United States History courses to be in this class.

WORLD HISTORY I- GRADE 9-12- ELECTIVE - CREDIT 1

A one-trimester course beginning with early humans through the Renaissance. The purpose of this course is to better equip the student to live in his/her present social, cultural, and political environment by studying chronological events of history and the development of social and political orders that now exist.

WORLD HISTORY II- GRADE 9-12- ELECTIVE- CREDIT 1

A one-trimester course beginning with 1915 through current times. As with World History I, the purpose is to better equip the student by studying chronological events of history and development of social and political orders that now exist.

INDIVIDUALIZED SOCIAL STUDIES – GRADE 11-12 – [PREREQUISITES: JUNIOR STANDING; COMPLETED 4 SOCIAL STUDIES CLASSES WITH A 3.0 GPA OR HIGHER & APPROVAL BY BOTH SOCIAL STUDIES TEACHERS]

ELECTIVE – CREDIT 1

This course is designed for students to have an opportunity to explore the social sciences in relation with their own interest. This is the highest-level social studies class. In this class the students will choose the social studies topics they wish to study, identify what they would like to discover, and the way they will share out what they find. They will be using all aspects of the social sciences.

ART

ART 101 - GRADE 9-12 - ELECTIVE – CREDIT 1

Art I is an introductory class for high school students who have not taken other Art classes. It introduces students to a variety of art materials and techniques used in design, drawing, painting, printmaking, clay, and computer art. Art I is designed to give students a broad background that will provide them with the knowledge needed to be successful in other art classes.

DESIGN/CLAY I - GRADE 9-12 - ELECTIVE - CREDIT 1

This class works with design principles as they relate to the building of clay projects. Students will construct five or six major projects using different clay methods. They will be instructed in the use of clay glazes and firing of the kiln. Students will also have time to work on the potter's wheel.

DESIGN/CLAY II - GRADE 9-12 - ELECTIVE – CREDIT 1 – PREREQUISITE: DESIGN/CLAY I WITH A GRADE OF B- OR BETTER.

Design/Clay II is a continuation of the first trimester of Design/Clay. Students need to have completed, with a B- grade, the beginning level of Design/Clay. Students will construct several major clay projects. They will work with creating handles and lids to pots thrown on the wheel as well as working with hand methods of constructions. Limited to one section of 16 students.

GRAPHIC DESIGN - GRADE 9-12 - ELECTIVE - CREDIT 1

This class works with design principles as they relate to graphic information. Students will study the use of trademarks as a positive design identity. Each student will create their own identity mark and use it as a letterhead, poster, or T-shirt design. Students will also be asked to create designs that will be used for the school (After Prom T-shirt designs, posters for school productions, etc.) Much of the design work will be using computers, digital camera and web design.

GRAPHIC DESIGN II - GRADE 9-12 - ELECTIVE - CREDIT 1

This class works with design principles as they relate to graphic information. Students will study the use of visual media in the areas of print and digital design. Students will create digital designs to be used by the school and the community. Web design and flash animation will also be a focus for the second half of class. Much of the design work will be using computers, digital cameras, and web design.

DRAWING I - GRADE 9-12 - ELECTIVE - CREDIT 1 - RECOMMENDED ART I

This class is a beginning level for students wanting to develop better drawing skills. Students will work with contour and gesture style drawing. They will experience pencil, ink, charcoal, livestock markers and pastel materials. They will also be responsible for keeping a drawing sketchbook.

DRAWING II - GRADE 9-12 - ELECTIVE - CREDIT 1 - PREREQUISITE DRAWING I

Students need to have completed the beginning trimester of Drawing I as this class is an advanced level of the beginning class. They will use pencil, ink, charcoal, livestock markers and pastel materials. They will also be introduced to artists and different periods of Art history. Each student will be expected to keep a drawing sketchbook.

PAINTING I - GRADE 9-12 - ELECTIVE - CREDIT 1 - RECOMMENDED ART I

This class is a beginning level for students wanting to develop better painting skills. Students will work with realistic and abstract methods of painting and drawing. They will experience acrylic, tempera, watercolor and some oil paint materials. They will also be responsible for keeping a painting sketchbook.

PAINTING II - GRADE 9-12 - ELECTIVE - CREDIT 1 - PREREQUISITE PAINTING I

Students need to have completed the beginning trimester of Painting 1 as this class is an advanced level of the beginning class. Students will use acrylic, tempera, watercolor and some oil paints. Students will also be introduced to artists and different periods of Art history. Each student will be expected to keep a painting sketchbook.

PHOTO DESIGN I - GRADE 9-12 - ELECTIVE - CREDIT 1 - LIMIT 2 SECTIONS - 30 STUDENTS - SENIORS HAVE PRIORITY. - RECOMMENDED B- OR BETTER TO TAKE PHOTO DESIGN II

This class works with design principles as they relate to digital photography and design problems. Students will learn digital photography techniques and be introduced to Adobe Photo shop as a photo-editing tool. They will use these tools and new skills to create digital prints that express the student's creativity and personal expression.

PHOTO DESIGN II - GRADES 9-12 - ELECTIVE - CREDIT 1 - LIMIT 2 SECTIONS - 30 STUDENTS - SENIORS HAVE PRIORITY. - PREREQUISITE: PHOTO DESIGN I

This is a continuation of the Photo Design 1. An "A" or "B" grade should have been earned in Photo Design 1 for students to be eligible to take Photo Design 2. Students will be given more difficult photo problems and introduced to different types of software to solve these problems. They will also look at current trends in photography, and job opportunities in the current work force.

SPANISH

SPANISH I - GRADE 9-12 - ELECTIVE - CREDITS 2

This is the foundation course in Spanish language. Spanish I will stress the development of skills needed in speaking, writing, reading, and oral communication.

SPANISH II - GRADE 10-12 - ELECTIVE - CREDITS 2 - PREREQUISITE: SPANISH I

Spanish II will start with a brief review of material covered in first year Spanish. Emphasis will be placed on learning new verb tenses and constructions, along with increasing our vocabulary. Besides concentrating on writing, reading, and listening skills, we will begin using the target language to communicate orally within the classroom.

SPANISH III - GRADE 11-12 - ELECTIVE - CREDITS 2 - PREREQUISITE: SPANISH I AND II

Spanish III will be a continuation of Spanish II. Emphasis will be placed on oral and written expression. There will be a more in-depth study of the various tenses. Students will be doing a variety of small group and individual projects rather than just focusing on the text. The target language will be used more within the classroom.

SPANISH IV - GRADE 12 - ELECTIVE - CREDITS 2 - PREREQUISITE: SPANISH I, II, & III

Spanish IV is an advanced course, which is a continuation of Spanish III. Students will be "fine-tuning" their previously learned grammatical skills and acquiring more grammatical concepts at an advanced level. They will use the target language to study the culture of the Hispanic people and to acquire a more in depth understanding of the culture.

BUSINESS EDUCATION

FRESHMAN COMPUTERS - GRADE 9 - REQUIRED - CREDIT 1 - PERKINS

This one trimester required freshman course is designed so that a student will learn the basic fundamentals of formatting everyday documents. Basic word processing, Excel, Access, Publisher concepts will be covered throughout the course. Students will be exposed to: Career exploration using the Choices program.

HUMAN RELATIONS/CAREERS - GRADE 11 REQUIRED - 1 TRIMESTER CLASS

The study of how people satisfy both personal growth needs and organizational goals. Human Relations looks at what can be done to anticipate problems, resolve them, or prevent them from happening. Emphasis is on practical knowledge that can be applied at work or at home. Significant developments in recent years have increased the importance of interpersonal skills in almost every type of setting; these trends provide support for the necessity of acquiring competence in human relations. Careers will help you identify or clarify your present talents, skills, values and potentials needed as the building blocks in selecting a career that best fits your needs. This awareness may help you realize your full career potential.

Focus on the 21st Century Employment Skills

PERSONAL FINANCE- GRADE 12- REQUIRED- 1 CREDIT - (A STUDENT MAY TAKE THIS COURSE TO MEET MATHEMATICS REQUIREMENTS FOR GRADUATION). PERKINS

Topics relevant to personal finance for everyday life include, Savings, Investing, Living on your own, Consumer activities, Credit, Identity protection, Buying a house, Buying a car & Insurance.

ACCOUNTING I – GRADE 11-12 - ELECTIVE - CREDITS 2, PERKINS

The purpose of this course is to acquaint the student with the basic principles and methods of establishing an accounting system for a small business. Terminology, forms, good business habits and neatness used in double-entry accounting are stressed. Workbook problems, practice sets, and computer, where possible, will be used to achieve the course goals. This course should be taken by anyone who plans to have his or her own business, students considering a business or accounting major in college, or students planning to work in the business world.

INTRO TO BUSINESS - GRADE 9-12 - ELECTIVE - CREDIT 1- PERKINS

This entry-level course is designed to cover information that will be useful to students in their daily lives and to give them a background for other business and marketing courses. A variety of topics are studied, such as: the world of work which includes doing a search of student's interests on the computer program "Choices"; Computer App II; writing the job application letter; resume; and filling out the job application. Money and banking, living in the computer age, the basics of our economic system and how it affects business are also major topics studied. Speakers, films, and simulations are used to add reality and interest to the course.

EXPLORING COMPUTER SCIENCE [ECS 1] - GRADE 10-12 - ELECTIVE - CREDIT 1

ECS 1 provides students with an introduction to computer science principles. ECS 1 consists of three units. Assignments and instruction are inquiry based. Units utilize a variety of tools and culminate with a creative final project. Units covered are **Human Computer Interaction** in which students learn how computer components work; **Problem Solving** in which students become computational thinkers, and **Web Design** where students will take the role of a developer by expanding their knowledge of programming and web page design.

YEARBOOK – GRADE 10-12 – ELECTIVE – CREDIT 1 OR 2

This course is responsible for creating the Dike-New Hartford School annual. During the course students will learn Photoshop techniques, how to take and edit digital pictures, and how to sell advertisements. In addition students will design and create the layout for the pages in the yearbook.

FAMILY AND CONSUMER SCIENCE

FOODS I - GRADE 9-12 - ELECTIVE - CREDIT 1 - PERKINS

This class is for students interested in developing basic culinary skills and knowledge. Students will learn kitchen safety and sanitation procedures, how to read and alter recipes, and how to apply the MyPlate dietary guidelines for a healthy lifestyle. Students will gain hands-on experience in the preparation of vegetables, fruits, eggs, meats, dairy, pastas/cereals, and baked products.

FOODS II- GRADE 9-12 - CREDIT 1 (PREREQUISITES: FOODS 1)

In this class students will master basic culinary skills by creating more complicated dishes including yeast breads, soups, sauces, salads, casseroles, cakes, and pastries. Students will create meal plans on a budget and examine food issues in society including the consumption of fast food, eating disorders, and hunger.

FOODS III - GRADES 9-12---CREDIT 1 (PREREQUISITE: FOODS II)

This class is for students who are interested in exploring careers related to culinary science, human nutrition, and the food service industry. Students will learn food presentation techniques, explore international dishes, and learn the components of running a restaurant or catering business. Students will also create specialized diets and have experiences in nutrition education.

CLOTHING & FASHION I AND II - GRADE 9-12 - ELECTIVE-CREDIT 1 EACH - PERKINS

Sewing classes offered would include basic construction of 3-4 projects. Each student will plan an individual program and sewing projects to meet his/her needs and individual skill levels. Advanced Clothing will require more projects with greater detailed construction. Careers in the field of fashion merchandising will be explored. It is recommended that students pass Clothing I with at least a C to be admitted into Advanced Clothing.

HOUSING AND INTERIOR DESIGN - GRADE 10-12 - ELECTIVE - CREDIT 1

This trimester course is divided into two basic areas. The first six weeks is spent in the study of housing needs, styles, selection of housing, buying and/or rental of housing units. The second half of the trimester deals primarily with interior design. Selection of furnishings and appliances, application of the principles and elements of design, and drawing of housing plans are major projects included in the course.

CHILD DEVELOPMENT I - GRADE 10-12 ELECTIVE - CREDIT 1 PERKINS

This course will focus on pregnancy through the first year of a child's life. Content will include healthy relationships, sexual health, prenatal care and development, childbirth, and infant development during the first year of life. Students will have the opportunity to experience an empathy belly and care for a Reality Works Real Care Baby.

CHILD DEVELOPMENT II - GRADE 10-12 ELECTIVE - CREDIT 1 PERKINS

This course will focus on the growth and development of children from toddler to elementary school age. Students will have the opportunity to observe and interact with children of various ages. Topics will also include functions of today's families, parenting issues, and careers that involve working with children.

LIFE SKILLS - GRADE 11-12 - ELECTIVE - CREDIT 1 - PERKINS

The purpose of this course is to develop essential skills necessary for all young adults to live independently. The units are as follows: job skills, financial management, insurance, consumer practices for buying goods and services, choosing and preparing convenience foods, housing options, and clothing care. Each unit will include a simulation activity and/or computer application and guest speakers.

INDUSTRIAL TECHNOLOGY

INTRODUCTION TO ENGINEERING DESIGN - GRADE 9-12 - ELECTIVE - CREDITS 2 - PREREQUISITE: ALGEBRA I OR TAKING ALGEBRA I

Students use a problem-solving model to improve existing products and invent new ones. Using sophisticated three-dimensional modeling software, students communicate details of the products. Emphasis is placed on analyzing potential solutions and communicating ideas to others.

College credit may be obtained by grade and score on PLTW exam.

DRAFTING TECHNOLOGY - GRADE 9-12 - ELECTIVE - CREDIT 1 - PREREQUISITE: NONE, (STUDENT MAY TAKE THIS COURSE TO MEET MATHEMATICS REQUIREMENT FOR GRADUATION) PERKINS

Drafting Technology is a course, which teaches students basic, drafting fundamentals and construction. Students will become familiar with drafting methods, develop and practice drafting skills and techniques and draw using computer aided design (CAD) software.

WOOD TECHNOLOGY - GRADE 9-12 - ELECTIVE - CREDIT 1 - PREREQUISITE: NONE

Wood Technology was designed for students who love to work with wood. Students will learn and understand wood materials, processes, tools and machinery. The course is primarily hands-on learning in the wood laboratory; however, class discussions and activities are also emphasized. Two laboratory projects will be assigned.

WOOD TECHNOLOGY II – GRADE 10-12 – ELECTIVE CREDIT 1 – PREREQUISITE: WOOD TECHNOLOGY.

Recommended C+ or better in Wood Technology. This course is designed to give students a chance to advance their woodworking skills. Students will be required to plan and draw detailed plans for a woodworking project. Students should be familiar with sketching, orthographic projection and blue print reading. Furniture and cabinet making projects will be emphasized in Wood Technology II.

METALS I - GRADES 10-12 - ELECTIVE - CREDIT 1 - GENERAL, TECHNICAL, PERKINS

Welding: This has 3 areas of learning; gas, electric arc, and Mig welding. Students learn to do different welds on steels, iron, and aluminum and cut different thickness of metals with an oxyacetylene flame. Foundry: Students molds a pattern in sand and then casts it out of aluminum or brass. They work with 5 different patterns in foundry casting. It is recommended students take Introduction to Drafting prior to Metals I.

METALS II - GRADES 10-12 - ELECTIVE - CREDIT 1 - GENERAL, TECHNICAL, PERKINS

Recommended C+ or better in Metals I. This course, bench metal, is designed to give students a chance to work with different groups of metals in reforming. They will work with spot welding, pop rivets, soldering, tap and die and forming edges. Machine operation: In this area students operate a 10-inch or 11-inch engine lathe and a vertical - horizontal milling machine. Students will work with different settings and methods to cut from an engine lathe. They work with blue print drawings, micrometers, gauges, and different high tech measuring gauges for finishing a project. The machine requires the student to learn different cutting bits. It is recommended that student take Introduction of Drafting prior to Metals II.

CONSTRUCTION TECHNOLOGY - GRADE 9-12 - ELECTIVE - CREDIT 1 - PREREQUISITE: NONE, (STUDENT MAY TAKE THIS CLASS TO MEET MATHEMATICS REQUIREMENTS FOR GRADUATION)

The Construction Technology course is designed to introduce skills, knowledge, environments, and workers of the construction industry. Students will study the importance and impact of construction upon

society, plus steps involved in designing, building, selling and maintaining structures. Some sample activities will include pouring cement/concrete slab, building a block foundation wall and designing and building a utility shed.

MECHANICAL DRAFTING I - GRADE 10-12 - ELECTIVE - CREDIT 1 - PREREQUISITE: DRAFTING TECHNOLOGY I, PERKINS

Mechanical Drafting is one trimester in length. It is divided into six parts; threads - pictorial illustration precision and tolerance drawings - gears and matching assembly parts and CAD drafting. Students will complete a full set of assembly drawings and reproduce them. The course is designed to use a number of different textbooks.

MECHANICAL DRAFTING II - GRADE 10-12 - ELECTIVE - CREDIT 1 - PREREQUISITE: MECHANICAL DRAFTING I - RECOMMENDED C+ OR BETTER, PERKINS

Advanced Mechanical Drafting uses drafting fundamentals learned in Drafting Technology. Students will be introduced to advanced level drafting techniques, such as auxiliary and sectional views. CAD will be covered in more detail and used throughout the course.

ARCHITECTURAL DRAFTING - GRADE 10-12 – ELECTIVE - CREDITS 2 -1 YEAR - PREREQUISITE: DRAFTING TECHNOLOGY - RECOMMENDED C OR BETTER, PERKINS

This course provides basic information necessary for planning various types of residential homes. Students will be involved with designing, drafting and revising a residential design of their choice. A 1/4” scale model of the design will also be created. CAD software is offered to those students who wish to use it for their design.

EXPLORATIONS IN TECHNOLOGY - GRADE 9-12 – ELECTIVE – CREDIT 1

Students enrolled in Explorations of Technology will be introduced to the four clusters of technology; communication, construction, manufacturing and energy/power/transportation. Hands-on activities will include building a solar powered car, testing the aerodynamics of vehicles, sending and receiving signals with lasers and building a rocket from scratch.

PRINCIPLES OF ENGINEERING (OFFSITE AT GRUNDY CENTER) – GRADE 10 – 12 – ELECTIVE – CREDIT 1 (2 TRIMESTERS OFF-SITE)

Students explore technology systems and manufacturing processes to find out how math, science, and technology help people. **College credit may be obtained by grade and score on PLTW exam.**

INTRODUCTION TO MIG WELDING [COLLEGE LEVEL COURSE THROUGH HCC] (WEL 104)

This course is an introduction to the Gas Metal Arc Welding process, also known as MIG Welding and Flux Cored Arc Welding. Topics include safety, theory of operation, advantages of both processes, types of power sources, types of wire electrodes and shielding gases, types of metal transfer, types of joints, minor equipment maintenance and basic welding terminology. Shop practice will include welding the five basic joints, with both welding processes, on mild steel in the flat and horizontal positions.

VOCATIONAL AGRICULTURE

VOCATIONAL AGRICULTURE – GRADE 9-12- ELECTIVE - CREDIT 1-2

Vocational Agriculture classes are offered through a sharing agreement with both Hudson High School and Grundy Center High School. Students register for agriculture classes by contacting our high school counselor to coordinate schedules and class offerings. Vocational Agriculture classes are at the respective school districts and students provide their own transportation. Since Dike-New Hartford pays tuition for our students to attend these classes students may not drop a Vocational Agriculture class(es) once the school year has begun.

NETWORK ADMINISTRATION

NETWORK ADMINISTRATION - GRADE 9 -12 – ELECTIVE - CREDIT 1-2

Network Administration classes are offered through a sharing agreement with Hudson High School. Students register for classes by contacting our high school counselor to coordinate schedules and class offerings. Classes are at Hudson and students provide their own transportation. Since Dike-New Hartford pays tuition for our students to attend these classes students may not drop once the school year has begun.

PHYSICAL EDUCATION AND HEALTH

PHYSICAL EDUCATION - GRADE 9-12 - REQUIRED - CREDIT .25

Physical Education is a required class for students at all grade levels. To meet Title IX regulations, all classes are offered as co-educational. The goal of the program is to expose students to as wide a variety of both team sports (i.e. basketball, volleyball, etc.) and lifetime activities (i.e. golf, tennis, individual fitness, etc.) as possible and to promote a healthy lifestyle which includes fitness training. Daily timed runs are required, as well as fitness testing in the fall and spring.

HEALTH I - GRADE 9 - REQUIRED - CREDIT 1

Health is a state-mandated course and required at our 9th grade level. Class is set up to cover important present-day issues in the field of Health through active learning. The purpose of each topic is to fulfill the 10 topic areas supplied by the State and to familiarize students with background information and facts about each topic. Topics covered include: Stress Across the Life Cycle, Cancer, Youth Violence: Awareness and Prevention, Codependency and Addictions, Abstinence Plus, Health Conditions/Concerns, and Nutrition updates. In each unit, students will become familiar with resources available for health-related problems and, also, with careers in certain health areas. The entire Health curriculum is designed to present knowledge and skills to students of DNH.

HEALTH II/HEALTH ACROSS THE LIFE CYCLE - GRADE 10-12 - ELECTIVE - CREDIT 1-

PREREQUISITE: HEALTH

Health II is an elective, activity-oriented, and service-learning class designed to present lifelong knowledge and skills to students and share this knowledge with others through service-learning projects. Students are required to participate in activities and service-learning projects for all or parts of the following units: Grief Education; Relationships: Knowing the Good From the Bad; Homelessness and Poverty; Aging; Tolerance; Teenage Sexual Behavior; Life After High School which includes such topics as the dangers of tattooing and piercing, nutrition, and the importance of exercise, sleep, time management, and stress management; and one class project. Health II is designed to keep DNH students actively involved in the learning process.

MUSIC

VOCAL MUSIC - GRADE 9-12 - ELECTIVE - CREDITS 3 (ALL THREE TRIMESTERS)

Mixed Chorus provides students the opportunity to sing music from various time periods and styles. Each student receives private or small group lessons. Chorus students may participate in Show Choir, and Jazz choir (auditioned groups), small ensembles and solos. Vocal groups perform in five concerts per year and attend state large group contest. Chorus members also perform at Commencement. A student's letter grade is based upon concerts/performances, lessons and daily participation. A letter may be earned by chorus students after completing certain criteria set by the instructor. Musicals are done every other fall. It is recommended that students who plan on participating in the musical sign up for chorus.

INSTRUMENTAL MUSIC - GRADE 9 -12- ELECTIVE - CREDIT 3 (ALL THREE TRIMESTERS)

Senior high band provides a variety of musical experiences for the student. Students in band receive a small group lesson every cycle. Marching band performs at all home football games. All band members perform three concerts a year and participate in state large group contest. Solo/Ensemble contest is optional. Students are required to participate in pep band and perform at all home basketball games. Band students also perform at Commencement and local parades. Jazz Band is selected by audition from the full band and performs at concerts, civic events, jazz contest, and Cabaret. Students may earn letter awards by completing certain criteria set by the instructor.

MUSIC THEORY AND APPRECIATION - GRADE 11-12 - ELECTIVE - CREDIT 1

This course is for students who desire to study music in more depth. This is a nonperformance-based class. Students will learn music theory including key signatures, scales, chordal structures and relationships and terminology. Aural (listening) skills and music dictation will be practiced. In addition, history and music styles will be studied. INSTRUCTOR APPROVAL

HAWKEYE COMMUNITY COLLEGE CONTRACTED CLASSES

SPC 101 FUNDAMENTALS OF ORAL COMMUNICATION

This course presents elements of the oral communications process with emphasis in developing public speaking skill. Students will be involved in activities that provide opportunity for the understanding and improvement of their oral communication skills.

ENG 105 COMPOSITION I

Composition I develops students' writing skills by emphasizing fluency, organization, the use of supporting details, and research techniques. Writing is approached as a recursive process that includes prewriting strategies, drafting, revising, and editing. The course helps students define a sense of audience and purpose in their writing.

ENG 106 COMPOSITION II

Composition II aims to review and extend writing principles learned in Composition I to analytical, argumentative, and research-based writing. This course emphasizes critical reading, evaluation, and precise and responsible source citation.

MAT 110 MATH FOR LIBERAL ARTS

This is a one semester liberal arts mathematics course that satisfies the minimum general education requirement for math. The course is designed to impart math skills which are helpful in everyday life as well as to expose students to areas of mathematics they may not have seen before. Topics include problem-solving skills, set theory, algebra, consumer mathematics, probability, and statistics. Other topics may be included. Lecture: 48 hours. Laboratory: 0 hours. Prerequisite(s): MAT063 Elementary Algebra or equivalent COMPASS score

MAT 156 STATISTICS

This course is a study of descriptive statistics including graphical representation, central tendency, correlation and regression, intuitive treatment of probability, and inferential statistics including hypothesis testing. Lecture: 48 hours. Laboratory: 0 hours. Prerequisite(s): Beginning Algebra, equivalent, or appropriate placement score

MAT 210 CALCULUS I (MUST HAVE A 27 ON ACT MATH OR A 51 TRIG ON COMPASS)

This course is the first in a calculus sequence. The course covers topics including functions and their graphs, limits, derivatives and applications of differentiation, and integrals.

MAT 772 APPLIED MATHEMATICS (MUST HAVE 14 ON ACT OR 24 PRE-ALGEBRA ON COMPASS)

This course is designed to present basic facts of arithmetic including whole numbers, fractions, decimals, powers, roots, English and metric measurement, ratio-proportion, percents, introduction to algebra, and introduction to geometry. Instruction includes use of scientific hand-held calculators and emphasis placed on critical thinking, problem solving skills.

PSY 111 INTRODUCTION TO PSYCHOLOGY

This course provides an introduction to the study of behavior with emphasis in the areas of learning, cognition, motivation, personality, behavioral disorder, therapy, and social influence. An understanding of the impact of both theoretical perspectives and experimental evidence on the formulation of the science of human behavior is also stressed. Psychological theories and principles are utilized to explain and predict behavior. Lecture: 48 hours. Laboratory: 0 hours.

HIS 151 U.S. HISTORY TO 1877

This United States history course examines the country's Colonial experience, Revolutionary period, and 19th Century history through Reconstruction. The course includes political, economic, and social history of this period, as well as the development of American thought.

BIO 163 ESSENTIALS OF ANATOMY & PHYSIOLOGY

Introduction to Anatomy and Physiology is a class designed for students entering allied health fields as well as others who have a minimal background in the biological and physical sciences. The course will provide an introduction to the fundamentals of human anatomy and physiology beginning at the cellular level of organization and progressing through a comprehensive overview of the organ systems and with an emphasis on homeostasis. The lab component of the course will involve dissection of cats to view the similarities in the muscular systems of humans and felines.

AGH 221 PRINCIPLES OF HORTICULTURE (NO TEST SCORES REQUIRED)

This course provides students with an overall view of how man utilizes horticulture plant materials. Topics covered are fruits, vegetables, ornamental plants and their proper use and care. Proper culture and environmental conditions are also included.

AGA 114 PRINCIPLES OF AGRONOMY (NO TEST SCORES REQUIRED)

This course presents introductory principles of plant-soil-climate relationships in crop production, plant anatomy, crop plant classification and identification, crop physiology, climate, soils, soil water, tillage and seeding, plant breeding, seed and grain quality, weeds, insects, crop diseases, crop management, harvesting and storage. Global Positioning and Geographic Information Systems in crop systems is discussed.

AGS 113 SURVEY OF THE ANIMAL INDUSTRY (NO TEST SCORES REQUIRED)

This course introduces students to the species and breeds of domestic livestock and development of an appreciation for the principles of livestock production, and issues facing product marketing. Topics include: breeds, basic management, composition, evaluation, and marketing of farm animals and animal products; including beef and dairy cattle, horses, goats, poultry, sheep and swine.

HSC 113 MEDICAL TERMINOLOGY FOR HEALTH SCIENCES

This course presents the foundation necessary to develop a basic medical terminology vocabulary. Emphasis on the components of terms as related to each body system will be provided. The course further provides the student with the opportunity to properly spell, pronounce, and utilize medical terms. The utilization of a medical dictionary will also be a focus.

PNN100 NURSING ASSISTANT

This course is designed to meet the training requirements of the Omnibus Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident/client care. This course parallels PNN-132 Nursing Fundamentals I.

HSC INTRODUCTION TO HEALTH PROFESSIONS

This course introduces the student to the healthcare system and provides an opportunity to explore a wide variety of health careers/professions. Students will explore ethical and legal responsibilities within the healthcare system including expectations for professional behavior. This course will allow for certification in common healthcare requirements. (2 credits)

EMS114 EMERGENCY MEDICAL RESPONDER

This course provides the student with the necessary skills and knowledge to identify and treat life-threatening emergencies, wounds and fractures, medical and environmental emergencies and patient access and handling. This course utilizes a combination of classroom lecture and skills practice. (2 credits)

WEL 104 INTRODUCTION TO MIG WELDING

This course is an introduction to the Gas Metal Arc Welding process, also known as MIG Welding and Flux Cored Arc Welding. Topics include safety, theory of operation, advantages of both processes, types of

power sources, types of wire electrodes and shielding gases, types of metal transfer, types of joints, minor equipment maintenance and basic welding terminology. Shop practice will include welding the five basic joints, with both welding processes, on mild steel in the flat and horizontal positions.

GRA105 DRAWING & COMPOSITION

This course introduces the student to a variety of art-making materials and media, provides a broad range of drawing experiences designed to expand the student's artistic perception, and enhances the student's ability to develop appropriate art-based solutions to common graphic design problems.