

The Mission of Newton High School is to create and maintain a learning environment that ensures every student will attain a high level of growth and achievement, verified by objective measures supported by timely / appropriate teaching strategies and individual guidance.

This NHS Course Description Book is presented by the entire staff of Newton High School as a source of information for students and parents regarding the offered courses of study. Parents are encouraged to study the information contained herein and to assist their student in planning an appropriate high school program of studies.

Responsibilities of Students & Parents:

1. To be aware of all graduation requirements and to have a plan for meeting those requirements.
2. To review the established plan each year and check for completed graduation requirements.
3. To ensure that the student’s time spent at Newton High School is productive by choosing courses relevant to his/her academic and career interests while challenging his/her abilities.
4. To work with the Counseling Department in addressing academic or personal / social needs.
5. To be aware of the scheduling deadlines for adding and dropping courses.

Student Services

The administrative and counseling staff of the school is ready to assist in interpreting the provisions set forth in this booklet and in suggesting how they may fit individual needs and interests. If you wish assistance, come to the Student Services Office or call your counselor at 284-6280. Counselor extensions are:

Class of 2010 ext. 2229	Class of 2011 ext. 2233	Class of 2012 ext. 2231	Class of 2013 ext 2230
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REQUIREMENTS FOR GRADUATION

REQUIRED CREDITS		HONORS DIPLOMA	
Language Arts	4.0	Language Arts	4.0
Communications	.5	Communications	.5
Mathematics	3.0	Mathematics	4.0
		(Alg.I, Geometry, Alg. II)	
Science	3.0	Science	3.0
		(Biology, Chem. I, Physics)	
Social Science	3.0	Social Science	3.0
Physical Education/Health	1.5	Physical Education/Health	1.5
Fine Arts	1.0	Fine Arts	1.0
Computer Technology	1.0	Computer Technology	1.0
		World Language	2.0
Electives	7.0	Electives	4.0

TOTAL CREDITS FOR GRADUATION 24.0 AND SENIOR EXIT PORTFOLIO

The Senior Exit Portfolio

The Senior Exit Portfolio and an interview process are **REQUIRED** of all seniors as a graduation requirement. The portfolio consists of a resume, personal essay, transcript, academic accomplishments (including a reflective essay), honors and activities list, three letters of character reference, twenty hours of service learning, and an optional personal section. The individual student has ultimate responsibility for the completion and presentation of the Senior Exit Portfolio. Upon completion of the portfolio and interview, the student will receive .5 credit applied toward the 24 credits required for graduation.

Honors Diploma

Students must earn a minimum of twenty-four credits with an overall grade point average of **3.50** or above, and have taken additional prescribed curriculum to receive an Honor Diploma. The selection of class valedictorian and salutatorian will be made from the group of students who qualify for an Honor Diploma.

Credit Information

All students will enroll in at least seven courses in addition to seminar each semester.

Promotion Requirements:

Grade 9 to grade 10	must have passed at least 5 credits
Grade 10 to grade 11	must have passed at least 11 credits
Grade 11 to grade 12	must have passed at least 17 credits
Grade 12 to graduation	must pass the required 24 credits & complete the Senior Exit Portfolio

Fine Arts Credit

The fine arts credit may be selected from the following: all art courses, all instrumental courses, all vocal music courses, all world language courses, Intro to Drama, Drama II, Tech. Theater, Photojournalism, Broadcast Journalism, Broadcast Productions, Desktop Publishing, Web Page Design, Speech, Novice Debate, Forensics, Experienced Debate, Home and Interior, Creative Sewing I, II or III, Woodworking I or II, Intro to Engineering Design, Engineering Design, Architectural Design, Pre-Vocational Welding, Building Trades I, Machine Technology I, or Welding Technology I.

Advanced Placement (AP) Courses

The College Board's Advanced Placement Program (AP classes) enables students to pursue college-level studies while still in high school. Based on their performance on rigorous AP examinations, students can earn college credit, advanced placement in college courses, or both. Depending on the score received on the AP exam given at the end of the course, students can receive three to six hours of college credits. Nearly all colleges accept some type of AP credit, but the required test scores and number of credits granted vary from college to college. Students are advised to contact potential colleges about their AP policies. Students are responsible for the cost of taking the AP exam (currently \$86), but this is substantially less than the cost of college credit. Fee reductions are available to those who qualify. AP allows high school students to take courses that are challenging, rigorous, and in-depth—preparing students for the kinds of courses they will face once in college. As such, these courses require a substantial commitment of time and energy on the part of students. Students are advised to take no more than three AP courses during one school year. Newton High School offers AP English IV, AP US History, AP Calculus (AB), AP Calculus (BC) and AP Biology.

College Enrollment

It is possible, in some instances, for high school students to enroll in college classes, either for college credit only or for dual college/high school credit. Interested students should consult with their counselor about this possibility. The student must pay college course tuition. A three hour college class counts as .5 high school credit.

Drop/Add Policy

There should be VERY FEW requests to make a schedule change after the pre-enrollment process is completed. During pre-enrollment, students and parents are requested to give careful consideration to course offerings. Counselors work closely with students to give them the best possible advice and answer any questions. Parents must sign the pre-enrollment form. The administration will be very reluctant to make any schedule changes after the first week of any semester. Requests for schedule changes will follow strict guidelines. Legitimate reasons for requesting schedule changes include: conflict with the Master Schedule (a selection was not offered, or several selections are offered at the same time); failure to meet the course recommendation; or an obvious misplacement of the student within the appropriate course of study.

Early Graduation

A student may graduate at the end of first semester of their senior year. Formal application must be made with the principal prior to May 1 of their junior year. The counselor has the application form. Approval must be obtained from parents, counselor and principal. All normal requirements for graduation must be met including the Senior Exit Portfolio. A conference with all persons concerned is required.

TECH PREP

Tech Prep is a term used to describe a course of study that prepares students to continue their education in a technical/vocational career path. NHS has agreements with Hutchinson Community College that will allow students to earn college credits for designated courses completed with a grade of B or better. Such courses are noted in this book as having “Tech Prep designation”. At the successful completion of these courses, HCC personnel will notify students of the Tech Prep status, along with the instructions for using the earned credits.

Career Planning

Studies of how young people come to their educational and career decisions underscore the fact that parents are the #1 influence on career planning, and the Kansas Career Pipeline system supports parents in that critical role. When parents log on to the system, they can see:

- Information on assessments, occupations/majors and more
- Explore the 16 Career Clusters
- Access their child’s portfolio
- Find links to informational websites
- Review timeline of important education and career-planning events

Log on at www.kansascareerpipeline.org

(Board of Regents information)

NCAA REQUIREMENTS FOR DIVISION I AND II ATHLETICS

Students who would like to participate in Division I or II athletics as college freshmen should be aware that there are academic standards which they must meet in high school.

STANDARDS:

- Minimum ACT/SAT scores AND GPA in college preparatory CORE courses.
- Certified by the NCAA INITIAL ELIGIBILITY CLEARING HOUSE during their senior year
- Forms are available online.
- Information is available at www.ncaaclearinghouse.org

NCAA Division I Curriculum

16 Core-Course rule

- 4 years of English
- 3 years of mathematics (Algebra I or higher)
- 2 years of natural/physical science (1 year of lab if offered)
- 1 year of additional English, mathematics or natural/physical science
- 2 years of social science
- 4 years of additional courses (from any area above, foreign language or non-doctrinal religion/philosophy)

See www.ncaaclearinghouse.org for additional qualifications.

KANSAS BOARD OF REGENTS

The Kansas Board of Regents governs standards at six universities in Kansas. Boards of Regents schools are: Kansas State University, The University of Kansas, Fort Hays State University, Emporia State University, Wichita State University, and Pittsburg State University. It is highly recommended students take the qualified admissions curriculum for the best preparation for post secondary success. The Kansas Board of Regents approved NHS curriculum may be found online at www.kansasregents.org. If a student elects to take college classes for dual credit, we cannot assure that the class will meet Qualified Admissions Curriculum approval. As a result the student will need to meet regents' admissions requirements based upon an ACT score of 21 or higher, or rank in the top third of their graduating class.

Qualified Admissions Curriculum	Regents Scholarship Program Curriculum
English – 4 units required	English – 4 units required
Social Science – 3 units required	Social Science – 3 units required
Mathematics – 3 units required Alg. I taken in 8 th grade does NOT count, must be 3 credits taken in high school ex: Geometry, Algebra II and FST.	Mathematics – 4 units required Completion of 8 th grade Algebra I DOES count for scholarship NOT Qualified Admissions.
Natural Sciences – 3 units required	Natural Sciences – 3 units required Must include Biology, Chemistry and Physics
Computer Technology – 1 unit required	Computer Technology – 1 unit required
Foreign Language – 0 units required	Foreign Language – 2 units required The two units must be of the same language.

1011	HONORS ENGLISH I	9	1
1012	Prerequisite – Candidates must complete the Honors Recommendation Form; students are recommended to have a score of 14 or better on the reading portion of the Explore Test, a Lexile score of 1050 or better, and an A or B in English.		

Students enrolled in this course are expected to have strong literary skills, as class time will consist of in depth exploration of literature and writing. This course emphasizes composition, vocabulary, grammar, and readings of greater length and complexity than those in General English I. Students should have a basic understanding of grammar, as additional concepts will be introduced. **In addition, students will be expected to complete summer reading prior to the beginning of the school year.**

1041	GENERAL ENGLISH II	10	1
1042	Prerequisite – English I or Honors English I		

This course deepens the student’s understanding of literary types; short stories, novels, poetry, nonfiction and drama are studied through selected reading. In addition to understanding the literature, students will write in response to the literature, demonstrating composition skills. There is an emphasis on grammar and vocabulary.

1051	HONORS ENGLISH II	10	1
1052	Prerequisite – Candidates must complete the Honors Recommendation Form; students are recommended to have a score of 80% or better on the Formative Reading Assessment, a Lexile score of 1250 or better, and an A or B in English.		

Honors English II has a stronger emphasis on and higher expectations for composition than General English II. Also, there will be readings of greater complexity. New grammar concepts are taught, so the student must have a strong understanding of all concepts taught in English I. **In addition, students will be expected to complete summer reading prior to the beginning of the school year.**

1061	GENERAL ENGLISH III	11	1
1062	Prerequisite – English II or Honors English II		

This course emphasizes major themes and literary trends in American literature. Student comprehension of these trends and themes will be measured by a strong emphasis on writing skills such as analysis, expository writing, and a major documented research paper. Writing at this level should reflect a sound knowledge of grammar, spelling, and vocabulary.

1071	HONORS ENGLISH III	11	1
1072	Prerequisite – Candidates must complete the Honors Recommendation Form; students are recommended to have a score of 80% or better on the Formative Reading Assessment, a Lexile score of 1300 or better, and an A or B in English.		

This course is recommended for college-bound students who have been successful in previous Honors English classes. In addition to the course work covered in Honors English II, there is a much stronger emphasis on critical reading, persuasive writing, and literary analysis. Students are expected to have an excellent command of grammar skills and a strong writing ability upon entering the course. Extensive out of class reading is required. **In addition, students will be expected to complete summer reading prior to the beginning of the school year.**

1081	GENERAL ENGLISH IV	12	1
1082	Prerequisite – English III or Honors English III		

General English IV is a survey course designed to prepare students to be successful in whatever they do following high school. Areas of emphasis include the reading of both fiction and nonfiction literature and writing for academic as well as vocational purposes.

1091	HONORS ENGLISH IV	12	1
1092	Prerequisite – Candidates must complete the Honors Recommendation Form; students are recommended to have a score of 80% or better on the Kansas Reading Assessment, a Lexile score of 1300 or better, and an A or B in English.		

This is a course for college-bound seniors who have been successful in previous Advanced English courses. Students will review grammar as needed and will master various composition techniques. A major focus of this course is reading and analyzing British literature. **In addition, students will be expected to complete summer reading prior to the beginning of the school year.**

1101	ADVANCED PLACEMENT ENGLISH IV	12	1
1102	Recommendation – Honors English III; Grade of A or B in previous English classes, and teacher recommendation.		

This course offers capable students the academic challenge of a college level English course. While penetrating deeper into the analysis of literature, the course will focus on British authors, but will also include world and American authors. Written analysis is emphasized in frequent papers, and significant out-of-class reading is required. Students are expected to have a strong mastery of grammar skills upon entering the course. Students will prepare for the Advanced Placement exam to be given in the spring. **In addition, students will be expected to complete summer reading prior to the beginning of the school year.**

1541	FRENCH V				12	1
1542	Prerequisite – French IV					

This course builds upon previous French studies, focusing on advanced grammar skills and the Literature of Francophone countries. It will be taught in combination with French IV.

1601	GERMAN I		9	10	11	12	1
1602	Prerequisite – None						

This course provides a good foundation for further study in the language by providing a broad basic vocabulary through comprehensible input. Besides listening, conversational, reading and writing skills, the student is exposed to the geography, music, customs, history and art of the culture.

1611	GERMAN II		9	10	11	12	1
1612	Prerequisite German I						

This course builds on vocabulary and structures learned in beginning German with emphasis on expanding vocabulary and increasing listening, conversational, reading and writing skills. Geography of Germany and Europe are also stressed together with additional music, customs, and history.

1621	GERMAN III			10	11	12	1
1622	Prerequisite - German II						

The student continues to develop abilities in reading, speaking and writing exploring further the areas of German culture, including history, literature, music and art. An emphasis is placed on exploration of German literature and the structure of the language.

1631	GERMAN IV				11	12	1
1632	Prerequisite – German III						

The student builds upon what was learned in previous years, exploring advanced grammar structures and further German literature as well as current events. Usually meets at the same time as German III.

1641	GERMAN V					12	1
1642	Prerequisite – German IV						

This course is individualized toward the student's need in advanced language study. The student sets goals of language improvement and work is primarily self-directed. Focus areas will be grammar, literature, and topics of interest to the student. Will meet at the same time as German IV.

1701	SPANISH I	9	10	11	12	1
1702	Prerequisite – None					

The student will acquire basic Spanish grammar, sounds, pronunciation, vocabulary and culture of the language. Besides learning basic conversational skills, the student is exposed to the geography, music, customs, history and art of Spanish speaking countries.

1711	SPANISH II	9	10	11	12	1
1712	Prerequisite – Spanish I					

This course maintains the development of oral competence and grammar with more emphasis on reading and writing. Using their reading ability, students become more aware of the characteristics and attitudes of Hispanic cultures.

1721	SPANISH III	10	11	12		1
1722	Prerequisite – Spanish II					

This course continues to increase the student's ability to converse. The student does a thorough grammar review. In addition to language skills, the student is made aware of the cultural characteristics of Spanish speaking countries. Reading and writing skills will also be emphasized. Mexican Art and literature and Argentine culture will be a focus.

1731	SPANISH IV		11	12		1
1732	Prerequisite – Spanish III					

Students in this course demonstrate increasing proficiency in language skills. Speaking skills begin to reflect increasing accuracy with respect to grammar and pronunciation and are augmented and sustained by the development of reading and writing skills. Exposure to a variety of genres of Spanish literature is a goal. Spanish art and culture will be a focus.

1735	SPANISH V			12		1
1736	Prerequisite – Spanish IV					

This course will stress the application of language skills acquired during the four previous years. Emphasis will be on: reading, literature, and writing. Class will be independent study and meet during Spanish IV.

1741	SPANISH FOR NATIVE SPEAKERS (Level I/II)	9	10	11	12	1
1742	Required – Native Speaker					

This course is designed for students who speak Spanish in the home. The class is conducted in Spanish. It covers Spanish spelling, language use, writing organization and is designed to increase student's knowledge of Latin American literature and culture. Students may take this class twice, completing Levels I and II.

2081	ADVANCED PLACEMENT UNITED STATES HIST/AM.GOV Recommendation – 3.5 GPA in Honors Courses	11 12	1
2072			
2073	Juniors enroll in 2081 and 2072		
2074	Seniors enroll in 2073 and 2074		

This course is designed for students who want the academic challenge of an integrated college level US History/Government course. Students are introduced to the development of governmental institutions, historiography, authors and methods. Extensive use is made of both primary and secondary source materials with an objective of developing each student's interpretive and analytical skills. An extensive amount of outside reading and writing is required. Students may elect to take a College Board-A.P. US History exam at the conclusion of their senior year. Please note this is a two-year block with the first semester focusing primarily on government and three semesters devoted to an in-depth survey of US History.

2080	AMERICAN GOVERNMENT Required for 12 th Grade	12	.5
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This course is required for graduation. It covers the development of government from the Pre-Greek period to modern governments. The major emphasis is on the American governmental system. Students have the opportunity to do individual projects, class field trips and examinations. Exams are both objective and subjective.

STUDENTS MAY CHOOSE FROM COURSES 2100, 2110, AND 2120 TO SATISFY THE SENIOR ELECTIVE SOCIAL SCIENCE REQUIREMENT.

2100	PSYCHOLOGY	12	.5
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This course will survey the scientific principles of mental process and human behavior. Areas covered will include neuroscience, human development, sensation, perception, learning, memory, thinking, intelligence, emotions, stress, personality and psychological disorders. In addition, the student will review the historical development of psychology and the fundamentals of research.

2110	SOCIOLOGY	11 12	.5
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In this course, students will study the concepts of socialization, social interaction, social organization, cultural and social change, social institutions and social problems. Evaluation consists of objective and/or subjective exams and the writing of book reviews.

2120	ECONOMICS	12	.5
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Economics is a social science concerned with the problems of using and administering scarce resources, in order to attain the greatest or maximum fulfillment of society's unlimited wants. Economics is concerned with "doing the best with what we have." Students will investigate: a) economics history and background; b) economic science; c) the study of the macro system of economic growth; d) the market mechanism, or microeconomics; e) international economics.

This course will require students to examine noteworthy political, social and economic topics of current interest. The political and historical backgrounds of many of the issues will be researched and analyzed in more detail. There will be no textbook but course material will be drawn from newspapers, news magazines, the electronic media, scholarly publications and the Internet. Course work will entail an additional amount of reading and writing. **This course will not fulfill the 12th grade social studies requirement.**

MATHEMATICS

<u>COURSE</u>		<u>PREREQUISITE</u>	<u>GRADE LEVEL</u>	<u>CREDIT</u>
3021-3022	Applied Math I	3041 and 3042	10 11 12	1
3035-3036	Basic Algebra	placement only	9	1
3041-3042	Algebra I		9 10 11 12	1
3055-3056	Standards Based Math	3041 and 3042	10 11	1
3061-3062	Geometry	3041 and 3042	9 10 11 12	1
3091-3092	Honors Geometry	3041 and 3042	9 10 11 12	1
3071-3072	Algebra II	3061 and 3062	10 11 12	1
3101-3102	Honors Algebra II	3061 and 3062	10 11 12	1
3201-3202	FST (Function, Statistics Trigonometry)	3071 and 3072 or 3101 and 3102	11 12	1
3135-3136	PreCalculus/Trigonometry	3101 and 3102	10 11 12	1
3131-3132	A.P. Calculus I	3201 and 3202 or 3135 and 3136	12	1
3133-3134	A.P. Calculus II	3131 and 3132	12	1
3051-3052	Math Lab		9	.5
2319	Math Tutor		11 12	1

3021	APPLIED MATH I	10 11 12	1
3022	Prerequisite – Algebra I		

Applied Mathematics uses a set of modular learning materials designed to prepare students in developing job-related mathematics skills. A Scientific calculator is required.

3035	BASIC ALGEBRA	9	1
3036	by teacher placement only		

A teacher places a student in Basic Algebra class if he/she has difficulty in math and/or has received an “academic warning” on the Kansas Math Assessment.

3041	ALGEBRA I	9 10 11 12	1
3042	Recommendation – None		

Algebra I uses multiple representations (graphical, numerical, and analytical) as settings for work with linear expressions, linear equations, exponents, polynomials, functions, and statistics with applications. (Scientific calculator is required.)

3055	STANDARDS BASED MATH	10 11	1
3056	Recommendation – Algebra I (C- or lower) Enrollment is based on teacher recommendation only.		

Standards based math will address the Kansas Math Standards as presented on the Kansas Math Assessment and right triangle trigonometry. This course is designed for the student needing reinforcement of data, number and computation, algebra, and geometry standards. All students enrolled in this course will take the Kansas Math Assessment.

3061	GEOMETRY	9 10 11 12	1
3062	Prerequisite – Algebra I		

Geometry is the study of visual patterns and geometric properties, transformations, proof, and right triangle trigonometry. The content uses multiple representations integrated with algebraic concepts. A scientific calculator is required. A graphics calculator is optional: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition).

3091	HONORS GEOMETRY	9 10	1
3092	Prerequisite – Algebra I		

This course is similar in scope to Geometry. Content will be greater in depth and rigor. Multiple representations integrated with algebraic concepts will be used. Greater emphasis will be placed on applications, multiple step problems, and proofs. Students enrolled in this course should have above average mathematical problem--solving skills. A scientific calculator is required. A graphics calculator is optional: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition).

3071	ALGEBRA II	10 11 12	1
3072	Prerequisite – Geometry		

Algebra II is a course recommended for college bound students. Multiple representations are used as settings for work with number properties, graphs, expressions, equations, inequalities, algebraic fractions, functions, and trigonometry. A scientific calculator is required. A graphics calculator is optional: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition).

3101	HONORS ALGEBRA II	9 10 11 12	1
3102	Prerequisite – Geometry or Honors (Advanced) Geometry		

This course is similar in scope to Algebra II. content and will be greater in depth. Multiple representations integrated with geometric concepts, statistical applications will be used. Greater emphasis will be placed on applications and multiple step problems. Students enrolled in this course should have strong mathematical and problem-solving skills. A graphics calculator is required for this course (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition).

3201	FST (Functions, Statistics, Trigonometry)	10 11 12	1
3202	Prerequisite – Algebra II or Honors (Advanced) Algebra II		

Function, Statistics and Trigonometry integrates statistical and algebraic concepts. Multiple representations are used as settings for work with number properties, graphs, equations, sequence, series, trigonometry, and functions. A graphics calculator is required: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition).

3135	PRECALCULUS WITH TRIGONOMETRY	10 11 12	1
3136	Recommendation – Honors Algebra II		

PreCalculus with Trigonometry will cover the topics of FST in greater depth and at a faster pace. Additional topics to be studied include trig identities, a more in depth study of polynomial functions, solving rational inequalities, absolute value inequalities, and an introduction to limits of functions. A graphics calculator is required: (TI-83 or TI-84).

3131	ADVANCED PLACEMENT CALCULUS (AB)	11 12	1
3132	Recommendation – FST or PreCalculus with Trigonometry		

Topics to be studied include elementary functions, limits, differential calculus and integral calculus. Students will be eligible to take the Advanced Placement AB Calculus Exam for possible college credit. This full year course will approximate the first semester calculus course at the college level. A graphics calculator is required: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition, TI-89).

3133	ADVANCED PLACEMENT CALCULUS II (BC)	11 12	1
3134	Prerequisite: Advanced Placement Calculus (AB)		

A.P. Calculus II (BC) is an extension of the Advanced Placement Calculus (AB) course. Topics covered include all Calculus AB topics. Additional topics to be studied include parametric, polar, and vector functions, analysis of planar curves, differential equations using Euler’s method, applications of integrals, integration by parts and simple partial fractions, improper integrals, logistic differential equations, and polynomial approximations and series. Students will be eligible to take the Advanced Placement Calculus BC exam for possible college credit. This full year course will approximate the Calculus II course at the college level. A graphics calculator is required: (TI-83, TI-83 Plus, TI-83 Silver Edition, TI-84 Plus, TI-84 Silver Edition, TI-89).

3051	MATH LAB	9	.5
3052	By Application Only – Available from Counselors or Instructor		

This course is designed for students scoring “academic warning” on the Kansas Math Assessment or whose math skills indicate they may have trouble meeting those standards. The school counselor will place students who qualify for this course. Students in this class are also enrolled in Algebra I. **This course is offered as an elective credit, not a math credit.** Students will need to complete 2 or 3 other math courses to meet the graduation requirements.

2319	MATH TUTOR	11 12	1
	By Application Only – available from Counselors or Instructor		

Students will provide peer tutoring for Algebra I students on homework, skills review, and computer units. The Math Department will notify those students selected for the program. **This class will be taken on a Pass/Fail basis.**

SCIENCE

<u>COURSE</u>		<u>PREREQUISITE</u>	<u>GRADE LEVEL</u>	<u>CREDIT</u>
3711-3712	Earth Science		9	1
3511-3512	General Science	3523 and 3524	11 12	1
3523-5324	Life Science	3711 and 3712	10 11 12	1
3531-3532	Biology	3711 and 3712	10 11 12	1
3535-3536	Honors Biology		9 10 11 12	1
3541-3542	Chemistry I	3041 and 3042	10 11 12	1
3551-3552	Honors Chemistry I	3041 and 3042	10 11 12	1
3561-3562	Honors Chemistry II	3541 and 3542 or 3551 and 3552	11 12	1
3571-3572	Physics	3041 and 3042	10 11 12	1
3741-3742	Human Biology		10 11 12	1
3601-3602	Anatomy and Physiology	See Description	11 12	1
3611-3612	AP Biology	3551 and 3552	10 11 12	1
8081-8082	Health Careers Exploration		11 12	1

3711	EARTH SCIENCE	9	1
3712	Recommended for ALL Freshmen		

Earth Science is the study of the planet Earth and its place in space. Earth Science includes topics in geology, astronomy, meteorology, and environmental science. These areas of study are supported by topics in chemistry and physics. Emphasis is placed on skills and knowledge that provide a good foundation for understanding our natural world and a good foundation for success in further science course work.

3511	GENERAL SCIENCE	11 12	1
3512	Prerequisite – Passing grade in Life Science <u>and</u> by Science Teacher		

General Science is a year-long course that provides a third science credit to students who have successfully completed Life Science. This is an essential skills course that focuses on the Kansas State Science Assessment standards in chemistry and physics, as well as topics relating to earth and space science. This course will not meet Board of Regents Qualified Admissions Curriculum.

3523	LIFE SCIENCE	10 11 12	1
3524	Prerequisite – Passed Earth Science <u>and</u> Science Teacher or Counselor Recommendation		

This is an essential skills course that focuses on the Kansas State Science Assessment standards in life science. Field biology is a significant component and is taught both in the classroom and in the Newton High School OWLS (Outdoor Wildlife Learning Site).

3531	BIOLOGY	10 11 12	1
3532	Prerequisite – Earth Science (Grade of C or better recommended)		

Biology is the study of living organisms. Topics covered in the class include biochemistry, cell biology, genetics, population genetics/evolution, classification and ecology. Laboratory experiments and various types of activities are used to cover these topics.

3535	HONORS BIOLOGY	9 10 11 12	1
3536	Prerequisite – Grade of A in Earth Science – Freshmen enrolling in Honors Biology have earned an A in both semesters of 8 th grade Accelerated Science and an A in both semesters of 8 th grade Algebra. This course is not recommended for 9 th graders who have not yet completed Algebra.		

The Honors Biology course takes a more in-depth look at the same topics covered in Biology (3531-3532). This course is designed for students who have a strong interest in studying life science content in a more challenging format. Conceptual development of key biological ideas and processes, as well as the development of laboratory investigative skills, are major components of this class. This course also prepares students for enrollment in AP Biology.

3541	CHEMISTRY I	10 11 12	1
3542	Recommendation – Algebra I (Grade C or better recommended)		

This course will emphasize building the student's understanding of the fundamental structures and properties of matter. Students will develop core concept of chemistry based on the periodic table, bonding, kinetic theory, and the nature of matter in solutions. Chemistry I connects basic chemistry to the specialty areas of biochemistry, nuclear chemistry, and electrochemistry.

3551	HONORS CHEMISTRY I	10 11 12	1
3552	Recommendation – Algebra I (Grade B or better recommended)		

This laboratory science course deals with the structure and composition of materials and the changes they undergo. The course is designed to give an understanding of the properties and conditions that are involved in reactions. The experimental nature and foundation of chemistry is reinforced by use of numerous laboratory experiments. A large emphasis is made on a student's effort and test scores, for a student's grade. Students enrolled in this program may be eligible for advanced standing with Hutchinson Community College.

3561	HONORS CHEMISTRY II	11 12	1
3562	Prerequisite – Chemistry I or Honors Chemistry I (Grade B or better recommended)		

This is an advanced course for students who have interest in further study of chemistry. Some topics from Honors Chemistry I will be reviewed and other topics will be introduced. There are several field trips taken to help illustrate applications of science. Students will also give several presentations to the class. Students enrolled in this program may be eligible for advanced standing with Hutchinson Community College. This course is designed for students coming out of Honors Chemistry I. Students from Chemistry I need instructor approval.

3571	PHYSICS	10	11	12	1
3572	Recommendation – Algebra I (Grade B or better recommended)				

Physics is a laboratory science that first reviews math, metrics, and significant digits. Mechanics topics are covered in the first semester. A sample would include speed, velocity, acceleration, momentum, vectors, and Newton’s Laws. Heat energy is also a first semester topic, if time allows. Second semester covers waves (both sound and light), electricity, magnetism, and electronics. Students of physics must have completed Algebra I. A further math background is recommended.

3741	HUMAN BIOLOGY	10	11	12	1
3742	Prerequisites – Biology and Chemistry (concurrent enrollment in Chemistry allowed)				

Students in this course study the technical names for many body structures and how the various systems in their body function. Homework is minimal. Lab activities including working with models and specimens take up the majority of the class time. This course, which is open to anyone who wants to know more about the human body, provides a good foundation for students interested in pursuing careers in the various medical technologies or non-technical nursing fields.

3601	ANATOMY AND PHYSIOLOGY	11	12	1
3602	Recommendation – A or B in both semesters of Biology and A or B in Honors Chemistry I or concurrent enrollment			

Anatomy and Physiology is a challenging course designed for students thinking about majoring in the more rigorous medical-related fields such as pre-Vet, pre-Med, Masters or BSN in nursing and Physicians Assistant. Human structures and the function of those structures from the chemical to organism level will be emphasized. To do well, students must be able to commit a minimum of a half hour per day on their own time for homework and studying. Coming in occasionally during seminar to work with models, is highly recommended.

3611	AP BIOLOGY	10	11	12	1
3612	Recommendation – Biology and Honors Chemistry I (or concurrent enrollment) Anatomy and Physiology is suggested – see below.				

AP Biology is designed to be the equivalent of an introductory biology course taken during the first year of college. Topics include biochemistry, cells, heredity, evolution, organisms, and population ecology. Two main goals of this class are to develop a conceptual framework for biology and to gain knowledge of science as an investigative process. Movement through coursework is rapid. Students should expect extensive daily preparation and possibly time spent in class before school or after school. Also, due to the extensive amount of material in the AP Biology curriculum, students who are planning to take the College Board AP Biology examination are encouraged to enroll in, or have taken, Anatomy and Physiology (3601-3602). Though not required, students who successfully complete AP Biology are eligible to take the AP Biology exam.

8081
8082

HEALTH CAREERS EXPLORATION

11 12

1

Recommendation – By application only, computer skills recommended

Juniors and seniors are eligible with seniors given priority for this course consisting of in-depth exploration of various health care professions. Students will examine the health care industry by researching, discussing, observing, and investigating the education, skills and interests required of various health care professions. This is a two semester course and during the spring semester students job shadow at various health care facilities in Newton. While shadowing, students will be leaving the high school during one period of the school day to observe and work with a health care professional. Prior to shadowing, students will need to receive a TB skin test at a cost of \$17.00. This test will be given during class and will be administered by nurses from the Harvey County Health Department. Membership in the Health Occupations Students of America (HOSA) Club is required. The club meets mainly during class but may also meet outside of class for various activities. State and National dues for HOSA are approximately \$17.00.

4151	DESIGN II	11 12	1
4152	Prerequisite – Design I		

A class for the advanced graphics design student. There will be further exploration in typography and graphic design. The graphic artist on computer will cover fashion design, video, design layout, printing, topography and design. Students will purchase an art packet. **Focus will be towards a career as a graphics designer.** This is a designated Tech Prep course. Completion of Design I and II with a “B or better” means that you could earn college credit to be applied toward an Associate of Applied Science degree at Hutchinson Community College. **Additional cost will incur as needed.**

4171	CERAMICS I	10 11 12	.5-1
4172	Prerequisite – Art Basics. No recommendation for a Senior		

This class will be an introduction to the hand-building techniques and wheel form. The course involves glazing, clay mixing, kiln firing and use of different clays.

4181	CERAMICS II	11 12	.5-1
4182	Prerequisite – Ceramics I		

This course is for students who want to continue to develop strengths and improve weaknesses in ceramic work. The class involves working on advanced projects in hand-building and wheel works. This class will have a major role in loading the kilns and glaze formulation. This course will focus on dinner sets. Sketchbook is required.

4183	CERAMICS III	12	.5-1
4184	Prerequisite – Ceramics II		

This course is for students who want to continue to develop strengths and weaknesses in ceramic work. This class involves working on advanced individual projects on the wheel and hand building.

4195	ADVANCED ART	11 12	1
4196	Prerequisite – Art Basics & teacher recommendation		

Students will explore sculpture, painting, mural painting, design and community artwork on an advanced level. They will have the opportunity to create an art portfolio in their area of concentration for their future art career. Art packet required.

4205	TECHNICAL THEATER	10 11 12	1
4206	By Application Only		

This course is for students to learn the basics of backstage work in theater. They will study set design and construction, theory and usage of lighting and sound, costume design and prop making. Students will be included in all traditional aspects of the fall and spring shows, including setup and running. Tech work outside of class is required as well as attendance at all tech and dress rehearsals and performances. May be repeated for credit.

4401	FRESHMEN CHOIR	9	1
4402			

This course is open to all freshmen. The group rehearses and performs music from the standard mixed chorus repertoire. General music and choral techniques are studied to prepare members for participation in the more advanced choral groups. The choir performs several times during the year, but the course emphasis is more on training rather than performance. Music theory, ensemble literature and solo literature are also studied.

4411	CHAMBER CHOIR	10 11 12	1
4412			

This is a mixed chorus of sophomore, junior and senior voices. Singers not selected for Choraleers or Les Chantes may select Chamber Choir. This choir performs several times during the year. Emphasis is placed on voice production and choral technique to prepare members for participation in the more advanced choral groups. Music theory, ensemble literature, solo literature and piano keyboard skills are also studied.

4421	LES CHANTES	10 11 12	1
4422	By Audition Only		

This is a select group of female voices chosen by audition. The group studies and performs the more advanced selections from the repertoire for women's voices. Les Chantes performs at concerts, programs, churches and music festivals. Each student purchases performance outfits.

4431	CHORALEERS	11 12	1
4432	By Audition Only		

This is a mixed chorus chosen by audition. The Choraleers prepare and perform selections from the standard mixed chorus repertoire. In addition to the regular series of performances in the school, the Choraleers make appearances at special holiday services, music festivals and conventions, both in and outside of the Newton area.

4441	RAILAIRES	11 12	1
4442	Requirement – Must be a member of Choraleers and By Audition		

This is a select mixed ensemble chosen from the membership of Choraleers. The group studies and performs the more advanced selections from the madrigal and chamber choir repertoire, in addition to jazz, pop and show choir material. The Railaires perform each year at concerts, club programs, churches, clinics and festivals. Performance outfits are to be purchased by each student.

4501	BAND	9	10	11	12	1
4502	Recommendation – Permission of Instructor					

This class functions as a marching unit in the fall of the year, performing at football games and select festivals. Following football season, the band divides into a symphonic concert band and a symphonic wind ensemble. These groups prepare and perform selections from the concert band repertoire. In addition to several home concerts, these bands participate in clinics and festivals outside the Newton community. Various groups, including ensembles, pep band and orchestra winds, are selected from the band enrollment. All wind and percussion players electing instrumental music must enroll in band. The band and orchestra rehearse the same hour.

4511	ORCHESTRA	10	11	12	1
4512	Recommendation – Permission from instructor or audition				

This course is a grouping of all string players. Wind and percussion players are chosen from the wind ensemble to perform with the string players, making a full orchestra. String orchestra and full orchestra prepare and perform works from the traditional orchestra repertoire. The orchestra performs 6 to 8 concerts per year and participates in clinics and festivals outside the Newton area.

4513	9TH ORCHESTRA	9				1
4514						

This course is a grouping of all the 9th grade string players. Wind and percussion players are chosen from the wind ensemble to perform with the string players, making a full orchestra. String orchestra and full orchestra prepare and perform works from the traditional orchestra repertoire. The orchestra performs 4 to 6 concerts per year and participates in clinics and festivals outside the Newton area.

4521	JAZZ ENSEMBLE I	9	10	11	12	1
4522	Requirement – Must be a member of Band or Orchestra and by audition					

Students in the course prepare and perform music from the jazz and big band repertoire. In addition to appearances at home in concerts and assemblies, the jazz ensemble participates in clinics and festivals outside the Newton community.

4531	JAZZ ENSEMBLE II	9	10	11	12	1
4532	Requirement – Must be a member of Band or Orchestra Recommendation – Permission of Instructor					

This is the same as Jazz I Ensemble, except no audition is required.

5051	COMPUTER TECHNOLOGY	9	10	11	12	1
5052	Prerequisite – Intro to Computers					

This full year class will consist of computer concepts, word processing, spreadsheet, database and presentation skills. Units are also included in E-mail, Internet and social/ethical issues in computing. This is a required course for graduation and is a prerequisite to all other computer classes. Computer Technology will full the Computer Technology Proficiencies requirement to be admitted to any Kansas Regents University. This course is a designated Tech Prep course through Hutchinson Community College.

5055	COMPUTER TECHNOLOGY	9	10	11	12	1
5056	Prerequisite – Intro to Computers					

Same as 5051 and 5052 except this course is offered “zero” hour, meeting every day 7:00 a.m. to 7:50 a.m. This course would be taken in addition to a regular 8-hour schedule. Zero hour classes have the same attendance requirements as do all other classes.

5060	DESKTOP PUBLISHING	10	11	12		.5
	Prerequisite – Computer Technology					
	Recommendation – Grade of C or better in Computer Technology					

This semester class is designed for the student who wants to learn how to create newsletters, brochures, advertisements, flyers, various business forms and mailing forms. This is a designated Tech Prep course through Hutchinson Community College.

5070	WEB PAGE DESIGN	10	11	12		.5
	Prerequisite – Computer Technology					
	Recommendation – Grade of C or better in Computer Technology					

This semester class is designed for students who want to learn how to design and create a web page through the use of FrontPage 2002 and HTML.

5131	JR. TECH SUPPORT	11	12			1
5132	Prerequisite – Computer Technology (5051 and 5052) & Concurrent enrollment in Jr. (IHT) Tech Support (5133 and 5134) <u>By Application Only – available from Counselors or Instructor</u>					

This course is for students in their first year of training in computer technical support. Students will be under the guidance of USD #373’s technicians and a classroom teacher, assisting them with a variety of computer/technology related tasks. Students will be problem solvers and will travel to selected schools throughout the district. Students will maintain a notebook documenting their computer tasks. These tasks will include both software and hardware problems.

5133	JR. (IHT) TECH SUPPORT	11	12			1
5134	Required: Concurrent enrollment in Jr. Tech Support (5131 and 5132)					

This course is taken in conjunction with the Jr. Tech Support course listed above. This year long course is a continuation of technical support services offered to USD #373 during the school day.

5135	SR. TECH SUPPORT	12	1
5136	Prerequisite – Jr. Tech Support (5131 through 5134) & Concurrent enrollment in Sr. (IHT) Tech Support (5137 and 5138)		

This course is for advanced students who have completed the Jr. Tech Support program. Students will serve as mentors to students in the Jr. Tech Support class. They will continue to be problem solvers, travel to schools throughout the district and maintain documentation and records of technological equipment and repairs.

5137	SR. (IHT) TECH SUPPORT	12	1
5138	Required: Concurrent enrollment in Sr. Tech Support (5135 and 5136)		

This course is taken in conjunction with the Sr. Tech Support course listed above. This year long course is a continuation of technical support services offered to USD #373 during the school day.

5150	INTRODUCTION TO COMPUTER PROGRAMMING	10 11 12	.5
	Prerequisite – Computer Technology Recommendation – Grade of C or better in Geometry and Computer Technology		

This semester course is designed for the student who wants to learn how to create basic windows programs using Visual Basic software.

5160	COMPUTER PROGRAMMING	10 11 12	.5
	Prerequisite – Introduction to Computer Programming		

Students will study computer systems, top down programming, data types and structure. The programming language used will be VisualBasic.net. Computer animation will be introduced in this class using Flash.

5061	COMPUTER APPLICATIONS IN BUSINESS	11 12	.5
	Prerequisite – Computer Technology		

This semester course is designed to introduce students to the many uses of computers and allow students to explore new technologies. Areas of exploration will be video technology, graphics, animation technology, and electronic presentations. After sufficient introduction to these new technologies, students will be given opportunities to prepare computer-aided presentations utilizing these varied technologies. Students will construct a multimedia portfolio in a format suitable for either web distribution or copied to a CD-ROM.

8041	MARKETING II	11 12	1
8042	Prerequisite – Marketing I (8037 and 8038)		
	<u>By Application only – available from Counselor or Instructor</u>		

This course is an advanced study of marketing and business management. Course work includes sales, advertising, market research, human relations, leadership skills, E-Commerce, and sport marketing. Students have the opportunity to work in a marketing-related job and participate in DECA Club activities. **DECA membership required.** This is a designated Tech Prep course. Completion of Marketing I and II means you have earned college credit to be applied toward an Associate of Applied Science degree at Hutchinson Community College.

8043	MARKETING (OJT)	12	2
8044			

8047 In Marketing On-The-Job Training, students are released from school in the afternoon to work in
8048 local businesses where they have the opportunity to apply classroom learning to their jobs, and gain valuable work experience. The program coordinator and employers work together to assist students in developing positive work skills, ethics, and attitudes. A long-term job reference is also a main course goal.

8051	BUSINESS & COMPUTER TECHNOLOGY	12	1
8052	Prerequisite – Computer Technology (5051 and 5052)		
	<u>By Application only – available from Counselor or Instructor</u>		

This course is designed for students interested in business office jobs. Students work in a business-related job and participate in BPA club activities. Students learn records management, business communications, business mathematics, calendaring, document production, human relations skills, career development skills, leadership skills, and financial functions. Jr. Business Technology and Accounting are highly recommended. **Students must also enroll in Business & Computer Technology (OJT). BPA membership is required.**

8053	BUSINESS & COMPUTER TECHNOLOGY (OJT)	12	2
8054	Required – Concurrent enrollment in Business & Computer Technology		
8056			

8057 Taken in conjunction with Business & Computer Technology, this course is designed to give students the opportunity to learn by practical experience through employment. Students may be released from school in the afternoon to work in local businesses, applying what they have learned and acquiring knowledge in a real work setting. Employers, students, and the program coordinator work as a team to maximize students' opportunities to develop lifelong skills, work ethic, and attitudes.

8061	ENTREPRENEURSHIP/YEK	10 11 12	1
8062	<u>By Application only – available from Counselor or Instructor</u>		

This course is designed to develop creativity, business skills, leadership qualities and other skills needed for students desiring to start their own business. Students will develop these skills through a hands-on classroom experience and contact with actual business owners. Students will write a competitive workable business plan.

Students will participate in interactive instruction and will develop communication, research and problem solving skills as they relate to business. Learning is focused on applied entrepreneurial opportunities and careers as well as all aspects of the operation/management of small businesses. The format of this class promotes a strong community link, and students will spend time working directly with community mentors. Additionally, students will actively participate in the operation of all in-school business. They will also research, develop, write and present a workable business plan. **DECA membership is required.** Students may enroll concurrently as a Hutchinson Community College student. If students choose this option, tuition will be charged. If taken as a high school course ONLY, this is a designated Tech Prep course through Hutchinson Community College.

6035	PHYSICAL EDUCATION II/WEIGHTS Prerequisite – Physical Education I Recommended for Girl’s only	10 11	.5
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This class will include Red Cross CPR and standard first aid certification and weight training. This course is for the student wanting to earn .5 credit in P. E. while developing muscular strength, muscular flexibility, and muscular endurance. Cardiovascular fitness will also be improved with emphasis on agility, speed, and quickness.

6051 6052	WEIGHT TRAINING	9 10 11 12	1
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Same as course 6055-6056 except this course is for “zero” hour, meeting every day, 7:00 a.m. to 7:45 a.m. This course would be taken in addition to a regular 8-hour schedule. Zero hour classes have the same attendance requirements as do all other classes.

6055 6056	WEIGHT TRAINING Recommendation – Physical Education I	9 10 11 12	1
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This course is for the student interested in developing a fitness program, which includes muscular flexibility, muscular strength, and muscular endurance. This will include using weight equipment with lifts for both upper and lower body. This course will meet during either 1st or 2nd hour split block.

6060	PHYSICAL EDUCATION III Prerequisite – Physical Education II	11 12	.5
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This course is for the student who wants to gain knowledge and skill in bowling, archery, pickle ball, swimming, discs, and various fitness activities.

6070	PHYSICAL EDUCATION IV Prerequisite-Physical Education II	11 12	.5
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This course is for the student interested in lacrosse, ping pong, golf, swimming, team handball, ultimate frisbee, ultimate football, and various other fitness activities.

JOURNALISM

<u>COURSE</u>	<u>PREREQUISITE</u>	<u>GRADE LEVEL</u>	<u>CREDIT</u>
1201-1202	Introduction to Journalism	9 10 11 12	1
1211-1212	Newspaper Production	1201-1202 or 1241-1242 and approval	10 11 12 1
1221-1222	Yearbook Production	1201-1202 or 1241-1242 and approval	10 11 12 1
1241-1242	Photojournalism	9 10 11 12	1
1270	Broadcast Journalism	1201-1202 or 1241-1242	10 11 12 .5
1271-1272	Broadcast Production	1201-1202 and 1270 and approval	10 11 12 1

NOTE: THE FOLLOWING COURSES DO NOT MEET THE ENGLISH LANGUAGE ARTS REQUIREMENT FOR GRADUATION. THEY COUNT AS ELECTIVE CREDIT.

1201 INTRODUCTION TO JOURNALISM 9 10 11 12 1
1202

This course presents an overview of the field of journalism and mass communication. Students learn to be consumers of media and to understand news gathering and production. This course includes instruction in basic news writing, reporting, editing and discussion of legal and ethical issues. This class is the prerequisite for Newspaper Production, Yearbook Production and Broadcast Journalism.

1211 NEWSPAPER PRODUCTION 10 11 12 1
1212 Prerequisite – Introduction to Journalism or Photojournalism and Teacher Approval.

This is a laboratory course in which students will write, edit, design, and layout the school newspaper, **The Newtonian**. Students taking this course must be self-directed, with the ability to work with others. Leadership, cooperation and high standards of achievement are essential in all staff members. This course may be repeated for credit.

1221 YEARBOOK PRODUCTION 10 11 12 1
1222 Prerequisite – Introduction to Journalism or Photojournalism and Teacher Approval.

This is a laboratory course in which students will create the school yearbook, **The Railroader**. Students taking this course must be self-directed, with the ability to work with others. Leadership, cooperation and high standards of achievement are essential in all staff members. This course may be repeated for credit.

1241 PHOTOJOURNALISM 9 10 11 12 1
1242

The class presents an overview of the field of photojournalism and covers basic camera handling and exposure, digital imaging and principles of photojournalism. Students develop skills in editing and shooting photos and produce photos for the high school's yearbook and newspaper. Students taking this class must be self-motivated and responsible and have a high level of interest and strong organizational skills. This class is the prerequisite for Newspaper Production, Yearbook Production and Broadcast Journalism.

1270	BROADCAST JOURNALISM	10 11 12 .5
	Prerequisite – Introduction to Journalism or Photojournalism	

Students enrolled in Broadcast Journalism will explore basic elements of television broadcasting. Students will learn about the role of broadcast media in today’s society. Students will gain knowledge in audio and video recording techniques. Students will apply elements of video editing using digital video editing equipment. Students will apply the knowledge they gain in video composition, video continuity, audio quality, story contents and interviewing to complete editing projects.

1271	BROADCAST PRODUCTIONS	10 11 12 1
1272	Prerequisite – Introduction to Journalism or Photojournalism, Broadcast Journalism and Teacher Approval	

This is a laboratory course in which students will create a video supplement to the school yearbook, **The Railroader**. Students will be responsible for covering various school events and activities using video equipment and creating stories using footage, interviews and reporting skills. Students taking this course must be self-directed, with the ability to work with others. Leadership, cooperation and high standards of achievement are essential in all staff members. This course may be repeated for credit.

TECHNOLOGY EDUCATION

<u>COURSE</u>	<u>PREREQUISITE</u>	<u>GRADE LEVEL</u>	<u>CREDIT</u>	
7010	Woodworking Machinery & Techniques	9 10 11 12	.5	
7011-7012	Woodworking I	7010	10 11 12	1
7021-7022	Woodworking II	7011 and 7012 and Teacher Approval	11 12	1
7025-7026	Woodworking III and Teacher Approval	7021 and 7022	12	1
7041-7042	Laser Works	By Application Only	11 12	1-2
7053-7054	Intro to Engineering Design		9 10 11 12	1
7061-7062	Engineering Design	7053-7054	10 11 12	1
7071-7072	Architectural Design	7053-7054	10 11 12	1

NOTE: SOME TECHNOLOGY EDUCATION COURSES INVOLVE INDIVIDUAL STUDENT PROJECTS. THE STUDENT PAYS FOR THE MATERIALS FOR SUCH PROJECTS IN ADVANCE. COSTS VARY.

7010 **WOODWORKING MACHINERY & TECH.** 9 10 11 12 .5

This semester course is designed to introduce students to woods, materials, processes and techniques used in machine woodworking and in the care and use of woodworking tools and equipment. Students must provide their own safety glasses, lock and tape measure.

7020 **WOODWORKING MACHINERY & TECH.** 9 10 11 12 .5
 Recommendation – girls only enrollment

This semester course is designed to introduce students to woods, materials, processes, and techniques used in machine woodworking and in the care and use of woodworking tools and equipment. Students must provide their own safety glasses, lock and tape measure.

7011 **WOODWORKING I** 10 11 12 1
 7012 Prerequisite – Woodworking Machinery and Techniques

This full-year course is designed to introduce students to woods, materials, processes and techniques used in machine woodworking and in the care and use of woodworking tools and equipment. Students must provide their own safety glasses, lock and tape measure.

7021 **WOODWORKING II** 11 12 1
 7022 Prerequisite – Woodworking I and Teacher Approval

This course provides the student an opportunity to develop advanced skills in furniture design, construction and machine operation. This course is for the student who has shown exceptional ability in Woodworking I. Students must provide their own safety glasses lock and tape measure. Additional fees for individual projects will apply later in the school year.

7025	WOODWORKING III	12	1
7026	Prerequisite – Woodworking II and Teacher Approval		

This course provides the student an opportunity to develop advanced skills in furniture design, construction and machine operation. It is for the student who has shown exceptional ability in Woodworking II. Students will be provided an opportunity to Job Shadow at local industries. Students will design, manufacture and sell a product. Students must provide their own safety glasses, lock and tape measure. There will be fees for each individual project. This is a designated Tech Prep course through Hutchinson Community College.

7041	LASER WORKS	11 12	1-2
7042	Prerequisite – By Application Only, available from Instructor. Completion of Entrepreneurship/YEK or Woodworking II		

This course is designed to integrate skills students have learned in woodworking, marketing or entrepreneurship classes. These students will process orders, price and manufacture items using the laser engraving machine. This class will work closely with the entrepreneurship program at NHS. Students will set up projects for the laser through computer programs. **Computer skills required. This class may be repeated for credit.**

7053	INTRO TO ENGINEERING DESIGN	9 10 11 12	1
7054			

Students learn fundamentals of drafting using a design development process that enriches problem solving skills; students create and analyze models using specialized computer software.

7061	ENGINEERING DESIGN	10 11 12	1
7062	Prerequisite – Intro to Engineering Design		

This course provides students with an Introduction to Engineering Design. Students will become familiar with solid modeling using AutoDesk Inventor Professional and Visualization using AutoDesk Viz. This is a designated Tech Prep Course through Hutchinson Community College.

7071	ARCHITECTURAL DESIGN	10 11 12	1
7072	Prerequisite – Intro to Engineering Design		

This course provides students with an Introduction to Architectural Design. Students will become familiar with architectural design using AutoCad Architecture and Building Information Modeling using AutoDesk Revit. This is a designated Tech Prep Course through Hutchinson Community College.

8131	AGRI-BUSINESS OJT	12	1-2
8132	Prerequisite – Concurrent Enrollment in Agri-Business (8121 and 8122)		

This course is the on-the-job portion of course Agri-Business (8121-8122). This includes working in an approved ag-related area for approximately 5 hours per week with a minimum of 90 hours per semester for one credit. Ten hours per week with a minimum of 180 hours per semester are required for two credits.

8141	PRE-VOCATIONAL AG WELDING	10 11 12	1
8142			

This course is designed for students wanting to explore the career of professional welder. Pre-Voc Ag Welding is competency-based (achieve skill levels at the individual's pace) covering shop safety, arc welding, oxyacetylene, tig, mig welding and Plasma Arc and CNC Plasma Cutting. Students will be introduced to the FFA organization, have the opportunity to become an active member and compete in related CDE's and encouraged to develop SAE's.

8151	ANIMAL, PLANT AND SOIL SCIENCE	10 11 12	1
8152			

This course will use a practical approach to the study of plants and animals. It will integrate the concepts of biology with the field of agriculture. Animal, Plant and Soil Science will broaden a student's view and understanding of animal and biological science principles of focusing on daily life applications. Learning is enhanced through the on-site hands learning lab. Lab activities include artificial insemination, embryo transfer work and general livestock health care training. Science and vocational outcomes will be incorporated into the course. Students will be introduced to the FFA organization, have the opportunity to become an active member and compete in related CDE's and encouraged to develop SAE's.

8161	WILDLIFE MANAGEMENT AND NATURAL	10 11 12	1
8162	RESOURCES		

This course gives a comprehensive approach to our natural resources and how they can be preserved. Students will develop an awareness of renewable and nonrenewable natural resources. Students will be able to identify major wildlife species and identify occupations related to the areas of Natural Resources and Wildlife Management. Students will be encouraged to incorporate or develop SAE's and compete in related CDE's.

NOTE: Animal, Plant and Soil Science and Wildlife Management and Natural Resources classes are generally offered on an alternating yearly basis

8171	SMALL ENGINE REPAIR	10 11 12	1
8172	Prerequisite – 8181-8182 or 8101-8102 or 8141-8142		

In this course, students will develop basic topics covering theory, maintenance, tear down and reassembly, troubleshooting and all major components of the basic systems of small gasoline engines. Other topics covered include tool and equipment identification, safety, and use. Leadership and personal development skills are taught through the integration of FFA career development skills and SAE activities. This is a designated Tech Prep course through Hutchinson Community College.

8181	MODERN AG MECHANICS SKILLS	9 10	1
8182	Recommendation – none		

This course of study will develop basic skills in Agricultural Mechanics. This will include Leadership; Power and Hand Tools; Arc Welding; Gas Welding and Cutting; Homestead Electricity; Internal Combustion Engine and Safety and Career Orientation. Included in this course will be Agriculture Hazardous, Occupational Safety training. Students will receive a safety certificate. Leadership and Personal Development skills are taught through the integration of FFA Career development skills and SAE activities.

8183	ADVANCED MODERN AG MECHANICS	10 11	1
8184	Pre-requisite: Modern Ag Mechanic, Technology Ag Science I		

This is an upper level course with major emphasis on careers in mechanics and engineering. Instruction units include hydraulic systems, electrical systems, power transmission, milling machine and lathe. Students may construct or repair equipment in the area of their specialty. FFA member ship is strongly encouraged as students will participate in leadership activities at the District and State level.

8191	HORTICULTURE	10 11 12	1
8192			

This course provides students with an opportunity to study greenhouse management, landscaping, turf management, and fruit and vegetable production. Students will propagate, grow bedding plants, operate the school greenhouse, and complete a landscape design. Some introduction to forestry and environmental careers is included. Students will participate in the FFA activities including Public Speaking, Judging, and Problem Solving.

8193	HORTICULTURE II	11 12	1
8194	Prerequisite: Horticulture		

This course is designed to provide students with an overview of the horticulture industry. Emphasis is placed on information and skills needed to pass following current and future state licensing tests: Horticulture Services, Landscape Contracting, Certified Nursery Professional, and Retail Florist. Students will be prepared to enter fields in the green industry. Topics of study include: Greenhouse management, recreational and turf grass management, basic florist design, pest control, floriculture, and marketing. Scientific, mathematical, economic, and technical principles are reinforced in this course, as are communication and critical thinking skills. Work-based learning strategies appropriate for this course are field trips and activities in the school greenhouse or lab facility. Supervised agricultural experience programs (SAE) and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.

8185	AGRICULTURE EQUIPMENT CONSTRUCTION	12	1
8186	Pre-requisite: lower level Ag mechanic course		

Agriculture Equipment Construction is designed for seniors who want to study the design and operation of Ag equipment. Students will apply mechanical skills to the design and construction of agriculture equipment. Students will learn blueprint reading and technical reading for the purpose of construction and assembling agriculture equipment. FFA membership is required. Projects will be entered into the appropriate state or national competitive event for evaluation.

8187	AG POWER MECHANICS	11 12	1
8188	Pre-requisite: lower level Ag mechanic course		

Ag Power Mechanics will give the student hands on opportunities to repair and maintain internal combustion engines, electrical, and hydraulic systems. Scientific, mathematical, economic, and technical principles are reinforced in this course, as are communication and critical thinking skills. Work-based learning strategies appropriate for this course are field trips and activities in the school lab facility. Supervised agricultural experience programs (SAE) and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.

8231	MACHINE TECHNOLOGY II	12	2-4
8232	Prerequisite – Machine Technology I		
8233	By Application Only – available from Counselor or Instructor		
8234			
8235	Students will apply advanced machining techniques while working on individual projects.		
8236	Emphasis will be placed on blueprint reading and related math skills. Instruction will be given on		
8237	C.N.C., computer controlled machines, and S.P.C., statistical process control, a quality control		
8238	system used in industry. This program will prepare students for direct entry into manufacturing or can also serve as recommendation for students wishing to pursue an engineering degree or other advanced technical training. Successful completion of this course will mean you could earn college credit to be used toward an Associate of Applied Science Degree with Hutchinson Community College.		

8241	INTRODUCTION TO BUILDING TRADES	10	.5-1
8242	Limited Enrollment		

This is a new elective course offered to sophomores only to give them exposure to some of the basic technical skills of the construction industry. The students will participate in building a house on the on the Newton High School site that will be auctioned at the end of the school year. Through this experience, the students can decide whether they want to enroll in Building Trades I which provides more in-depth training and prepares the students for employment in the construction industry.

8251	BUILDING TRADES TECHNOLOGY I	11 12	2
8252	Requirement – By Application only – available from Counselor or Instructor		
8253			
8254	This course prepares students for employment in the construction industry and develops basic skills in layout work, framing, interior wall finish, and roof coverings. The major portion of class time is spent constructing a house.		

8261	BUILDING TRADES TECHNOLOGY II	12	2
8262	Prerequisite – Building Trades I		
8263	By Application Only – available from Counselor or Instructor		
8264			
	This course expands upon basic skills learned in Building Trades Technology I, and students also gain new and more technical skills required in the construction industry. Advanced blueprint reading, rafter layout, concrete formwork, and cabinet construction are included. Successful completion of this course means you could earn college credits toward an Associate of Applied Science degree at Hutchinson Community College.		

8301	WELDING TECHNOLOGY I	11 12	4
8302	Requirement – By Application Only – available from Counselor		
8303			
8304	Welding Technology I and II make up a two year career preparatory program designed to place		
8305	students directly into the welding industry. This large clock hour block comprehensive		
8306	welding program covering courses in both the theory and practical applications of Shielded		
8307	Metal Arc Welding, oxyacetylene welding, cutting, brazing, soldering, and industrial shop		
8308	safety. Related areas that a student will complete in welding include air carbon arc gouging, safe use of manufacturing equipment, shop math and measuring. Throughout the class, positive work behaviors such as regular attendance, leadership, teamwork and communication skills are emphasized. These and other work skills will be accomplished through the student's participation in the Skills USA VICA Student Organization. Seniors who enroll in Welding Technology I have the option of completing their second year through Hutchinson Community College (Newton Center). Students are expected to provide their own work clothing, which includes steel-toed work boots, gloves, pliers, welding leathers, welding hood, and personal tools. There are no initial fees.		
8311	WELDING TECHNOLOGY II	12	4
8312	Prerequisite – Welding Technology I		
8313	By Application Only – available from Counselor		
8314			
8315	This large clock hour block program is a continuation of Welding Technology I. Courses in Gas		
8316	Metal Arc Welding (MIG), Gas Tungsten Arc Welding (TIG), blueprint reading, plasma arc		
8317	cutting, and Computer Numerical Control cutting machine techniques are covered. Students will		
8318	also learn robotic welding operations. Students will demonstrate shop safety, positive work behaviors, communication skills and employment skills. Students will also gain experience on live welding projects. Field trips to manufacturing shops in the area will be provided for students to promote occupational awareness. On successful completion of this program students may enroll in Hutchinson Community College's Associate Degree program. Students may then request transfer of welding program credits into their degree program (up to 32 college credits).		

8420	CREATIVE SEWING III	10 11 12	.5
	Prerequisite – Creative Sewing II or Teacher Approval		

Students will acquire many advanced sewing construction techniques and knowledge during the construction of individualized fabric projects. Students will be expected to pay for all materials needed for classroom projects. Clothing, household and craft times can be made in this class.

8430	FASHION STRATEGIES	10 11 12	.5
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This class promotes the concept of having a good self-image through the study of grooming and fashions. Students will learn to plan their wardrobe by being smart shoppers with a keen eye for line, color, and design. The study of fashions for men, women and children will provide the student a greater understanding for fashion details and the development of the fashion industry. A variety of lab experiences and guest speakers, which will enable students to be responsible consumers and have more self confidence at home, school and at work. Fabric will be needed for one project.

8440	FOOD FOR LIFE	9 10 11 12	.5
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Food for Life teaches management and consumer skills to enable students to plan and prepare meals when they are on their own. Studying and preparing meals from other countries will encourage an understanding of other cultures. The food guide pyramid and nutritional guidelines will be emphasized to help students understand the basics of a healthy lifestyle.

8450	NUTRITION AND WELLNESS	10 11 12	.5
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Nutrition and Wellness focuses on wellness and how food affects our body. We prepare and eat food for our bodies' best use by using dietary guidelines. Wellness is stressed with exercise and the activity pyramid by setting goals for life long wellness.

8461 8462	FOOD SCIENCE	10 11 12	.5-1
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Food Science is a two-semester class in which students use the scientific method to study the biochemistry of food and nutrition. The preparation of edible food products is not the primary purpose, but from time to time such products will be the result of experiments performed. In this class students develop laboratory, writing and reasoning skills.

8470	CHILD'S WORLD	10 11 12	.5
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Child's World focuses on developing essential parenting skills, nurturing children's development and guiding children's behavior. Guest speakers, group activities, and discussion will enrich student's experiences. Field trips will help students develop an understanding of childhood development from birth through the early elementary years.

8480 MARRIAGE AND FAMILY 10 11 12 .5

This course focuses on the function and significance of human relationships within the family/individual units. Students will learn positive ways to communicate their feelings and maintain relationships in preparation for adulthood, family life and the workplace. Through stress management techniques, students will learn effective ways to improve their responses to individual and family crises. Guest speakers, group activities and discussions will enrich the student's experiences.

8500 HOME/INTERIOR 10 11 12 .5

This semester class provides students with the knowledge and skills needed to select interior color, design and furnishings for their future home or apartment. To gain practical experience, the class will select wall and counter tops and appliances for the house built by the vocational building trades class. Students will explore careers in housing and home furnishings. Field trips and guest speakers will enrich the student's experiences.

8510 INDEPENDENT LIVING 10 11 12 .5

This class will help you learn what to expect when living on your own. You will learn practical aspects of single survival whether preparing for college or a job. What will your total living expenses be and will you be able to afford it? Do you know your rights and responsibilities as an individual? Students will explore careers and the skills and educational requirements needed for those careers. Through group discussions, speakers and field trips, the following topics will also be covered: finding and keeping a job, housing, transportation, insurance decisions, quick meals to prepare and shopping strategies.

SPECIAL PROGRAMS

	TEACHER AIDE/OFFICE AIDE	11	12	.5-1
	Requirement – By Application Only			

Only one section per semester can be taken by the student; only one credit may apply toward graduation; enrollment is for credit/no-credit only. See Counselor for Aide Course Number.

2780	COMMUNITY AIDE	12		.5-1
	Requirement – By Application Only			

Students interested in serving as aides should contact area schools for information about openings. Applications may be obtained in the student service office. Both administration and area school administrator must grant approval.

7991	CAREER INTERNSHIP	12		.5
7992	Requirement – Students must complete an application (available from Ms. Lucas at Brooks Trade Center). The application should be returned to Ms. Lucas several weeks prior to the semester of study.			
	No medical – Students interested in Medical Careers should enroll in Health Careers Class.			

This course is designed for students interested in learning more about a particular career field. Career internship students work with an adult active in the career of their choice, and do a combination of observation and research. Students must have an idea of a specific career to study and be willing to provide transportation to and from the internship site. Minimum requirements for evaluation include a reflective essay or project, a daily journal and attendance logs.

	COLLEGE EXTENSION	11	12	1-2
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Requirement – Students must be in good standing at Newton High School

A student may elect to take college classes for dual credit while at Newton High School. To earn dual credit, the student must inform his/her counselor of the intent, turn in verification of enrollment in the class and perform at a satisfactory level in the course. **One-half credit is given for each three to five credit hour college course.** Students must be a junior, senior, or be on a gifted IEP to enroll. Each school may have a minimum standard for acceptance. See your counselor for a permission form.

7950	Bethel Extension
7960	WSU Extension
7965	Butler CC Extension
7970	Hesston Extension
7975	Cowley CC Extension
7980	Hutchinson CC Extension