

# NEW LOTHROP HIGH SCHOOL COURSE GUIDE

## NLHS Graduation Requirements: 23 Credits

### **English-4 credits**

English 9, English 10, English 11, and English 12  
AP Literature & Comp. and AP Language & Comp. may replace English 11 and/or English 12

### **Social Studies-3 credits**

US History and Geography; World History and Geography; and Economics/Government

### **Mathematics-4 credits**

Algebra I, Geometry, (Adv) Algebra II, and an additional credit in a math-related course

Note: "Math-related" courses are Adv. Math, AP Calc, Acct/Personal Finance, Pre-Algebra, Physics and Agribusiness

Note: The state requires completion of one math course during the senior year

Note: A student who earns Algebra I credit in 8<sup>th</sup> grade will be required to take an additional four years of math in high school (9<sup>th</sup> -12<sup>th</sup> grade). Algebra I credit earned in 8<sup>th</sup> grade will be put on the student's high school transcript, but it will not count toward completing 4 credits of math during high school and will not affect the student's high school GPA.

### **Science-3 credits**

Biology, Human Anatomy/Systems and (Adv) Chemistry

### **OR**

Botany, Zoology, and (Adv) Chemistry

Note: Other science courses offered include Natural Resources and Physics

Note: While only 3 science credits are required for graduation, it is strongly recommended that college bound students complete a fourth science course.

Note: The Agriculture/FFA program suggests students take the following courses in order- Botany or Zoology, Natural Resources, & Agribusiness

**Health/PE-1 credit**

Health (1/2 credit) and Physical Education (1/2 credit)

**Visual, Performing or Applied Arts (VPAA) -1 credit**

Courses include Choir, Band, Business Management & Technology, Yearbook, Art, and Electrical Program, Building Trades/Carpentry, and (Adv)Industrial Arts Technology

**World Language – 2 credits**

There has been a recent change in the World Language Requirement. A student may complete this requirement in one of the following ways:

- 1.) 2 credits of World Language (Spanish I & II offered at NLHS);
- 2.) 1 credit of World Language and 1 CTE credit;
- 3.) 1 credit of World Language and 1 additional VPAA credit

**Online Learning Experience/Course**

The state-required online learning experience is part of NLHS' existing curriculum. A separate course is no longer required.

*\*Students interested in online high school level courses must submit an application to by the end of the school year in order to take a course the following school year. Applications are available in the high school library. Course selections should be aligned to the student's career interests and/or be courses that we do not offer at New Lothrop High School. Our School Board approved course catalog is available via the third-party [gennet.us](http://gennet.us) course catalog.*

**Additional Electives-5 credits in addition to required courses**

**Education Development Plan**-NLHS uses Career Cruising to maintain a student EDP throughout high school. Students may log in at any time to update their educational and career goals, take career interest/skill inventories, and much more!

# NLHS Course Catalog

## English Language Arts Courses

### English 7

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p><b>This English course covers the areas of literature, grammar, vocabulary, and writing. Students will study a wide variety of literary types including poetry, drama, short stories, and nonfiction novels. They also practice writing and speaking for different purposes and audiences, and engage in a general study of the English language. The seventh grade English program is designed to develop and improve students' communication and critical thinking skills.</b></p> <p><b>In this level, students extend their exploration of the role of personal voice in writing. They look at persuasive techniques, appeals, and language to inform their analyses and inferences for audience, purpose, and point of view. Through consistent practice and learning strategies, students continue to hone their reading and writing skills. Oral presentations and collaborative work give them opportunities to improve interpersonal communication skills as well as more formal presentation skills.</b></p>

## English 8

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p>In this course, students will study literature selected for content, relevance, and reading ability level. Vocabulary development is integrated throughout all reading selections. Students in this level will write creative and expository writings, and will respond to prompts daily in order to enhance critical thinking skills. Students will continue to apply the reading strategies they have been taught to various kinds of short texts, content area text, and novels. Oral and written responses will be made after every reading with specific focus on paraphrasing and summarizing the text.</p> <p>In this level, students will focus on analysis of the protagonist and character traits, while also reading and evaluating elements of both fiction and nonfiction texts. Students will continue to hone their writing skills through projects such as writing essays to define a concept, persuade an audience, and present point of view. Students' speaking, listening, and performance skills are enhanced with opportunities for both formal and informal presentations.</p>

## English 9

<b>Semester One (.5 Credit)</b>	1415H202021
<b>Semester Two (.5 Credit)</b>	1415H202022
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This is a required class for all 9th graders that covers composition as well as literature. Composition will include a complete review of punctuation along with the study of how paragraphs and academic papers should be constructed and organized.</p> <p>Literature will involve the reading of various forms of literature along with discussions and a variety of written responses to the material read.</p> <p>The student will study selected literature presented in a variety of genre and demonstrate comprehension of material read. They will identify how literary techniques are used in literature and examine how skillful writers build interest in a story.</p> <p>Students will also participate in class discussion based on literature and study a Shakespearean play.</p> <p>Finally, students will participate in Silent Sustained Reading (SSR) one hour per week, reading a book of his/her own choosing, and periodically writing a response to that book.</p>

## English 10

<b>Semester One (.5 Credit)</b>	<b>1415H250011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H250012</b>
<b>Prerequisites</b>	<b>English 9</b>
<b>Course Description</b>	<p><b>English 10 requires students to utilize all three of the major Language Arts skills: reading, writing, and speaking. The class provides many opportunities for students to master these abilities. The class is taught in a thematic manner; therefore the students will be expected to demonstrate the ability to relate the ideas and issues from one piece of literature to the ideas and issues in other pieces of literature, as well as their own lives.</b></p> <p><b>The student will read at least one novel independently each marking period. They will respond to literature in creative, personal, formal, and analytical ways. Each student will fulfill the requirements of writing the following: persuasive paper, letter, literature response, creative writing, and a research project. The students will also understand plagiarism and its consequences.</b></p> <p><b>In English 10, each student will read literature from all genres, such as stories, novels, poetry, drama, essays, and news articles. They will present projects orally to the rest of the class and discuss literature in whole class and small group settings.</b></p> <p><b>The students will also maintain notes on authors, literary techniques, and common terminology as well as identify, in professional writing, various literary techniques.</b></p>

## English 11

<b>Semester One (.5 Credit)</b>	1415H252011
<b>Semester Two (.5 Credit)</b>	1415H252012
<b>Prerequisites</b>	<b>English 10</b>
<b>Course Description</b>	<p><b>English 11 is a literature-based class designed to reinforce students' reading and writing skills, while at the same time expanding their literary knowledge.</b></p> <p><b>Each student will respond to literature in a creative, personal, formal, and analytical way. They will also demonstrate use of grammatically correct sentences and extended sentence structure. Students will follow the writing process and write well-constructed essays that include a thesis statement, introduction, organized body paragraphs, and a conclusion. In English 11, each student will write a properly documented MLA or APA mini research paper. They will also read short stories, essays, poetry, and novels for comprehension, interpretation, and enjoyment!</b></p> <p><b>Each student is expected to participate in class discussion based on literature readings and recognize literary terms, devices, and techniques. Students will increase vocabulary through reading and writing and they will understand plagiarism and its consequences.</b></p>

## English 12

<b>Semester One (.5 Credit)</b>	1415H212011
<b>Semester Two (.5 Credit)</b>	1415H212012
<b>Prerequisites</b>	<b>English 11</b>
<b>Course Description</b>	<p><b>This class includes studies in college research and writing, and English Literature. Students will develop the ability to write several types of academic papers, and develop the ability to read, comprehend and analyze English literature.</b></p> <p><b>The student will read the writings of major English novelists, poets and playwrights and respond to literature in creative, personal, formal, and analytical ways.</b></p> <p><b>Students will complete unit projects in small groups and present them to the class. They will complete several smaller papers and in-class assignments. They will also participate in the writing process and demonstrate the ability to critique his or her own writing as well as other students' writing.</b></p> <p><b>Students will also use research as support in a major persuasive paper and understand plagiarism and its consequences.</b></p>



## Advanced Placement (AP) English Language & Composition

<b>Semester One (.5 Credit)</b>	<b>1415H215014</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H215015</b>
<b>Prerequisites</b>	<b>English 10 AP Potential Recommendation-based on SAT &amp; PSAT</b>
<b>Course Description</b>	<p><b>Based on the Advanced Placement Language and Composition College Board Course Description, students will read a broad variety of nonfiction and fiction prose while learning to perform three overarching analytical activities: rhetorical analysis, argumentation, and synthesis. They will understand rhetorical analysis through close reading, discern the premises of writers' pieces and construct and write their own argumentation regarding those pieces, and synthesize their analyses in writing by incorporating numerous additional sources to support their analyses. Following the introductory unit (the first three chapters of the anchor text), each successive unit will follow anchor text themes, to which students can easily relate. Students will work independently, in small groups, and as a class. Literary exploration will also be conducted through Socratic pedagogical methods of discussion.</b></p> <p><b>Opportunity to earn college credit by taking AP end of course exam in May. Cost of exam approx. \$90.</b></p>

**Advanced Placement (AP) English Literature & Composition**

<b>Semester One (.5 Credit)</b>	1415H215011
<b>Semester Two (.5 Credit)</b>	1415H215012
<b>Prerequisites</b>	<b>English 10 AP Potential Recommendation-based on SAT &amp; PSAT</b>
<b>Course Description</b>	<p><b>Students will read a broad variety of literature and then discuss, analyze, and write about those readings. Materials covered are divided into three main parts: Literature of the Ancient World; poetry and drama of the Middle Ages, Renaissance and Modern Age; and novels of the Eighteenth through the Twenty-First Centuries. The analysis of literary pieces will guide students to synthesize knowledge of various theoretical approaches to literature through specific works so that they may write complex analytical and critical essays. Students will work independently, in small groups, and as a class, exploring literature through Socratic pedagogical methods of discussion.</b></p> <p><b>Opportunity to earn college credit by taking AP end of course exam in May. Cost of exam approx. \$90.</b></p>

## Science Courses

### JH Animal Science

<b>9 weeks</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<b>Students will be engaged in a variety of classroom assignments, challenging laboratory, real world and hands-on projects to meet content benchmark requirements. Students will be held to high expectations regarding their quality of work, safety, and personal behavior. Understanding vocabulary, laboratory technique, and experimental design will be consistent components of this course. Leadership Skill and Career Development are concepts consistently reinforced throughout the class content. Students will be working both in teams and individually throughout this course and will have the opportunity to participate as members of the New Lothrop FFA Chapter, which is part of a national student leadership organization. Events outside of class time are encouraged for excelled student development.</b>

### Science 7

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<b>Throughout this course we will focus on Life Science. We will begin with molecules and organisms, move into ecosystems, take a closer look at heredity and finish with biological evolution, unity and diversity. During this course, you will work independently as well as in groups.</b>

### Science 8

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	Throughout this course we will focus on Earth and Space Science. We will begin with space, move into Earth's history, take a closer look at water systems and finish with weather and climate. During this course, you will work independently as well as in groups.

### Agriculture Leadership

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	Agriculture Leadership Independent Study is designed for students who will be going into some type of agriculture field, or a field where leadership skills will be needed. The course will be a mixture of leadership practice, as well as helping with day to day operations of running the New Lothrop FFA Chapter. The class can be directed more towards leadership or towards the FFA responsibilities, depending on the students' needs and future ambitions.

## Biology

<b>Semester One (.5 Credit)</b>	1415H817011
<b>Semester Two (.5 Credit)</b>	1415H817012
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This course complies with the requirements of the Michigan Merit Curriculum and all course content aligns with the standards as mandated by the Michigan Department of Education. Students will engage in a wide variety of topics expected in a regular course of study in biology. Interwoven throughout the course topics, students will engage in Scientific Inquiry and Scientific Reflection and examine social implications of the same.</p> <p>In the area of Organization/Development of Living Things, students will explore cell function, plants as producers, animals as consumers, common elements, transformation of matter and energy in cells, cell differentiation, organic molecules, proteins, maintaining environmental stability, homeostasis, cell specialization, living organism composition, energy transfer, and internal/external cell regulation.</p> <p>In the area of Genetics, students will study reproduction, heredity and environment, genetics and inherited traits, DNA, DNA/RNA/protein synthesis, mitosis and meiosis, genetic variation, and recombinant DNA.</p> <p>And finally, in the category of Evolution and Biodiversity, students will gain an understanding of survival and extinction, classification, the theory of evolution, molecular evidence, and natural selection.</p>

## Zoology

<b>Semester One (.5 Credit)</b>	1415H841013
<b>Semester Two (.5 Credit)</b>	1415H841014
<b>Prerequisites</b>	
<b>Course Description</b>	<p>Students will be engaged in a variety of classroom assignments, challenging laboratory, real world and hands-on projects to meet content benchmark requirements. Students will be held to high expectations regarding their quality of work, safety, and personal behavior. Understanding vocabulary, laboratory technique, and experimental design will be consistent components of this course. Leadership Skills, Business Management, and Career Development are concepts consistently reinforced throughout the Zoology content.</p> <p>Students will be working both in teams and individually throughout this course and will have the opportunity to participate as members of the New Lothrop FFA Chapter, which is part of a national student leadership organization. Events outside of class time are encouraged for excelled student development. This course along with Botany has been Board and University approved to meet the High School and College Prep requirement for Biology.</p> <p>*May earn CTE articulated college credit; see instructor for details.</p>

## Botany

<b>Semester One (.5 Credit)</b>	<b>1415H841021</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H841022</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This course is a study of Plant Sciences and Biology concepts, designed to form the foundation for further study in any aspect of Science or Agriculture Sciences. Students will be learning through textbook, laboratory, supplemental resources, and hands on in the greenhouse. This course, along with Zoology has been approved to meet the High School requirement for Biology.</p> <p>Students will have the opportunity to participate as members in the New Lothrop FFA Chapter, which is part of a national student organization. The FFA is committed to develop students potential for premier leadership, personal growth, and career success through Agriculture Education. Students will have various opportunities to attend various District, Regional, State and National contests, conferences, or conventions. Events outside of class are recommended for student development but are not required.</p> <p><b>*May earn CTE articulated college credit; see instructor for details.</b></p>

## Chemistry

<b>Semester One (.5 Credit)</b>	<b>1415H815011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H815012</b>
<b>Prerequisites</b>	<b>Biology &amp; Human Anatomy/Systems OR Botany &amp; Zoology</b>
<b>Course Description</b>	<p>The class is designed to provide all students the opportunity to master the Essential Chemistry Content Expectations described in the State of Michigan High School Content Expectations document so that students can pass the State of Michigan High School Secondary Credit Assessment test developed for Chemistry. Students will also develop work habits and interpersonal skills that will prepare them to succeed in their endeavors after High School. Students will receive excellent instruction and gain an appreciation for many ways that chemistry affects our lives.</p> <p>Students will take notes and be questioned about their understanding, generate and investigate question, review and memorize important facts, work in groups and work independently to research and study Chemistry.</p> <p>Students will use scientific equipment, collect data with adequate precision and accuracy to answer our questions, retrieve, tabulate and analyze data collected by other investigators, form a testable hypothesis, evaluate scientific data, and other activities routinely carried out by scientists.</p> <p>Students will have an opportunity to participate in a “service learning” activity with elementary school children in the winter months in which we will help grade Science Fair projects.</p>



### Advanced Chemistry

<b>Semester One (.5 Credit)</b>	<b>1415H842021</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H842022</b>
<b>Prerequisites</b>	<b>Science: Biology &amp; Human Anatomy/Systems OR Botany &amp; Zoology Math: Algebra I, Geometry &amp; Currently Enrolled in Adv. Algebra II or Advanced Math</b>
<b>Course Description</b>	<p>This course deals with the composition and reactions of matter. Major topics will be the structure of matter, chemical equations, atomic and molecular theory, chemical kinetics and equilibrium, acids and bases, and a brief introduction to organic chemistry. Laboratory experiments will be used to verify the principles studied in each area.</p> <p>In this course, students will master the use of the metric system, study the basic structure of matter, and examine the basic assumptions of the Kinetic-Molecular theory. Students will learn the symbols of the more important elements, assess the importance and structure of the periodic chart and analyze the two basic types of bonds holding atoms together.</p> <p>Students will conduct laboratory activities to verify the laws of chemistry under investigation and recognize the use of the principles of chemistry in the world around them.</p>

## Physics

<b>Semester One (.5 Credit)</b>	<b>1415H816011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H816012</b>
<b>Prerequisites</b>	<b>Adv. Algebra II &amp; Adv. Chemistry</b>
<b>Course Description</b>	<b>Students will be introduced to forces and motion, heat energy, wave transfer of energy and nuclear reactions. Included in these main topics are conditions and compositions of forces, rectilinear and curvilinear motion, work, power, energy, concept of temperature, states of matter, the kinetic theory, the laws of thermodynamics, types of waves and their characteristics, and properties of sound and light. Laboratory experiments will be used to verify the principles studied in each area.</b>

## Human Anatomy/Systems

<b>Semester One (.5 Credit)</b>	<b>1415H814011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H814012</b>
<b>Prerequisites</b>	<b>Biology</b>
<b>Course Description</b>	<p><b>This year-long advanced science course engages students in an intensive study of the major systems of the human body as outlined in the New Lothrop High School Human Anatomy Science Curriculum authorized by the New Lothrop Board of Education. Students will utilize a variety of learning activities including lecture, films, animal dissection, laboratory experiences, guest speakers, research, and projects to gain a solid understanding of the systems, tissue, and physiology of the major body systems.</b></p> <p><b>The systems examined will include skeletal, muscular, excretory, circulatory, digestive, nervous, respiratory, reproductive, endocrine, immune, and integumentary. In addition, a brief overview of major pathophysiology affecting each system will be discussed. Students also participate in CPR training conducted by Twin Township Ambulance, Inc., in New Lothrop, Michigan in early spring.</b></p>

## Natural Resources

<b>Semester One (.5 Credit)</b>	<b>1415H845021</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H845022</b>
<b>Prerequisites</b>	<b>Botany &amp; Zoology are recommended.</b>
<b>Course Description</b>	<p>If you appreciate the outdoors and enjoy natural resources (hunting, fishing, hiking, camping and wildlife viewing) this class will provide a better understanding of our local natural resources and the need to conserve them for future generations. This course is designed to provide students a background in natural resources and its many career opportunities.</p> <p>Students will be involved with hands-on projects investigating soil erosion, water pollution, wildlife management, forestry production, land management and the effects of management practices on the environment. Students will also explore soil conservation practices, water and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, fish, wetlands, and pond management, management of recreational areas, and outdoor safety. “Hands-on” learning activities encourage students to investigate areas of environmental concern including: identification and management of ecosystems, management of waste, chemicals and the environment, soil conservation, land uses, regulations, and ordinances, water quality and air quality.</p> <p>Every student enrolled in an Agriculture Science class is automatically a member of the New Lothrop FFA Chapter, which is part of the largest national student organization in the United States. Students will be encouraged to participate in FFA events; extra credit will be offered for attending some of these events, such as: monthly membership meetings, ceremonies,</p>

	labor auction, and chapter banquet. *May earn CTE articulated college credit; see instructor for details.
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### Mathematics Courses

#### Math 7

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	In this course students will learn to analyze proportional relationships, use order of operations, write and analyze equivalent expressions, write and analyze numerical and algebraic expressions, work with geometric figures, learn about geometric measurement, study sampling, and learn about statistics and probability. Students will make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity repeated patterns.

#### Math 8

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	In this course students will be able to fluently work with rational and irrational numbers, use rational and integer exponents, solve linear equations, write and manipulate functions, write functions to model data, learn about similarity and congruence, understand and prove the Pythagorean Theorem, understand and calculate the volume of geometric figures, and work with bivariate data. Students will make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable

	arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity repeated patterns.
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### Pre-Algebra

<b>Semester One (.5 Credit)</b>	<b>1415H613011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H613012</b>
<b>Prerequisites</b>	
<b>Course Description</b>	This course is designed for students who need to strengthen basic math skills before advancing to Algebra I. The focus of the course includes, practice of basic operations on the set of real numbers, as well as creating, solving, graphing, and interpreting functions. Students who enroll in pre-algebra should advance through Algebra I, Geometry, and Algebra II in their high school career.

### Algebra I

<b>Semester One (.5 Credit)</b>	<b>1415H605011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H605012</b>
<b>Prerequisites</b>	
<b>Course Description</b>	Students explore the relationships between quantities, linear models, exponential models, and quadratic functions. Focus and coherence is developed through reasoning with equations, and modeling. Students will summarize, represent, and interpret data on one and two variables.

## Geometry

<b>Semester One (.5 Credit)</b>	<b>1415H606011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H606021</b>
<b>Prerequisites</b>	<b>Algebra I</b>
<b>Course Description</b>	<b>Focus is on congruence, similarity, proof, and constructions. Students use and apply trigonometry and coordinate geometry. Exploration of circles and applications of probability are included in this course.</b>

## Algebra II

<b>Semester One (.5 Credit)</b>	<b>1415H607021</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H607022</b>
<b>Prerequisites</b>	<b>Geometry and department recommendation</b>
<b>Course Description</b>	<p><b>Content in this year long non-college prep course will focus on the critical areas of the Algebra II Common Core Mathematics Curriculum. This is the third in the set of courses in abstract mathematics. Students will continue in the areas of study established in Algebra I and Geometry.</b></p> <p><b>The student will:</b></p> <ul style="list-style-type: none"><li><b>• Relate polynomial arithmetic and base-ten computation, focusing on properties of operations, particularly the distributive property.</b></li><li><b>• Relate multiplication of polynomials with multiplication of multi-digit integers, and division of polynomials with long division of integers.</b></li></ul>

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|  | <ul style="list-style-type: none"><li>• <b>Identify zeros of polynomials, including complex zeros of quadratic polynomials, and make connections between zeros of polynomials and solutions of polynomial equations.</b></li><li>• <b>Explore the effects of transformations on graphs of diverse functions, including functions arising in an application, in order to abstract the general principle that transformations on a graph always have the same effect regardless of the type of the underlying function.</b></li><li>• <b>Identify appropriate types of functions to model a situation, adjust parameters to improve the model, and compare models by analyzing appropriateness of fit and making judgments about the domain over which a model is a good fit.</b></li><li>• <b>Relate to different types of data and to probability distributions.</b></li><li>• <b>Identify different ways of collecting data—including sample surveys, experiments, and simulations—and the role that randomness and careful design play in the conclusions that can be drawn.</b></li></ul> |
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### Advanced Algebra II

<b>Semester One (.5 Credit)</b>	<b>1415H111111</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H111112</b>
<b>Prerequisites</b>	<b>Geometry &amp; Department recommendation</b>
<b>Course Description</b>	<b>This is a year-long, high school level course. Students will expand upon the content studied in Algebra I and Geometry. Emphasis will be placed upon polynomial, rational, and radical relationships; trigonometric functions; modeling with functions; and inferences and conclusions from data. Lecture, note-taking, group work, hands-on activities, and general discussion will be the main modes of instruction.</b>

### Advanced Math

<b>Semester One (.5 Credit)</b>	<b>1415H608011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H608012</b>
<b>Prerequisites</b>	<b>Advanced Algebra II</b>
<b>Course Description</b>	<b>This course is designed to be the bridge to college mathematics. Students will review some algebraic skills and explore polynomial, natural log, exponential and trigonometric functions. Emphasis will be placed on sequences and series and the development of the idea of limit. Students will also be introduced to the derived function.</b>

### Advanced Placement (AP) Calculus

<b>Semester One (.5 Credit)</b>	<b>1415H609011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H609022</b>
<b>Prerequisites</b>	<b>Advanced Math</b>
<b>Course Description</b>	<p>This course is designed to be roughly equivalent to a first year college calculus course. First semester will cover differential calculus including rates of change, various forms of derivatives, and the applications of derivatives. Integral calculus will be emphasized second semester with topics including the process of integration, applications of definite integrals, various methods of integration, and analysis of transcendental functions. The course is not only designed to lay a foundation for college coursework but also to prepare them for the Advanced Placement Calculus AP Exam which can be taken in the spring to earn college credit in calculus. Cost of exam approx. \$90.</p>

### Physics

<b>Semester One (.5 Credit)</b>	<b>1415H816011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H816012</b>
<b>Prerequisites</b>	<b>Advanced Algebra II</b>
<b>Course Description</b>	<p>Students will review the metric system of measurements. They will be introduced to forces and motion, heat energy, wave transfer of energy and nuclear reactions. Included in these main topics are conditions and compositions of forces, rectilinear and curvilinear motion, work, power, energy, concept of temperature, states of matter, the kinetic theory, the laws of thermodynamics, types of waves and their characteristics, and properties of sound and light.</p>

	Laboratory experiments will be used to verify the principles studied in each area.
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**Personal Finance**

<b>Semester One (.5 Credit)</b>	<b>1415H195015</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H195016</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>The Personal Finance class is a comprehensive coverage of personal and business-related math topics. This class will prepare students to be smart shoppers, informed taxpayers, and valued employees. This class will offer students the opportunity to learn financial literacy skills which will allow them to become successful, fiscally responsible adults.</p> <p>This class will ensure that students have lifelong math skills in areas of financial literacy such as, but not limited to, the following: banking services, credit cards, loans, owning vs. renting a home or car, insurance and investments, calculating a household budget, business costs, mortgages, installment loans, and retirement planning.</p> <p>As an added benefit, if taken during the senior year, this business class will also help students fulfill their graduation requirements since it could be counted as a fourth year math-related class.</p> <p>*May earn CTE articulated college credit; see instructor for details.</p>

## Agribusiness

<b>Semester One (.5 Credit)</b>	<b>1415H526011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H526012</b>
<b>Prerequisites</b>	<b>Botany, Zoology, and Natural Resources are recommended.</b>
<b>Course Description</b>	<p><b>Financial management is important to everyone in every career. This course is designed to bring the record keeping and financial management commonalities together to introduce new concepts designed to keep agribusiness current with today's financial practices.</b></p> <p><b>Students will learn the basis for making effective decisions, setting goals, assessing and solving problems, valuing financial progress and success, evaluating the management of resources, and gaining skills useful in everyday life.</b></p> <p><b>For this course selection, students should show interest in some aspects of Agriculture Education. Students will be held to high expectations regarding their quality of work and personal behavior. Students will work both in teams and individually throughout this course.</b></p> <p><b>Students will have the opportunity to participate as members in the New Lothrop FFA Chapter, which is part of a national student organization. The FFA is committed to develop students potential for premier leadership, personal growth, and career success through Agricultural Education. Students will have various opportunities to attend District, Regional, State and National contests, conferences, or conventions. Events outside of class are</b></p>

	<p>recommended for student development but are not required.</p> <p>*May earn CTE articulated college credit; see instructor for details.</p>
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### Social Science Courses

#### World History 7

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p>Seventh grade students will review the tools and mental constructs used by historians and geographers. They will develop an understanding of Ancient World History, Eras 1-3, of the Eastern Hemisphere and will study contemporary geography of the Eastern Hemisphere. Contemporary civics/government and economics content is integrated throughout the year. As a capstone, the students will conduct investigations about past and present global issues. Using significant content knowledge, research, and inquiry, they will analyze the issue and propose a plan for the future. As part of the inquiry, they compose civic, persuasive essays using reasoned argument.</p>

#### US History 8

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p>Eighth grade students continue their study of United States History from the writing of the Constitution through Reconstruction. Geographic, civics/government and economics content is integrated within the historical context. Using</p>

	<p>significant content knowledge, research, and inquiry, the students analyze an issue and propose a plan for civic action. They develop reasoned arguments and write a persuasive civic essay addressing issues from the past within a historical context. Where appropriate, they make comparisons to relevant contemporary issues.</p>
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**United States History and Geography**

<b>Semester One (.5 Credit)</b>	<b>1415H918011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H918012</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This course will cover the growth and development of the United States. Emphasis will be placed on The Revolutionary War, Constitutional period, the new American governments, Civil War and the 20th Century. The time covered will be from the Revolutionary War until the present.</p> <p>In this class, the students will identify causes for writing the United States Constitution and examine the early government of the United States. They will also study the development and territorial growth of the United States and examine the background of sectionalism.</p> <p>Students will explore the causes and effects of the Civil War on the development of America and examine the industrial development of our country. This course will cover the settlement of the United States and will examine how the U.S. began its involvement in foreign affairs.</p> <p>Students will study the cause and effect of major American wars including Vietnam and study the political development of the United States.</p>

	<b>Students will also identify important people who made contributions to this period of history.</b>
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### **World History and Geography**

<b>Semester One (.5 Credit)</b>	<b>1415H944031</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H944032</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p><b>This course will cover the major world events from causes of WWI to the present. Some emphasis will be placed on the development of Socialism, Fascism, and Communism.</b></p> <p><b>Students will develop skills in speaking and writing in an organized manner. They will also identify the causes and effects of World War I. They will also study the rise and fall of Imperial and Communist Russia. They will identify the political, economic, and military result of WWI.</b></p> <p><b>In this course, students will examine the teachings of Marx, Lenin, Hitler, and Mao-tse Tung. The students will also examine the rise of the United States from isolation to super power. We will also discuss the cause and effect of the Holocaust and use current events to examine problems in today's world caused by solutions to problems of an earlier day.</b></p> <p><b>This course will examine the causes and effects of Pre-WWI Imperialism, especially in Southeast Asia and the Middle East. We will also explore the rise of China as a major force in the world and study the rise, fall and rise of Japan. The students will also examine the causes and effects of the Cold War along with the rise of the European Community.</b></p>

## American Government

<b>Semester One (.5 Credit)</b>	<b>1415H935011</b>
<b>Prerequisites</b>	<b>US History &amp; World History</b>
<b>Course Description</b>	<b>The basic focus of this class is to analyze the fundamental, philosophical roots of the United States government and evaluate how the structure and function of the United States government embody the ideas reflected in the U.S. Constitution; including the roles and responsibilities of the three branches of government. Students will also examine the interaction of citizens and government and the responsibility we have as citizens to participate in government at many different levels. Discussions will also include the fundamental principles and ideals of domestic and foreign policy and the nature of our government's involvement. Students will also evaluate domestic and foreign policy positions in light of national interests and core democratic values.</b>



## Economics

<b>Semester One (.5 Credit)</b>	<b>1415H940022</b>
<b>Prerequisites</b>	<b>US History &amp; World History</b>
<b>Course Description</b>	<b>This course is designed to teach the basic economic concepts and behaviors that most businesses and individuals practice today, It is a survey course that introduces the students to the basic ideals of economics at both the micro- and macro-level. Students will examine the economic factor of scarcity and how it affects the choices individuals and businesses make in managing finances, use of goods, and the economic well being of society. Students will also analyze how governmental decisions such as taxation and spending influence and answer the three basic economic questions: what is produced, how it is produced, and who receives the benefit of production. Finally, students will evaluate how a free market system operates in the production, distribution, and consumption of goods.</b>

## Current Events

<b>Semester One (.5 Credit)</b>	<b>1415H070321</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H070322</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<b>The study of Current Events is both fun and important. In this class we will study and analyze recent and current issues that we see in our state, nation, and the world. We will use many types of</b>

	<p>media (periodicals, newspapers, television, and internet resources) to analyze political, social, and economic events that shape our lives. Students, along with the instructor, will provide important topics for analysis and discussion.</p>
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**Visual, Performing, or Applied Arts Courses**

**JH Art**

<b>9 weeks</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>● Develop a variety of artistic skills and create with a variety of artistic mediums.</li> <li>● Recognize the elements and principles of design in their own art as well as others.</li> <li>● Develop a knowledge, understanding and appreciation for various cultures' art.</li> <li>● Complete high quality projects in allotted time.</li> <li>● Foster flexible ways of thinking and problem solving alone and in groups.</li> <li>● Develop and refine artistic work for presentation.</li> <li>● Synthesize and relate knowledge and personal experiences to make art.</li> </ul>

**JH Computers**

<b>9 weeks</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This is a 9 week rotation class. Students will work hands on to develop a deeper knowledge of things such as but not limited to: Computer Software and its</p>

	uses, Keyboarding skill, Computer etiquette, Google Docs, New Lothrop's technology policy, The Cloud. Knowledge will be gained using 21 Things for Students as well as various Quests that students will complete
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### Art

<b>Semester One (.5 Credit)</b>	<b>1415H111117 (Art C-2016/2017)</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H111118 (Art D-2016/2017)</b>
<b>Prerequisites</b>	
<b>Course Description</b>	This class will be an exploration of a variety of art concepts, media, and techniques. For those students that are new to art you will start to learn about specific art processes. You will learn about the elements of design, principles of design, art styles and history as well as key artists. Students who have previously taken art will have higher expectations and will need to expand on previously learned processes.

### Art/AV Design

<b>Semester One (.5 Credit)</b>	<b>1415H011688</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H011688</b>
<b>Prerequisites</b>	
<b>Course Description</b>	The student will learn basic camera and production techniques such as camera shots/angles, movement, perspective, special effects, lighting and audio. He/she will plan and produce video projects individually and within groups, and perform various jobs required to create a video or film, including director, videographer, and editor. They will also write/draw storyboards using correct terminology for camera movements, shots, transitions, sounds and

	<p>graphics. In this class, we will also learn to use a variety of apps to plan, produce, and edit videos and movies. We will also use the arts to express and present ideas and feelings for a specific purpose. There will also be a final project using a variety of platforms (YouTube, Mock Rock, and the NL Art Show to name a few).</p>
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### Yearbook

<b>Semester One (.5 Credit)</b>	<b>YB141511</b>
<b>Semester Two (.5 Credit)</b>	<b>YB141511</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>In this course, students will gain skills in page design, advanced publishing techniques, copywriting, editing, and photography while producing a creative, innovative yearbook, which records school memories and events. There is an emphasis on journalism skills in this class. Participants gain useful, real world skills in time management, marketing, teamwork, and design principles.</p>

### Choir

<b>Semester One (.5 Credit)</b>	<b>1415H316011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H316012</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>There will be a variety of music studied and performed to encourage vocal and musical development. Students will demonstrate proficiency in musical elements of rhythm, pitch, harmony, melody, sight reading, and commonly used musical</p>

	<b>symbols. Attendance is required at ALL concerts and performances.</b>
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### **Band**

<b>Semester One (.5 Credit)</b>	<b>1415H322011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H322012</b>
<b>Prerequisites</b>	<b>8th Grade Band</b>
<b>Course Description</b>	<b>NLHS Band focuses on reading written music and recognizing symbols and expression marks. Students will demonstrate proficiency on a chosen instrument. The band will prepare for various concerts and additional performances throughout the year; attendance is required for all scheduled performances.</b>

### **Business, Management & Technology**

<b>Semester One (.5 Credit)</b>	<b>1415h111140</b>
<b>Semester Two (.5 Credit)</b>	<b>1415h111141</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<b>This course will introduce you to the world of business. The students will go beyond the basics and get a head start on mastering the most popular business software suite, Microsoft Office, while enhancing your consumer decision making skills,</b>

	<p>preparing you for future employment, and helping you to become a more effective citizen. You will be introduced to concepts, terminology, and practices that are associated with business operations at all levels. Additionally, critical thinking and communication skills are reinforced as students format, create, and proofread brochures, programs, newsletters, presentations, and other business documents.</p> <p>Topics covered include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>· The Economy and You</li> <li>· Influences on Business</li> <li>· Credit</li> <li>· Money Management</li> <li>· Risk Management</li> <li>· Buying Goods and Services</li> <li>· Financial and Technological Resources</li> <li>· Career Planning in a Global Economy</li> </ul> <p><b>*May earn CTE articulated college credit; see instructor for details.</b></p>
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**BMT II**

<b>Semester One (.5 Credit)</b>	<b>1415H111142</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H111143</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p><b>BMT II replicates all the functions of real businesses in both structure and practice. Under the guidance of a teacher-facilitator and business mentors, students create and manage their virtual business from product development, production and distribution to marketing, sales, human resources, accounting/finance and web design.</b></p> <p><b>*May earn CTE articulated college credit; see instructor for details.</b></p>

**Business, Management & Technology III**

<b>Semester One (.5 Credit)</b>	<b>1415h111140</b>
<b>Semester Two (.5 Credit)</b>	<b>1415h111141</b>
<b>Prerequisites</b>	<b>Business, Management &amp; Technology I</b>
<b>Course Description</b>	<b>BMT III is a learning experience consisting of a combination of school-based preparation and actual work experiences designed to enable students to acquire attitudes, skills, and knowledge for career and other roles in real work settings. This course is open to students who have completed (or are concurrently completing) all 12 segments through a BMT and/or VEI class. Successful completion of this course will earn each student 0.5 credits per semester.</b>

**Industrial Arts Technology**

<b>Semester One (.5 Credit)</b>	<b>1415H111113</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H111114</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<b>Industrial Arts Technology is that part of a total educational program which deals with the broad</b>

	<p><b>study of the tools, materials, equipments, processes, products, and occupations of industry.</b></p> <p><b>Industrial Arts Technology contributes to the education of youth by providing a realistic and practical shop or laboratory environment where students can practice and develop their creative abilities.</b></p> <p><b>Through Industrial Arts Technology, students will learn how industrial products are planned and constructed by completing projects or by taking part in activities in the various areas. They will also learn to use tools and machines and to represent their ideas with drawings, sketches, or technical illustrations.</b></p> <p><b>Students will construct required projects and also projects of their choice.</b></p> <p><b>*May earn CTE articulated college credit; see instructor for details.</b></p>
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### **Advanced Industrial Arts Technology**

<b>Semester One (.5 Credit)</b>	<b>1415H111115</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H111116</b>
<b>Prerequisites</b>	<b>Industrial Arts Technology</b>
<b>Course Description</b>	<p><b>A continuation of Industrial Technology with increased emphasis on more advanced projects, design, problem solving, and construction techniques. Students will learn about woodworking careers and industrial methods while constructing teacher assigned and student chosen projects.</b></p> <p><b>Each student will identify careers in the woodworking industry and the education and training required for each. Students will construct teacher assigned</b></p>



	<p>projects, prepare working drawings of projects and calculate cost of projects. Students will demonstrate safe and responsible use of the machine tools in the woodshop and will also construct projects of the student's choice.</p> <p><b>*May earn CTE articulated college credit; see instructor for details.</b></p>
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### Construction Trades

<b>Semester One (.5 Credit)</b>	
<b>Semester Two (.5 Credit)</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<p>This class is introductory in nature and will cover many facets of the construction industry. This class is available to all students. We will cover in detail many aspects of industry including the day to day business aspects of working in the field. Students will also have the opportunity to participate in work based learning activities and career exploration. Students who successfully complete the program will gain a certification given by Carpenters and Millwright Union that will allow them an automatic interview to the union apprenticeship school.</p>

**\*Also offering Electrical Skilled Trade Program via Greater Michigan Construction Academy. Please see link on Mrs. Czymbor's website under NLHS Course Guide: [www.newlothrop.k12.mi.us/counselor](http://www.newlothrop.k12.mi.us/counselor)**

### World Language Courses

#### Spanish I

<b>Semester One (.5 Credit)</b>	<b>1415H401041</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H401042</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<b>This course is designed to introduce students to the language and culture of Spain, Mexico and South America. Emphasis will be on learning the basics for communicating in all four language learning areas; listening, speaking, reading, and writing. Students will also explore cultural aspects of the Spanish-speaking world. The content of the class is based on ACTFL and the Michigan World Language Guidelines.</b>

#### Spanish II

<b>Semester One (.5 Credit)</b>	<b>1415H402011</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H402012</b>
<b>Prerequisites</b>	<b>Spanish I</b>

<b>Course Description</b>	<b>This course is designed to increase the student's ability to communicate in Spanish by further development of the four language skills; listening, speaking, reading, and writing. The focus of this level of Spanish is for the students to not only learn Spanish; but also to learn through Spanish as we study travel units written in Spanish dealing with Mexico, South America, and Spain. Material from Spanish I is also reviewed and reinforced. To help the student gain more confidence in speaking the language, there are many group activities in which the students interact with one another in the target language. The content of the class is based on ACTFL and the Michigan World Language Guidelines.</b>
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### Health and Physical Education

#### Health

<b>Semester One (.5 Credit)</b>	<b>1415H702011</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<b>This course is a general high school health class, which is designed to meet daily and future needs of the student. This course is one semester long. It is a required course for graduation in the state of Michigan. Topics such as wellness, alcohol, tobacco, illegal drugs, cardiovascular disease, body systems, cancer, communicable diseases and human sexuality will be covered. Reading, lecture, general discussion, debates, films, outside speakers, and research will all be used to cover the course material.</b>

#### JH Physical Education

<b>9 weeks</b>	
<b>Prerequisites</b>	
<b>Course Description</b>	<b>The Physical Educational Program is designed for development of the total person--physically, mentally,</b>

	<p>and socially. It is the purpose of physical education to teach students sports skills and sports interests that will become a permanent part of their adult life and enhance their fitness level.</p> <p>This course offers a wide range of physical activities that are used in creating proper physical fitness and that are recreation oriented.</p> <p>This course is designed to help reduce stress from daily routine and to enhance being physically active.</p>
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**Physical Education**

<b>Semester One (.5 Credit)</b>	<b>1415H799031</b>
<b>Semester Two (.5 Credit)</b>	<b>1415H799032</b>
<b>Prerequisites</b>	
<b>Course Description</b>	<p>The Physical Educational Program is designed for development of the total person--physically, mentally, and socially. It is the purpose of physical education to teach students sports skills and sports interests that will become a permanent part of their adult life and enhance their fitness level.</p> <p>This course offers a wide range of physical activities that are used in creating proper physical fitness and that are recreation oriented.</p> <p>This course is designed to help reduce stress from daily routine and to enhance being physically active.</p>

## **Dual Enrollment**

### **Dual Enrollment Courses**

<b>Course Description</b>	<p><b>Dual enrollment courses are college courses that allow students to earn both high school and college credit at the same time. NLHS hosts parent meetings to review options for students twice a year (fall and mid-winter).</b></p> <p><b>Suggestion: If interested in Fall Dual Enrollment, apply prior to Spring Break in the previous school year.</b></p> <p><b>Suggestion: If interesting in Winter/Spring Dual Enrollment, apply prior to Halloween.</b></p> <p><b>Most popular options at NLHS:</b></p> <ul style="list-style-type: none"><li><b>*Baker Countywide Programs-Health Science Academy, Criminal Justice, Computer Science &amp; Networking, and Automotive Services</b></li><li><b>*Delta College-online courses</b></li><li><b>*Mott-courses at the Northern Tier Center in Clio, MI</b></li><li><b>*5th Year Early College Program w/Baker College of Owosso (online &amp; on campus) AND Lansing Community College (blended courses-online &amp; meet in Corunna)</b></li><li><b>*Some of our CTE courses also earn college credit; see Mrs. Knieper, Mr. Long, and Mr. Wyrick for more information!</b></li></ul> <p><b>For more information, please visit the Dual Enrollment link on Mrs. Czymbor's website:</b> <a href="http://www.newlothrop.k12.mi.us/counselor">www.newlothrop.k12.mi.us/counselor</a></p>
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