

# Course Offerings L'Anse Area School

## ART

Art I  
Art II  
Yearbook

## BUSINESS

\*Computer Applications  
\*Business Applications  
Personal Finance  
AP Coding  
Networking  
Work Based Learning (seniors)

## ENGLISH

English I  
English II  
English III or College Prep English  
English IV or AP English  
Publications

## FOREIGN LANGUAGE

Spanish I  
Spanish II  
Ojibwa  
French I

## PHYSICAL EDUCATION

Boy's PE/Health  
Gym II  
Cardio and Weightlifting

## MUSIC

Band

## SOCIAL SCIENCE

U.S. History/Geography  
Civics/Economics  
World History/Geography  
Current Events (seniors)  
Psychology  
Peer Mentoring

## SCIENCE

Science 9  
Biology I  
Chemistry I  
Chemistry II  
Conceptual Physics  
AP Biology  
Anatomy/Psychology  
AP Environmental Science

## MATHEMATICS

Algebra I  
Geometry  
Algebra II  
Pre-Calculus  
Statistics  
Math Lab  
NMU Calculus I  
Algebra II A  
Algebra II B

## INDUSTRIAL ED.

Machine Woods/Advanced  
Metal Fabrication/Advanced

## CAREER & TECHNICAL

\*\*\* Automotive (Classes are taken in Hancock)  
Health Occupations I (Classes at LHS & Clinical site)  
\*\*Health Occupations II (Classes at LHS & Clinical site)  
\*\* Precision Machining  
\*\*Construction Trades  
Accounting I  
\*\*\* Marketing/Graphics (Finlandia)  
\*\*\* Computer Programing/Networking (MTU)  
\*\*\* Early Childhood (KBOCC)  
\*\*\* Culinary Arts (KBOCC)  
\*\*\* Welding/Manufacturing (Classes are taken in Hancock)

## NOTES

\*1/2 Credit – semester class  
\*\*2 Credit – double period class  
\*\*\*2 Credit – three period class  
All other classes are 1 credit

L'Anse Area Schools  
Statement of Assurance of Compliance with Federal Law

L'Anse Area Schools complies with applicable federal and state laws prohibiting discrimination, including Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973.

It is the policy of the L'Anse Area Schools that no person, on the basis of race, sex, color, religion, national origin or ancestry, age, height, weight, marital status or disability, shall be discriminated against in educational programs and activities or admissions.

Questions or concerns regarding Statement of Assurance of Compliance with Federal Law should be directed to Superintendent, L'Anse Area Schools, 201 N. Fourth Street, L'Anse, MI 49946-1499, (906) 524-6000

# **Course Descriptions L'Anse Area School**

## **ART CLASSES**

### **Art I**

This course introduces students to the Elements Of Art and Principles Of Design through the application of various art materials and methods. Art history will be incorporated into lessons and projects. Care of tools and procedures of operation will continually be taught through exposure and direction. Grading will be based on rubrics. Effort and art room conduct will be heavily weighted.

### **Art II**

This course is an intermediate/advanced course expanding upon the Elements Of Art and Principles Of Design. Students will focus more on their creative process and personal expression. Students will also develop a greater understanding of Art History, Art Criticism and Advanced Color and Design Theories. Techniques such as drawing, painting, printmaking and ceramics will be explored.

### **Yearbook**

This course is project-based with an emphasis on organization, cooperation, time management, and school involvement. Along with designing and creating the Jr. Sr. High School Yearbook according to a set timeline, students will be required to sell ads to local businesses, attend and photograph many school events, be a positive role-model within the school, be accepting and inviting to all students, and also fundraise. Students will learn aspects of digital design, editing, formatting, photography, and marketing. Due to the unique nature of this course, students must be willing to venture outside their social groups to include all students in the final Yearbook. This class is open to students in 10-12 grade who are willing to be actively involved in school events and functions and who are willing to actively promote school spirit and equality among their peers while meeting real life deadlines.

## **Career & Technical Classes (CTE)**

### **Available at Baraga Area Schools**

#### **Construction Trades**

This course is designed to prepare students for job entry in the construction field or advance work in a technical school. The Construction Trades program provides the students with knowledge and skills to build a house from the foundation to its completion. Students achieve a wide variety of hands-on experiences, all related to the multi-faceted construction industry.

## **Career & Technical Classes (CTE)**

### **Available at the Copper Country Intermediate School District**

## **Automotive Technology**

The goal of the Automotive Technology program at the Copper Country Career & Technical Education Center is to introduce and prepare students to explore or enter the automotive field. This program provides a “head to hands-on” approach that will lead to success in post-secondary training and into an expanding automotive-related field. Students involved in this program may range from technicians trainees to pre-engineering students. Some of the instructional areas to be covered are: braking systems, front-end alignment, suspension, on board computers, sensors, emissions, fuel injection, oscilloscope, engine analysis, and related support systems. The Automotive Technology program is nationally certified by NATEF (National Automotive Technicians Education Foundation) and is taught by an ASE (Automotive Service Excellence) certified instructor. Students will be given the opportunity to take state and national (ASE) certification tests.

- **Pre-requisite - Junior or Senior standing**

## **Career & Technical Classes (CTE)**

### **Available at the KBOCC**

## **Early Childhood**

Early childhood educators work in child care centers, preschools, and public schools with children through the age of eight. Students who complete this course will know how to attend to children’s basic needs for trust and understanding, and prepare curriculum that stimulates the children’s physical, emotional, intellectual and social growth.

## **Culinary Arts**

The Culinary Arts/ Hospitality Program is designed to be a two-year program that incorporates the National Restaurant Association’s ProStart curriculum. Students will explore potential career paths in the food service industry, with emphasis on technical skills, customer relations, restaurant organization and the ServSafe sanitation programs.

## **Career & Technical Classes (CTE)**

### **Available at Finlandia**

## **Marketing**

This course will take students through the dynamic world of marketing and merchandising. Real world marketing will be a part of every class using the internet, computer simulations, projects and guest speakers.

## **Career & Technical Classes (CTE)**

### **Available at L’Anse Area School**

## **Health Occupations I**

The Health Occupations I course introduces students to the health care system, medical terminology and professions in health care. Students learn about the various careers through student research and presentations, listening to a variety of guest lecturers and viewing video conferences with Northern Michigan University Health Science departments. Students learn the

basics of infection control, communication and legal and ethical responsibilities of the health care professional in preparation for the second semester career job shadow experience. The course helps students narrow down their health career choices for them to further explore one or two clinical experiences in the Health Occupations II course.

Students have the opportunity to join the Keweenaw Bay Chapter of the Health Occupation Students of America to further develop their leadership and technical skills.

## **Health Occupations II**

The Health Occupations II course provides students with the opportunity to further explore the many available career options in the health care profession and build on the knowledge they have gained in Health Occupations I. Students learn Health Care Provider CPR (Cardio-Pulmonary Resuscitation), emergency first aid, medical terminology, basic anatomy and physiology, and various skills necessary for success in the health care field. After completion of the core curriculum, including-but not limited to- communication skills, professionalism, infection control, legal and ethical issues in health care, confidentiality, and safety, students have an opportunity to experience hands-on training or job shadowing in local facilities with professionals in the careers they choose to explore. The course is a combination of theory, lab practicum (where students practice skills), and clinical instruction. Students who are involved in direct patient care will be under the guidance of their instructor. Students in the class who would like to pursue a career in nursing can complete the Certified Nursing Assistant requirements that are embedded in this course. The course included training for students to obtain the skills necessary to take the state of Michigan's competency evaluation exam to become a CNA. Upon successful completion of the exam, students will have their name placed on the state registry and will be eligible to work as a CNA in hospitals, nursing homes and with health care agencies. Students have the opportunity to join the Keweenaw Bay Chapter of the Health Occupation Students of America to further develop their leadership and technical skills.

## **PRECISION MACHINING**

### **Year 1**

This course is designed to provide students with a broad understanding of opportunities in the field of machining as well as basic machining operations. Supplemental components of the course will include blueprint reading, basic and finite measurement, machine and workplace maintenance, workplace safety, and career and employability skills. In addition, students will be introduced to the design process, computer aided design, and computerized numerical control (CNC) machining. Students will have a wide range of hands-on experience to assist them in making career choices in the ever-expanding machine tool industries.

### **Year 2**

Students successfully completing Year 1 will have the opportunity to be placed in a business/industry to further their education in Precision Machining. Students will be selected through an interview process as well as grades, attendance, and instructor recommendation to continue training onsite at a local manufacturer.

## **BUSINESS CLASSES**

### **Computer Applications**

This is a one-semester *required* course for all ninth grade students, which provides an opportunity for students to broaden usable and practical skills at the computer as well as expand many auxiliary skills (abilities), which will contribute to the development of a well-rounded education. Students' progress into intermediate and advanced skills in word processing, database, spreadsheet, desktop publishing, and time management applications. We utilize the Microsoft programs (Word, Excel, Access, Publisher, and PowerPoint). Students will also be exposed to technological and internet-related topics that impact them as users of the cyber world.

### **Business Applications**

This is a one-semester graduation requirement course for all 9<sup>th</sup> grade students. It provides an opportunity for students to develop usable and practical job search skills. Students will research and explore career opportunities in the Business Computer Lab using the "CAREERCRUISING.COM" website. Job search activities will include the creation of a Resume and Letter of Application. Interviewing techniques will also be presented. Students will complete the job search by researching on-line job search websites. In addition, students will develop strategies for: decision making, communicating effectively, adjusting to the world of work, advancing their career, balancing career and personal life.

### **Personal Finance**

Offered to students in grades 10-12. Personal Finance is a one-class period, hands-on computer oriented class. Students will learn how to plan and manage their personal finances and achieve a financially successful life. The class will focus on the student's role as a citizen, student, family member, consumer, and active participant in the business world. The class provides opportunities for self-awareness, expression, and satisfaction in a highly technical and competitive society. Students will discover new ways to maximize earning potential, develop strategies for managing resources, explore skills for the wise use of credit, and gain insight into the different ways of investing money. Students will learn about the consequences of mismanaged finances such as bankruptcy. Topics covered: Basic life planning, money basics, career paths, taxes and payroll deductions, banking, budgets, spending decisions, investing in the future, insurance, retirement planning, automobile and home purchases.

### **Accounting**

Offered to students in grades 10-12. This course provides an exposure to an accounting CAREER, the terminology of bookkeeping and accounting, how to start an accounting system, transaction analysis, describes the accounting cycle, common accounting practices, provides for microcomputer applications, applies to service, merchandising, partnership, and corporate functions and involves the complete accounting cycle.

## **Networking**

Offered to Students in Grades 9-12. This class will provide students an opportunity to work independently under the supervision of the Business Teacher and network administrator on tasks vital to the operation of the L'Anse Area Schools Network. Students will be required to work on various technology projects for the L'Anse Area Schools. Projects include troubleshooting hardware and software, equipment and license inventory, staff and student technology training. Students will assist in PowerPoint projector and distant learning equipment setup. Students must be willing to take charge or follow the direction of others in a variety of circumstances. In addition to the network responsibilities, students will work collaboratively with administration, teachers, and staff.

## **ENGLISH**

### **English I**

Students will develop vocabulary, grammar, writing, and reading comprehension skills to provide a strong foundation for study at the high school level. Students will build vocabulary knowledge and word recognition. Grammar instruction will focus on sentence construction, punctuation, easily confused words, and editing/proofreading skills to enable students to write well-constructed and grammatically acceptable compositions in a variety of formats. The objective of writing assignments will be to increase writing fluency/clarity and provide practice in a range of formats such as essay tests, personal narratives, research papers, journals, and poetry. Reading comprehension will be based on fiction and non-fiction selections that will build a foundation of knowledge that will help students in college and everyday life. Curriculum will include, a nonfiction novel (*Tuesdays with Morrie*), an epic poem (*The Odyssey*) and a Shakespearean drama (*Romeo & Juliet*).

### **English II**

English II is a very influential class that will create a well-rounded picture of classic pieces of literature specifically written in our very own nation. The American literature journey begins by dating back to the 1600s and developing an understanding of how reading and writing and culture began to emerge in our country. We then continue to dive into novels, both contemporary and historical with authors such as Edgar Allan Poe, John Steinbeck and Arthur Miller as just some leading examples. The American Literature series ends with a more contemporary feel, leading us into authors that we know and continue to love today. Students find themselves responding, exploring and writing to essential and overall thematic questions along with writing on research based material. Along with the overview of reading, students are engaged in vocabulary development and grammar based lessons to better language usage.

### **English III**

English III stems off of American Literature (English II) but is a little more complacent in it's focus. Students begin learning about the art of persuasion, public speaking and read a plethora of novels that deal with everyday occurrences in real life scenarios. English III works with the writing process and students analyze and write out structural essays that include research based

material. English III also heavily prepares our students to take the SAT test in the spring and work to understand what is to be expected on the test itself.

### **College Prep English III**

College Preparatory English is a more rigorous and structural class. The students that take this class have more independent reading to do on their own while coming to class having already read for the next day. Because a college class is based on preparation, much of this class is discussion based and helps students become engaged with one another and learning to deal with other's opinions and critiques. Students read a multitude of novel sets, and are followed with formal essays and several essays consisting of analyzing several means of literature. Students also prepare heavily for the SAT test and endure many lessons and practices that include examples based off of the test itself. Students who take this class must be motivated and willing to come to class prepared prior to the next lesson.

### **English IV**

Students will become familiar with prominent British/European authors to provide a good base of cultural literacy. The classic literature that they study will explore the connection between literature and history. The selections will begin with the Anglo-Saxon Period and continue through to contemporary selections. Students will also write a variety of essays and a research paper to prepare them for college writing.

#### Possible British/World Literature Selections:

- Beowulf
- King Arthur Legends
- I Am Mordred
- The Canterbury Tales
- Hamlet
- Brave New World
- The Kite Runner
- The Road

Essay Writing- Students will write several different types of essays to prepare for college: descriptive, expository, compare/contrast, persuasive, narrative, literary analysis, and others.

Vocabulary/Grammar- Students will continue their vocabulary development with weekly lessons. Grammar study will continue in the form of mini-lessons and focus on punctuation and strengthening sentences.

### **AP English IV**

The AP English Literature and Composition course is designed with the goal of enhancing students' abilities to explore, comprehend, interpret, evaluate, and appreciate complex literary texts. Upon completion of this course a student should be proficient in discussing literature of varied themes, historical contexts, and genres whether it be in an on-demand, timed writing prompt; an in-depth, scrutinized, and revised essay; or in class discussion.

Students entering this course should expect that they will read, contemplate, and write about literature extensively. Students should expect to write an essay every few weeks and read every day (novels, drama, short stories, and poems). Students must be willing to challenge and justify their understandings, attempt to see other perspectives, and discuss in a mature and lively manner.

Due to the rigorous nature of the AP course (which is a college-level course) and to help students prepare for the breadth and depth of reading they will encounter throughout the year, students must complete a summer reading assignment. Before students enter the course in the fall they must read the novel *The Kite Runner* by **Khaled Hosseini**. Students can expect to take a test and/or in-class essay on the novel during the first week of school.

Possible reading selections include:

- Heart of Darkness, Joseph Conrad
- Wuthering Heights, Emily Bronte
- Hamlet, William Shakespeare
- Brave New World, Aldous Huxley
- The Road, Cormac McCarthy
- Contemporary novel (written after 1960) of student's choice
- Various poetry and short fiction

## **Publications and Creative Writing**

Publications and Creative Writing are two classes mixed into one. Much of the work that is involved deals with the concepts of journalism and public writing. In the beginning of the year, students are introduced to the definition of journalism and what it all entails. From there, students begin working with public writing and create multitudes of public writing such as the monthly newspaper that gets distributed throughout the school. Other public works may include a monthly newsletter that goes out to the public, upkeep on the Commons area television slideshow with information, positive reinforcement posters and so forth. Within the second half of the semester, students are exposed to different themed writing assignments that help with their creative side of things. Students may write narratives or informational stories that engage the mind. Publications class also deals with the art of poster making and making news known throughout the school.

## **FOREIGN LANGUAGE/ WORLD LANGUAGES**

### **Spanish I**

This course consists of an introduction to Spanish conversation, vocabulary and grammar. Students will be expected to be able to speak, write and translate basic Spanish by the end of the year.

### **Spanish II**

This course is a continuation of Spanish I, and emphasizes more complex grammar structures in Spanish. Students will continue to read, write, and speak Spanish on a more advanced level. Culture will also be emphasized through video and discussion.

- Prerequisite - A grade of "C" or better in Spanish I, or written approval of the instructor.

## **French I**

This course consists of an introduction to French conversation, vocabulary, grammar and culture. Students will be expected to be able to speak, write and translate basic French by the end of the year.

## **French II**

This course is a continuation of French I and emphasizes more complex grammar structures in French. Students will continue to read, write, and speak French on a more advanced level. Culture will also be emphasized.

- Prerequisite - A grade of "C" or better in French I, or written approval of the instructor.

## **MATHEMATICS**

### **Algebra I**

- Prerequisites: Successful completion of 8<sup>th</sup> grade math.

This course will provide a study of real number systems using a function based approach. Students will study problem solving techniques, work with variables, function patterns and graphs, solve equations and inequalities, solve systems of equations and inequalities, perform operations with and factor polynomials, solve and graph quadratic equations, perform operations with and graph both radical and rational functions.

### **Geometry**

- Prerequisites: Algebra I

This course will provide a study of: inductive and deductive reasoning, formal proofs, properties of parallel and perpendicular lines, triangle congruence, proving relationships within triangles, quadrilaterals, similarity, right triangles and trigonometry, transformations, area, surface area, volume, and circles.

### **Algebra II**

- Prerequisites: Algebra I and Geometry

Algebra II is a full-year course that will expand on the concepts learned in Algebra I and will include the following topics: linear systems, matrices, quadratic functions, polynomial functions, radical functions, exponential and logarithmic functions, rational functions, conic sections, probability, and sequences and series. Graphing calculators such as the TI-84 are extensively used.

### **Algebra IIA**

- Prerequisites: Algebra I and Geometry

Algebra IIA is the first course of Algebra II covered over two years. It covers the first half of the Algebra II book, chapters 1 through 7. Topics include properties of real numbers, linear systems, matrices, and the following functions: quadratic, polynomial, and radical. A scientific calculator is required; a graphing calculator is recommended.

## **Algebra IIB**

- Prerequisites: Algebra I, Geometry, and Algebra IIA

Algebra IIB is the second course of Algebra II covered over two years. It covers the second half of Algebra II, chapters 8 through 14. Topics include exponential, logarithmic, and rational functions; conic sections; sequences and series; probability and statistics; trigonometric functions, identities, and equations. A scientific calculator is required; a graphing calculator is recommended.

## **Precalculus**

- Prerequisites: Algebra 1, Geometry, and Algebra 2

Precalculus is a full-year course designed to strengthen previously learned algebraic and geometric concepts while expanding into the Precalculus concepts of functions and trigonometry. The study of functions is emphasized, including the identity, squaring, cubing, absolute value, reciprocal, square root, exponential, logistic, natural logarithmic, greatest integer, sine and cosine functions. Probability and statistics are also covered. A graphing calculator such as the TI-84 is required.

## **NMU Calculus I**

- Prerequisites: Algebra I, Geometry, Algebra II, and Precalculus

With the coordination between L'Anse Area Schools and Northern Michigan University's Northern Promise, we are offering NMU Calculus I. This full-year 4 credit course is taken concurrently as a high school and university course. NMU Calculus studies the mathematics of motion and change that is widely used in science and engineering. Topics covered include the rate of change of a function, derivatives and their applications, integration and its applications, transcendental functions, and methods of integration. A graphing calculator like the TI-84 will be used extensively throughout the course and is strongly recommended.

## **Math Lab**

This course is designed to assist students with the concepts/skills necessary to succeed in Algebra I/Geometry. Students will work through problems assigned by both their Algebra I/Geometry teacher and those assigned by their math lab instructor.

## **Statistics**

This course will cover a range of statistical methods along with sampling methods and bias in statistics. Specific topics include but are not limited to: frequency distributions, weighted means, standard deviation, graphs and statistical presentations, probability (multiplication rules and Addition Rules, etc.), probability distributions, then normal distribution (z scores), correlation coefficient and chi square tests.

## **MUSIC**

### **Symphony Band**

- Prerequisites - Two years of Junior Band, or permission of the instructor

Symphony Band, a continuation of the Junior Band program, provides an opportunity for advanced group instruction on all major wind and percussion instruments. The emphasis of instruction focuses on individual and group performance. The Senior Band functions as a marching band for selected parades and athletic contests, a concert band for performance of music of a more serious nature, and a pep band to provide entertainment and promote school spirit at various athletic events. The many rehearsal and performance opportunities presented throughout the year are very valuable and important educational experiences; not an end in themselves or an added "frill", but a means toward meaningful and desirable qualities of character and life skills. Some of these qualities and skills are: skill to use and evaluate knowledge; desire for knowledge and continuing education; proper development of peer relationships; democratic principles and loyalty; development of moral and ethical responsibility; development of pride in achievements, of self-understanding, and positive self-worth; development of creative self-expression; and the ability to use leisure time productively and wisely.

## **PHYSICAL EDUCATION**

### **Gym I**

This Physical education class will emphasize both team and individual (life) sports. Students will learn historical information about and the rules and fundamentals that will help them appreciate participating in each sport. Students will also learn about fitness and different techniques to help achieve a healthy lifestyle after graduation.

### **Health 9**

High school health is a one semester state required course. Course curriculum is aligned with national and state standards. Students will acquire knowledge and skills that can be transferred to developing health literacy and positive personal health behaviors. The course of study will have students develop ways to improve in all areas of their health while examining the subjects of alcohol, tobacco, and other drugs use, violence prevention, suicide & depression, nutrition, disease prevention and screening including HIV/AIDS/STIs. Students will also develop their community advocacy by completing the American Heart Association Adult/Child CPR and First Aid course.

### **Gym II**

The main goal for our physical education courses is to cover motor skills, physical fitness, cognitive concepts, and personal and social character traits. Our weight lifting class will deal with maintaining cardio respiratory endurance by assessing personal status of endurance. We will also try to make one of our goals to develop and maintain healthy levels of muscular strength and endurance. In order to achieve this goal we will assess personal status of muscular strength and endurance of the arms, shoulders, abdomen, back, and legs monthly. Our class will also develop and maintain healthy levels of flexibility of selected joints of the body and also try

to maintain healthy levels of body composition by assessing monthly. Lastly, all students will value physical activity and its contribution to lifelong health and well-being.

### **Cardio and Weight Training**

This class will be designed to improve each student's overall fitness level. Each student will set up specific goals they want to achieve. We will be using weights, circuit training DVD's, and some other equipment the school has to offer to achieve the goals desired. Some other topics that will be discussed are nutrition, healthy BMI's, proper lifting techniques, heart rate monitor usage, importance of stretching, etc.

## **SCIENCE**

### **Environmental Earth Science**

Environmental Earth Science is the study of the Earth and its relationship to the universe. The students will study Earth's processes, changes of the interior and surface, and the forces that cause these changes with an emphasis on how they relate to and impact humans and how humans influence the Earth systems. Environmental Earth Science also examines the interaction between Earth's weather and climate, and the changes of organisms through time (paleontology). Finally, students will study astronomy, the study of our solar system, galaxies and universe. Earth Science is required for all ninth grade students and fulfills State of Michigan high school course requirements.

### **Biology**

- Prerequisite – completion of 9<sup>th</sup> grade science

General Biology is an introductory biology course. It is intended to prepare students for advanced high school biology or for college biological science courses. Course content consists of cell biology, genetics, evolution, and an intro to human systems. Emphasis is placed on synthesis of information and graphical interpretation of data.

### **Conceptual Physics**

This is a typically junior level science class that will build a strong conceptual understanding of physics. The course will incorporate hands on lab activities, critical thinking and problem solving. Topics to be covered include mechanics, gravitation, Newton's laws, properties of matter, heat transfer, sound, light, electricity and magnetism. This class will satisfy one of the Michigan Merit Curriculum science credit requirements for the class of 2011 and beyond.

### **Chemistry**

- Prerequisite Algebra 1

Chemistry I is a general chemistry course that includes the classification and study of the composition of matter. Topics covered include the principles of chemical reactions, energy, periodic table trends, kinetic molecular theory, types of bonding, nomenclature, and stoichiometry. Laboratory work will accompany each chapter.

## **Chemistry II**

- Prerequisite - Satisfactory completion of Chemistry I

Chemistry II is an advanced chemistry course in which the major areas of study include: the scientific method, energy transfer, properties and changes of matter, understanding trends in the periodic table, classification of matter, heat and temperature, significant figures, stoichiometry, atomic theory, quantum numbers and atomic orbitals, electron configurations, chemical bonding, nomenclature, writing chemical equations for reactions, properties of common gasses, kinetic theory of matter, gas laws, phase diagrams, solutions, colligative properties, ions in aqueous solutions, acids and bases. There are extensive laboratory experiments in this class and students will learn to write lab reports in a manner similar to what is expected in a college chemistry class.

## **Anatomy and Physiology (Offered in alternating years with Advanced Biology)**

- Prerequisite: A grade of "B" or better in General Biology or the recommendation of the General Biology instructor.

Anatomy and Physiology is designed as an introductory course in anatomy and physiology and assumes no prior knowledge of the human body by the student. It is geared to students preparing for careers in health related professions, such as nursing and occupational therapy, physical therapy, medical technology, medicine, and dentistry. Because of its' scope, the course is also useful for students in the biological sciences, science technology, science education, and physical education programs.

## **AP Biology (Offered in alternating years with Anatomy)**

- Prerequisite- Minimum cumulative GPA of a 3.5

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. Some AP students, as college freshmen, are permitted to undertake upper-level courses in biology or to register for courses for which biology is a prerequisite.

The AP Biology course is designed to be taken by students after successful completion of a first course in high school biology and one in high school chemistry.

The AP Biology Development Committee conducts college curriculum surveys of introductory biology courses for biology majors and develops the AP Biology Examination so that it is representative of the topics covered by the survey group. Accordingly, goals have been set for percentage coverage of three general areas:

I. Molecules and Cells, 25%, II. Heredity and Evolution, 25% III. Organisms and Populations, 50%.

## **AP Environmental Science**

- Prerequisites: Biology grade of B or better, Chemistry, Algebra

The goal of this course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. The AP Environmental Science course is an excellent option for any interested

student who has completed 2 years of a high school laboratory science. This course is usually taken in the junior or senior year.

## **SOCIAL STUDIES**

### **United States History/Geography (1890 – Present)**

This course will cover major events which shaped our nation from the period of the Civil War to the present. It will concentrate on how those major events affected our political and economic systems and, how geography still plays a major role in decisions made. It will also detail how divergent cultures came together to become what America is today.

### **Civics/Economics**

Civics is designed to provide students with a complete understanding of the American political system. Students will learn the functions and organization of our government and the individual's role in this democratic system. Students will become familiar with the core democratic values, checks and balances, freedoms guaranteed by the Bill of Rights and other Amendments to our Constitution, and the process of how men and women are chosen to represent people in the government.

Economics allows students to gain an understanding of the forces that shape America's economic system and the other economic systems around the world. Students will gain knowledge about the functions of the market economy and the role of the individual in it. They will also focus on economic concepts such as supply and demand, opportunity cost, scarcity and personal finance management.

### **World History/Geography**

World History is a required course for all juniors. The course is designed to investigate the development of the world's civilizations by studying their political and economical systems as well as their social, cultural, and religious contributions to history. Through this course the students will gain insight into past events and see how those events have led to current world situations. Units of study will include:

- “Five themes of Geography” which help to illustrate the link between history and geography: Location, Place, Human/Environment Interaction, Movement, and Region are covered.
- “Rise of Civilizations” will explore the “appearance” of early humans.
- “Flower of Civilizations” will focus on Ancient Greece and Ancient Rome.
- “Regional Civilizations” will take the students from the Byzantine Empire up to the Americas.
- “Emergence of the Modern World” will include the Renaissance and Reformation and their impact on civilizations.
- “Revolution” will look at how new technology led to the scientific revolution.
- “Rise of Industry and Nationalism” will begin with the Industrial Revolution, how political and social reform led to the rise of Nationalism and the development of great empires in Europe.
- “World in Conflict” will start with World War One and how the Treaty of Versailles ended the war and in effect caused World War Two.

## **Current Events**

This course covers the major events going on in the United States and the world. It will concentrate on why events take place and their possible results. The course will tie in these events and use history, government, and economics to explain the reasons for these events.

## **Social Psychology**

This Psychology course will serve as an introduction into the field of psychology. It will provide basic knowledge on the various fields of psychology, methods of research, the anatomy of the brain and the functions of each region of it. This psychology course will encompass the how and why of learning and how it changes with each stage of human development. Students will also be exposed to various mental illnesses and how they are treated. In addition to individual behaviors, students will also study how people interact in their everyday lives and under specific circumstances. Topics will range from the differences in cultures to predicting human behavior in certain social situations.

## **INDUSTRIAL EDUCATION**

### **Machine Woods**

The most important aspect of our woodshop class is to have the students achieve comfort with all the tools available to them in the building. In order to achieve this goal we will go through parts of our “Wood: Technology and Processes” book starting with general shop safety, then machine safety, and lastly, we will get hands on experience. Next, the students will either design their own project or work on a project assigned to them. Making the students comfortable in the shop should lead to them enjoying and wanting to come to class daily.

### **Advanced Woods**

- Prerequisite - Successful completion of Machine Woods.

This course is designed to give students who performed well in machine woods and want to develop their skills to a higher level an opportunity to do so. The projects that are made by the students are expected to be more difficult and the finished product should show the advanced level of skill of the student. The class is primarily a lab situation and minimal classroom instruction is necessary.

### **Metal Fabrication**

This course is an introductory course in the welding, machining, and metal fabrication area. We also review most of the manufacturing processes in the metal industry. The course includes hands-on operation in the welding area as well as in the bench metal area.

Required projects include:

Welding:

- Buildup pad in flat position
- Welding joints in the flat position

Machining

- Meat tenderizer

Fabrication

- Ice skimmer

## **Advanced Metals**

Prerequisites- Metal Fabrication

This class is split between the two different semesters. The first semester is primarily welding. Time is spent studying the welding process and performing welds in all positions. Second semester is a project based class. Second semester includes project design and processes.