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Prerequisites: None

The class focuses on Web page planning, basic design, layout and construction, and setup and maintenance of a Web site. HTML/XHTML, Cascading Style Sheets, Dreamweaver, Flash, Photoshop, Illustrator, MySQL and various other Web page and image creation tools are taught in the course. The course may be taught on Macs or PCs, but all skills are transferable from one format to another.

Course: **Computer Internship** Grade level: 11, 12 Credits: 5

Prerequisites: Strong computer skills and invitation from the department and Principal's approval.

This class is designed to help train the future computer professional in skills required of network managers.

Students will receive hands-on experience in setting up and maintaining a network of roughly 200 computers. This course will run as an internship; students must be exceptionally self-motivated and willing to learn.

Note: Enrollment in this course is extremely limited.

## Science Department

Course: **Biology 1** Grade level: 9 Credits: 5

Prerequisites: None

This course is designed to present the study of biology from simple to complex levels of organization. Basic chemistry, cell biology, and genetics precede information about organisms, population communities, and ecosystems. Students learn to use the scientific method when investigating topics. Laboratory experiences enhance classroom learning.

Course: **Biology 1 Honors** Grade level: 9 Credits: 5

Prerequisites: 90<sup>th</sup> percentile or above on the Coop Exam in math and no grade lower than B (85%) in 7<sup>th</sup> and 8<sup>th</sup> grade math and science

This course is designed to present the study of biology from simple to complex levels of organization. A study of basic chemistry, cell biology, and genetics give students a good base before they learn about simple and complex organisms, including human biology, anatomy and physiology, botany, marine biology, population communities, and ecosystems. Students learn to use the scientific method while investigating topics. Laboratory experiences enhance classroom learning. Topics are discussed in more detail than in the college prep biology course, and an emphasis is placed on critical thinking. Laboratory experiences enhance classroom learning. Students in the honors class are also responsible for research projects.

Course: **Chemistry** Grade level: 10, 11, 12 Credits: 5

Prerequisites: 80% in Biology and 80% in Algebra 1 or Departmental Approval

This course involves the study of chemical principles from the basic structure of matter to chemical formulas, energy equilibrium, solution, bonding, types of reactions, stoichiometry, nuclear chemistry and how they relate to everyday life.

Course: **Chemistry Honors** Grade level: 10, 11, 12 Credits: 5

Prerequisites: 90% in Biology and 90% in Algebra 1 (or 85% in Algebra 1 Honors)

Students use their knowledge of scientific methodology and literacy to derive basic chemical principles in the same way that a scientist would. There is a heavy emphasis on the mathematical treatment from the basic structure of atoms to chemical formulas, bonding, types of reactions, solubility, stoichiometry, energy, equilibrium and nuclear chemistry.

Course: **Consumer Chemistry**

Grade level: 10, 11, 12

Credits: 5

Prerequisites: Biology

This course examines the composition of various substances and the changes they go through. Students learn how chemistry touches their lives almost everywhere and everyday, in medicine, the clothes they wear, and the industries that make the things they use. Students will study the periodic table, simple compounds, and the basics of chemistry.

Note: Although this is a college preparatory lab science course, it does not include all of the components of a full chemistry class. Students who have or are taking Chemistry or Chemistry H may not take this course.

Course: **Physics**

Grade level: 11, 12

Credits: 5

Prerequisites: 80% in Chemistry and 80% in Algebra 1 or Departmental Approval

This course provides the student with an understanding of the physical laws fundamental to all science. Through lecture, laboratory experience and problem-solving, students gain a background in areas of mechanics, electricity and magnetism, wave theory, and optics.

Course: **Physics Honors**

Grade level: 11, 12

Credits: 5

Prerequisites: 85% Chemistry Honors (90% Chemistry) and 85% Algebra2/Trigonometry Honors. (Algebra 2/Trigonometry Honors may be taken concurrently) or Departmental Approval

This course is designed to provide the student with a strong background in physics. The essential concepts, which are consistently applied throughout the course, are developed by means of lecture, laboratory experience, and problem-solving. Topics include mechanics, electricity, magnetism, wave theory, and optics.

Course: **Earth Science**

Grade level: 10, 11, 12

Credits: 5

Prerequisites: Biology

This course provides the student with the basics of geology, astronomy, oceanography, and meteorology. Topics include models of the earth, minerals and rocks, plate tectonics, earthquakes and volcanoes, energy resources, erosion, stars and galaxies, the solar system, properties of ocean water, ocean floor, ocean currents, composition and structure of the atmosphere, weather and climate.

Note: This course combines the previously offered Oceanography/Meteorology and Geology/Astronomy courses. Students who have had one or both of the course may not sign up for Earth Science.

Course: **Marine Science**

Grade level: 10, 11, 12

Credits: 5

Prerequisite: Biology

Of all of the biological frontiers emerging in modern science none are as vast, unexplored, diverse, or relied upon by man kind as marine science. Our marine environment provides a nearly unlimited spectrum of professions, all of which have a strong dependence on marine science. The marine science course will be divided into oceanography (the study of the nonliving components of ocean) and marine biology, emphasizing the complexities of marine environments, Pelagic ecosystems and trends that remain steadfast throughout pelagic ecosystems, human impact on marine environments, and human dependence on marine environments.

Course: **Biology 2**

Grade level: 11, 12

Credits: 5

Prerequisites: 80% in Biology and 80% in Chemistry or 85% in Consumer Chemistry

This course builds on the foundations laid in Biology 1 and Chemistry. Emphasis is placed on the biochemical reactions of respiration, photosynthesis, and biosynthesis. Also included are the properties and constituents of enzyme systems, the flow of energy through the world of life, the metabolic adaptations by which living systems obtain and use energy, the life processes in plants and animals, and genetics. Laboratory experiences and enhanced student learning.

Course: **Environmental Science** Grade level: 12 Credits: 5

Prerequisites: 77% average in all previous science courses or Departmental Approval

This course covers the interaction between humankind and the environment in a framework of ecological principles, and focuses on students as decision-makers. Emphasis is given to the economic, social, political, ethical, and legal aspects of our environmental problems.

Course: **Advanced Placement Biology** Grade level: 11, 12 Credits: 5

Prerequisites: 90% in Biology Honors or 95% in Biology **and** 90% in Chemistry Honors or 95% in Chemistry.

AP Biology includes those topics regularly covered in a college biology course for biology majors. It aims at developing a conceptual framework for modern biology and an appreciation of science as a process. The three major areas covered in AP Biology are molecules and cells, heredity and evolution, and organisms and populations. *Students registering for this course will be required to sign a statement indicating that they understand the difficulty level and amount of work required for this course. Students will be expected to complete summer assignments prior to taking the course. Students are required to take the AP Examination. There is a fee for this test.*

**Note:** Morris Catholic is authorized to use the AP designation with this course on transcripts for the 2009/2010 school year. Information concerning reauthorization for the 2010/2011 school year is not available at the time of printing this guide.

Course: **Advanced Placement Physics** Grade level: 12 Credits: 5

Prerequisites: 90% in Physics Honors or 95% in Physics and departmental approval

This course provides a systematic introduction to the main principles of physics included in both classical and modern physics. It aims at developing the students' abilities to read, understand, and interpret physical information; verbal mathematical, and graphical; describe and explain the sequence of steps in the analysis of a particular physical phenomenon or problem; and perform experiments and interpret the results of observation, including making an assessment of experimental uncertainties. *Students registering for this course will be required to sign a statement indicating that they understand the difficulty level and amount of work required for this course. Students will be expected to complete summer assignments prior to taking the course. Students are required to take the AP Examination. There is a fee for this test.*

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## Social Studies Department

Course: **World History and Culture** Grade level: 9 Credits: 5

Prerequisites: None

This course outlines the foundations and the historic development of world history. Periods from the ancient world to the Reformation are covered. The course includes written, oral and group presentations.

Course: **World History and Culture Honors** Grade level: 9 Credits: 5

Prerequisites: A score of 90<sup>th</sup> percentile or above in Reading on the Coop Exam and no grade lower than A in 7<sup>th</sup> and 8<sup>th</sup> grade social studies.

This course outlines the foundations and the historic development of world history. Periods from the ancient world to the Age of Napoleon are covered. The course is faster paced and includes supplemental readings, written, oral, and group presentations, and a greater emphasis on Western Europe.

Course: **U.S. History 1** Grade level: 10 Credits: 5

Prerequisites: World History

Part 1 of U.S. History begins with a review of the life of Native Americans before Columbus, the coming of early explorers and the Spanish empire in the New World. The course then moves on to the defeat of the Spanish Armada and the expansion of England with the settlement of Jamestown in 1607. The course ends with Reconstruction after the Civil War.

Course: **U.S. History 1 Honors** Grade level: 10 Credits: 5

Prerequisites: World History Honors (85% or above) or World History (90% or above)

U.S. History 1 Honors covers basically the same material as U.S. History 1; the difference in the two classes lies in the approach and depth. The U.S. History Honors course also involves supplemental reading and project assignments with more individual responsibility for academic growth. Students will be introduced to reading, writing, and critical thinking skills they will need to take AP US History.

Course: **U. S. History 2** Grade level: 11, 12 Credits: 5

Prerequisites: U.S. History 1

After a retrospective look at the development of big business and imperialism in the late 1800's, students study foreign policy, domestic issues and the culture of American life in the 1900's, World War I, the Depression, World War II, Cold War, Vietnam War, and the end of the Cold War.

Course: **U. S. History 2 Honors** Grade level: 11, 12 Credits: 5

Prerequisites: U.S. History 1 Honors (final grade of 85% or above) or U.S. History 1 (final grade of 90% or above),

U.S. History 2 Honors covers basically the same material as U.S. History 2; the difference in the two classes lies in the approach and depth. The U.S. History Honors course also involves supplemental reading and project assignments with more individual responsibility for academic growth.

Course: **Advanced Placement U.S. History** Grade level: 11, 12 Credits: 5

Prerequisites: US History 1 Honors (final grade of 92 or above)

AP US History begins with the Post Civil War Reconstruction Period and ends with the study of foreign policy and domestic issues of the last half of the twentieth century. Students will be required to rely on knowledge from US History 1 Honors as they prepare for the AP exam. Because of the demanding nature of the work, this course will involve supplemental reading and writing essays to prepare the student to take the U.S. History AP Examination.

*Students registering for this course will be required to sign a statement indicating that they understand the difficulty level and amount of work required for this course. Students will be expected to complete summer assignments prior to taking the course. Students are required to take the AP Examination. There is a fee for this test.*

**Note:** Morris Catholic is authorized to use the AP designation with this course on transcripts for the 2009/2010 school year. Information concerning reauthorization for the 2010/2011 school year is not available at the time of printing this guide.

Course: **Contemporary World Issues** Grade level: 11, 12 Credits: 5

Prerequisites: U.S. History 1 and 2 (US History 2 may be taken concurrently with Contemporary World Issues)

Formerly titled Contemporary World Affairs, this course focuses on present events in our nation and world, helps students understand the connections between recent news events and issues, and gives them an appreciation for the interconnectedness of the world's regions and peoples.

Course: **The History of American Film**

Grade level: 11, 12

Credits: 5

Prerequisites: None.

This course introduces the student to the scholarly study of American film. Students examine films from the origins of the art form in the silent age of over a century ago through the present digital age. Students will study basic film grammar (such as close-ups, editing, and mise en scene), pivotal figures in film history (such as D.W. Griffith, John Ford, Alfred Hitchcock, Walt Disney, and Steven Spielberg), and a variety of genres (such as silent comedy, westerns, musicals, and film noir).

Course: **Sociology and Economics**

Grade level: 11, 12

Credits: 5

Prerequisites: None

**Sociology** is a study of society, the significance of culture as a group product, and the importance of the individual in group settings. It covers an array of social problems encouraging the students to analyze those problems in a scientific manner. Sociology provides the student a framework within which the skills and functions necessary for understanding human relations can be developed.

**Economics** is the study of economy designed to give the student a better understanding of the economic process. Emphasis is placed on economic theory and practical application. Understanding economics provides the individual with an advantage--being able to participate more effectively as consumers, producers, investors, and voters. A unit on consumer economics will be included.

Course: **Civics and Government**

Grade level: 11, 12

Credits: 5

Prerequisites: None.

Civics and Government encourages students develop an interest in our government and how it works. Students will study government at Local, State and Federal levels. They will investigate how policies are created in different areas: foreign, domestic, and economic. Most importantly, the course includes an in-depth study of the Constitution of the United States and the basic rights it guarantees.

Course: **Introduction to Psychology**

Grade level: 12

Credits: 5

Prerequisites: None

This course will introduce students to many of the major fields of psychological study. Beginning with an overview of the history of psychology, the course will then look at recent developments in the areas of human development, memory, language acquisition, social behavior, and abnormal psychology. Students will be given the opportunity to develop their own research projects on various topics in psychology.

Course: **Introduction to Law**

Grade level: 12

Credits: 5

Prerequisites: None

This course is designed to give students an awareness of the legal system within which business operates today. Special consideration is also given to the Constitution, Constitutional rights, school law, crime, criminal procedure, torts and contracts.

## Department of Fine and Performing Arts

Course: **Introduction to the Performing Arts**

Grade level: 9, 10, 11, 12

Credits: 5

Prerequisites: None

This new and exciting course covers various aspects of the performing arts. It includes half a year of introduction to theater, and half a year of introduction to music. No experience in either field is necessary. Students will learn about the history of theater. Through watching films and performances, students will gain an overview of theatrical performing arts. Students will also learn about the history of music. Through listening to music, students will learn about different composers, and instruments. Basic music theory will be addressed. *Students are required attend four major performances at Morris Catholic High School.*

Course: **Theater Studies 1** Grade level: 9, 10, 11, 12 Credits: 5

Prerequisites: Teacher Approval

This is an exciting course covering various aspects of theater. The course will include workshops on voice and speech, mime, acting, performance, costuming, lighting and sound, and producing and directing. Students will be expected to choose a specific area of theater to study independently as well as participate fully in all productions. There will be classes in the theory and history of theater. Enthusiasm, energy and a desire to learn are the only prerequisites for this course.

Course: **Theater Studies 2** Grade level: 10, 11,12 Credits: 5

Prerequisites: Theater Studies 1 and Teacher Approval

Theater Studies 2 is a further development of Theater Studies 1 for students who want to pursue studies in this field. Individual areas of theater design and theater production are studied in more depth. A more active role in the production process for one or more of MCHS's theatrical productions is required.

Course: **Theater Studies 3** Grade level: 11, 12 Credits: 5

Prerequisites: Theater Studies 2 and Teacher Approval

Theater Studies 3 is a continuation of Theater Studies 2, and is designed with the theater major in mind. Students will fully participate in a design area or technical capacity for one or more of MCHS's dramas or musical, as well as take a leadership role for the New Jersey Thespian Festival competition.

Course: **Theater Studies 4** Grade level: 12 Credits: 5

Prerequisites: Theater Studies 3 and Teacher Approval

This course is an independent study program designed to be a workshop in which each student will pursue an area of personal interest, related to his or her individual strength in the Performing Arts. College audition pieces will be addressed.

Course: **Art Fundamentals** Grade level: 9, 10, 11, 12 Credits: 5

Prerequisites: None

This course gives students an overview and appreciation for fine art. Students will be introduced to many 2-D and 3-D experiences, working in a variety of mediums, and to various artists, as they relate to specific assignments. Students must demonstrate an effort in understanding and attain a certain skill level for each assignment. All students will submit one piece (minimum) for an in-school art exhibit.

Course: **Art I** Grade level: 10, 11, 12 Credits: 5

Prerequisites: Art Fundamentals and Teacher Approval

During the first semester, the students will work on basic layout and the design functions. Drawing will be extensive as the students begin to prepare portfolio-ready pieces. Print making and Oil painting will be introduced in the second half of the year. All studies will be reinforced with art history and a research paper.

Course: **Art II** Grade level: 11, 12 Credits: 5

Prerequisites: Art I and Teacher Approval

This course provides advanced studies in three-dimensional art, sculpture, oil painting, and drawing. An in-depth study of art history is also included. College portfolio needs will be addressed. Students preparing for careers in medicine, fine arts, nursing, illustration, and gallery art will benefit from this course.



Course: **Elements of Design** Grade level: 11, 12 Credits: 5

Prerequisites: Art I and Teacher Approval

This is an alternative Art II class for students interested in architecture, advertising, interior design, textile design, and structural/engineering. Two-dimensional elements of design, form, structure, color, shape, and texture will be addressed using various advanced media. Art history will be included. This course is designed for the serious artist. College portfolio needs will be addressed.

Course: **Graphic Arts I** Grade level: 10, 11, 12 Credits: 5

Prerequisites: Art Fundamentals

This course provides a basic understanding of graphic arts, printing technology, and their processes through the use of Adobe Illustrator and Photoshop programs. Assignments include a personal logo design, program cover, T-shirt designs, and others.



Course: **Graphic Arts II** Grade level: 11, 12 Credits: 5

Prerequisites: Graphic Arts I

Students will continue to learn Adobe Illustrator and Photoshop by continuing to explore the various filter capabilities as they pertain to digital photography and silk screening.

Course: **Morris Catholic (M.C.) Singers** Grade level: 9, 10, 11, 12 Credits: 5

Prerequisites: None

M.C. Singers, a large concert choir, is an exciting and serious performance course. It is designed to continue a student's study of singing, and the course may be continued from year to year. Literature studied consists of a wide variety of choral music, both sacred and secular, from ancient to modern music. Choir students are required to participate in all public performances, as these events serve as the culminating activities of the class learning experience, and are a large portion of each student's grade. Students are expected to establish and honor a home practice schedule. Private vocal study is encouraged.

Course: **Concert Band** Grade level: 9, 10, 11, 12 Credits: 5

Prerequisites: At least one year of experience on an instrument.

Concert Band is an exciting and serious performance course. It is designed to continue a student's study of a musical instrument, and the course may be continued from year to year. Literature studied consists of standard band literature, orchestral transcriptions, and small ensemble literature from a myriad of historical settings. Band students are required to participate in all public performances, as these events are the culminating activities of the class learning experience and are a large portion of each student's grade. Students will also meet with the instructor during lunch one day a week for small group instrumental lessons. Students are expected to establish and honor a home practice schedule. *Students are expected to bring their instruments to class daily and are encouraged to study privately.*

Course: **Fundamentals of Music Theory** Grade level: 10, 11, 12 Credits: 5

Prerequisites: Teacher Approval

Basic elements of music--key signatures, scales, intervals, triads, rhythmic and harmonic notation, beginning compositional part-writing, keyboard harmony--are included in this course. Students will be given a general overview of the different concepts, styles, and periods of music consisting of 20th century, jazz, blues, and other musical forms. Students will also learn the basics of playing the piano. *Students are required to participate in all public performances.*

Course: **Advanced Music Theory** Grade levels: 10, 11, 12 Credits: 5

Prerequisites: Fundamentals of Music Theory OR At least three years of experience on a musical instrument and teacher approval

