# Marshall High School Course Selection Guide

2020-2021 Edition

# Introduction

The Faculty and Staff of Marshall High School are pleased to present this Guide of MHS Course Offerings.

The graduation plans on the following pages follow the State of Texas Guidelines for students who will graduate in 2021 and beyond.

For the Classes of 2021-2023, MISD also requires students to complete either a certification or endorsement program. The Class of 2021 and beyond will fulfill this requirement through an endorsement in one of the following areas:

- CTE courses with a final course from the STEM career cluster
- STEM: Computer Science, Math, Science, or a combination of no more than two of the categories listed.
- Business and Industry
- Public Services
- Arts and Humanities; or
- Multidisciplinary Studies

# Table of Contents

# Marshall High School

# Graduation Plans and Requirements

## Marshall High School Graduation Plans

| Graduation Requirements | Foundation Plan | Endorsement Plan | Distinguished Level of Achievement |
|---|---|---|---|
| English | 4 | 4 | 4 |
| Math | 3 | 4 | 4 |
| Science | 3 | 4 | 4 |
| Social Studies | 3 | 4 | 4 |
| PE | 1 | 1 | 1 |
| Fine Arts | 1 | 1 | 1 |
| Foreign Language | 2 | 2 | 2 |
| Electives | 5 | 6 | 6 |
| TOTAL CREDITS | 22 | 26 | 26 |

***All students at MHS must complete at least the Endorsement Plan unless specified by parent***

## State Graduation Requirements

| Discipline | Requirements |
|---|---|
| English | English I, II, III and Advanced English Course |
| Mathematics | Algebra I, Geometry, Advanced Math Class |
| Science | Biology,<br>IPC or Advanced Science Course,<br>Advanced Science Course |
| Social Studies | US History, US Government, Economics,<br>World History or World Geography |
| Physical Education | One Credit |
| Foreign Language | Two Credits in Same Language |
| Fine Arts | One Credit |
| Speech | Demonstrated Proficiency in Speech Skills |
| Electives | Five Credits |
| TOTAL CREDITS | 22 PLUS 4 Credits in Endorsement |

# State Graduation Requirements

| | |
|---|---|
| **Endorsements** | **A student may earn an endorsement by successfully completing**<br>• **curriculum requirements for the endorsement**<br>• **a total of four credits in mathematics**<br>• **a total of four credits in science**<br>• **two additional elective credits** |
| **STEM** | A coherent sequence or series of courses selected from one of the following:<br>• CTE courses with a final course from the STEM career cluster<br>• Computer science<br>• Mathematics<br>• Science<br>• A combination of no more than two of the categories listed above |
| **Business and Industry** | A coherent sequence or series of courses selected from one of the following:<br>• CTE courses with a final course from the Plant Science; Animal Science and Pre-Veterinarian; Applied Agriculture Engineering; Welding; Digital Communications; Design and Multimedia Arts; Engineering; Accounting; Business Management; Culinary Arts; or Automotive career cluster<br>• The following English electives: public speaking, debate, advanced broadcast journalism including newspaper and yearbook<br>• Technology applications<br>• A combination of credits from the categories listed above |
| **Public Services** | A coherent sequence or series of courses selected from one of the following:<br>• CTE courses with a final course from the Cosmetology; Teaching & Training; Health Science; or Law, Public Safety, Corrections, and Security career cluster • AFJROTC |
| **Arts and Humanities** | A coherent sequence or series of courses selected from one of the following:<br>• Social studies<br>• The same language in Languages Other Than English<br>• Two levels in each of two language in Languages Other Than English<br>• American Sign Language (ASL)<br>• Courses from one or two categories (art, dance, music, and theater) in fine arts<br>• English electives that are not part of Business and Industry |
| **Multidisciplinary Studies** | A coherent sequence or series of courses selected from one of the following:<br>• Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence<br>• Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics<br>• Four credits in AP, IB, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts |
| | **Total Credits w/endorsement - 26** |
| **Distinguished Level of Achievement** | • A total of four credits in math, including credit in Algebra II<br>• A total of four credits in science<br>• Completion of curriculum requirements for at least one endorsement |
| **Performance Acknowledgments** | ▪ For outstanding performance<br>• in a dual credit course<br>• in bilingualism and biliteracy<br>• on an AP test or IB exam<br>• on the PSAT, the ACT-Plan, the SAT, or the ACT<br>▪ For earning a nationally or internationally recognized business or industry certification or license |

# White Cap and Gown Graduation Requirements

The Marshall ISD Board of Trustees have also provided additional requirements for students who wish to graduate with a white cap and gown. These requirements prove that the student has gone above and beyond their peers in preparing for their post-High School careers.

9th Grade –
- Complete at least **TWO** Pre-AP Courses
- Have a 95% attendance rate

10th Grade –
- Complete at least **TWO** Pre-AP Courses
- Take the PSAT (requirement for National Merit Scholar)
- Have a 95% attendance rate

11th Grade –
- Complete at least **TWO** AP, Pre-AP, or Dual Enrollment Courses
- Complete 3 years of a foreign language (requirement for National Merit Scholar)
- Take the ACT or SAT
- Have a 95% attendance rate

12th Grade –
- Complete at least **TWO** AP or Dual-Enrollment Courses
- Complete 3 years of a foreign language
- Be classified as College Ready
- Have a 95% attendance rate

# Marshall High School Grade Classification

| Grade | Credits |
|---|---|
| Freshman (9th) | 0 - 5 |
| Sophomore (10th) | 5.5 - 10 |
| Junior (11th) | 10.5 - 15 |
| Senior (12th) | 15.5+ |
| Graduation | 26 |

# Marshall High School Grade Point Scales

Different types of courses at MHS are assigned different grade point values. The most difficult courses, typically AP Courses, are worth the most grade points, followed by Mav-U Dual Credit Courses, Pre-AP Courses and Dual Credit Courses, then Regular Courses, and finally Basic Courses. Please refer to the chart on the following page for a detailed listing of grade value with regard to the different types of courses.

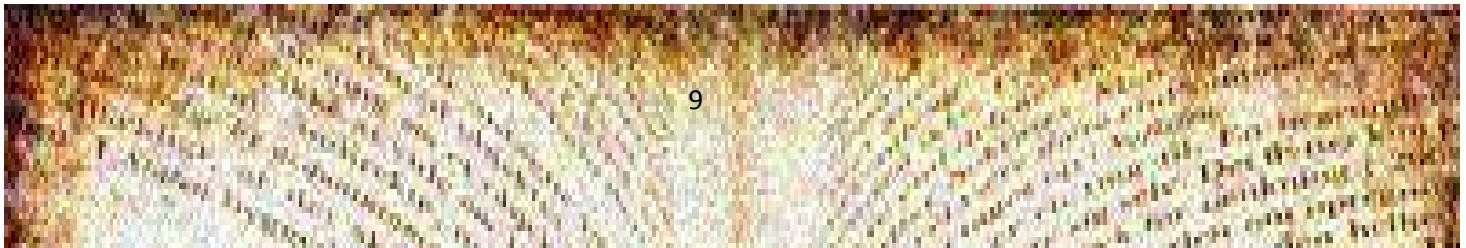
A student's grade point average (GPA) is calculated by taking into consideration the type of classes he or she has taken, with harder classes receiving greater weight in the GPA calculation.

# Marshall High School Grade Point Scales

| Report Card Grade | Tier I – AP Courses | Tier II – Mav U Dual Credit Courses | Tier III – Pre-AP and Other Dual Credit Courses | Tier IV – Regular Courses | Tier V – Modified Courses |
|---|---|---|---|---|---|
| 100 | 6.5 | 6.25 | 6 | 5 | 4 |
| 99 | 6.4 | 6.15 | 5.9 | 4.9 | 3.9 |
| 98 | 6.3 | 6.05 | 5.8 | 4.8 | 3.8 |
| 97 | 6.2 | 5.95 | 5.7 | 4.7 | 3.7 |
| 96 | 6.1 | 5.85 | 5.6 | 4.6 | 3.6 |
| 95 | 6 | 5.75 | 5.5 | 4.5 | 3.5 |
| 94 | 5.9 | 5.65 | 5.4 | 4.4 | 3.4 |
| 93 | 5.8 | 5.55 | 5.3 | 4.3 | 3.3 |
| 92 | 5.7 | 5.45 | 5.2 | 4.2 | 3.2 |
| 91 | 5.6 | 5.35 | 5.1 | 4.1 | 3.1 |
| 90 | 5.5 | 5.25 | 5 | 4 | 3 |
| 89 | 5.4 | 5.15 | 4.9 | 3.9 | 2.9 |
| 88 | 5.3 | 5.05 | 4.8 | 3.8 | 2.8 |
| 87 | 5.2 | 4.95 | 4.7 | 3.7 | 2.7 |
| 86 | 5.1 | 4.85 | 4.6 | 3.6 | 2.6 |
| 85 | 5 | 4.75 | 4.5 | 3.5 | 2.5 |
| 84 | 4.9 | 4.65 | 4.4 | 3.4 | 2.4 |
| 83 | 4.8 | 4.55 | 4.3 | 3.3 | 2.3 |
| 82 | 4.7 | 4.45 | 4.2 | 3.2 | 2.2 |
| 81 | 4.6 | 4.35 | 4.1 | 3.1 | 2.1 |
| 80 | 4.5 | 4.25 | 4 | 3 | 2 |
| 79 | 4.4 | 4.15 | 3.9 | 2.9 | 1.9 |
| 78 | 4.3 | 4.05 | 3.8 | 2.8 | 1.8 |
| 77 | 4.2 | 3.95 | 3.7 | 2.7 | 1.7 |
| 76 | 4.1 | 3.85 | 3.6 | 2.6 | 1.6 |
| 75 | 4 | 3.75 | 3.5 | 2.5 | 1.5 |
| 74 | 3.9 | 3.65 | 3.4 | 2.4 | 1.4 |
| 73 | 3.8 | 3.55 | 3.3 | 2.3 | 1.3 |
| 72 | 3.7 | 3.45 | 3.2 | 2.2 | 1.2 |
| 71 | 3.6 | 3.35 | 3.1 | 2.1 | 1.1 |
| 70 | 3.5 | 3.25 | 3 | 2 | 1 |

# National Honor Society Membership

National Honor Society membership at Marshall High School is for seniors only. Selection is made in the Spring of Junior year, August of senior year, and January of senior year. Selection is based on GPA, character, and discipline. A teacher committee makes the selections. Students are expected to earn community service hours and attend monthly meetings as part of their membership requirements for National Honor Society. Grades, attendance, and discipline are checked periodically through the school year to maintain membership.



# English Language Arts

# Course Descriptions

## English I

Students will read from a variety of genres to become more analytical readers and thinkers. They will analyze both visual interpretations and literature. They will study vocabulary and grammar and practice writing literary and expository essays as well as writing short answer responses to appropriate passages.

## Pre-AP English I

Pre-AP English I is a preparatory course for Advanced Placement Language and Composition and AP Literature for which students may receive college credit in their junior and senior years. Students will read from a variety of genres to become more analytical readers and thinkers. They will study advanced vocabulary and practice skills necessary to analyze and respond critically to written text.

## English II

The purpose of this course is to prepare students for appropriate oral and written language development. The course emphasizes the necessary skills in communication and critical thinking, as well as practice in writing expository and persuasive essays. Reading, writing, vocabulary and grammar skills are all vital to success in the pursuit of higher education for the ultimate workforce society.

## Pre-AP English II

Pre-AP English II is a preparatory course for Advanced Placement Language and Composition and AP Literature for which students may receive college credit in their junior and senior years. Students will read from a variety of genres to become more analytical readers and thinkers. They will study advanced vocabulary and practice skills necessary to analyze and respond critically to written text.

## English III

Course includes a study of the development of American literature through historical periods and literary movements with emphasis on significant works from important authors along with a review and continued study of grammar and usage with an emphasis on clarity in writing.

## AP English III (Language and Composition)

The purpose of the College Board Advanced Placement course is to prepare students for college work and/or AP exams that give students the opportunity to receive college credit. The AP course in English Language and Composition is designed to develop a student's awareness of language, of its purpose, how it changes and to sharpen his/her skills in effective writing and critical thinking and reading. It includes both the study of the process of writing and the reading and analysis of varieties of prose. The course is designed to be the approximate equivalent of freshmen English programs at most colleges and universities. If the student derives the maximum benefit from this course, he/she should be prepared to take and do well on the Advanced Placement English Examination in Language and Composition in May or on the College Level Examination Program (CLEP) exam in composition offered on college and university campuses. AP English III is an intensive composition course emphasizing writing rather than grammar and developing critical and analytical reading skills.

## English IV

Students enrolled in English IV continue to increase and refine their communication skills. High school students are expected to plan, draft, and complete written compositions on a regular basis. Students edit their papers for clarity, engaging language, and the correct use of the conventions and mechanics of written English and produce final, error-free drafts. Students will understand the history and development of the English Language by reading, interpreting, analyzing, and evaluating the influence that British History and World History had/has on our English Language. Students will use technology to enhance their knowledge, interpretation, analysis, and evaluation of the oral and written English Language.

## AP English IV (Literature and Composition)

Students are expected to read closely and carefully to glean not only the complexity of textural layering (meanings) of the written word, but also to understand the language strategies and skills such as figurative language, imagery, and symbolism that authors employ. Likewise, the application of such skills, as well as others, are encouraged and expected in a multitude of various writing opportunities for the student to demonstrate mature writing with a depth of thought. Both these intensive reading and well-constructed writing demands of the course are inherent in a beginning college curriculum.

## Dual Credit College English 1301 Rhetoric and Composition I

This is a course in the reading and writing of prose, mainly exposition. Students may take this course at any of the local college, including ETBU, Panola, and TSTC. They receive college credit from the college they attend and high school credit from MHS. This course is taken in conjunction with English 1302 for one year of senior English Credit.

## Dual Credit College English 1302 Rhetoric and Composition II

This is a course continues the study of writing and critical thinking skills begun in English 1301. It emphasizes the writing and reading of argumentative prose and adapting writing to various audiences. The course continues to emphasize process writing while concentrating on the research paper. Students may take this course at any of the local college, including ETBU, Panola, and TSTC. They receive college credit from the college they attend and high school credit from MHS.

***The following courses are <u>not</u> required for graduation, but are elective courses offered in the English Department:***

## <u>Yearbook I and II</u>

This course is a production course that produces the Maverick yearbook. All students must fill out an application, sign a yearbook contract and agree to follow all yearbook policies. Every student will have to work before or after school and on weekends to cover events for the yearbook. Subjects include law and ethics, writing for production (including headlines and captions); page design (beginner and advanced), typography, ad sales and design, public relations and marketing, yearbook production and budgeting. Every student will have an ad sales and book sales quota. Students will also be expected to compete in UIL Journalism writing contests in the fall and spring. Failure to complete yearbook assignments with quality work on deadline will result in removal from the yearbook staff.

## Course Descriptions

### Algebra I

Algebra 1 is a branch of mathematics in which students use symbols in a variety of ways to study relationships among quantities. Functions are used to represent and model problem situations and to analyze and interpret relationships. Students will set up and solve equations using a variety of methods. Multiple representations, tools, and technology are used to model mathematical situations.

### Geometry

Geometry helps students develop reasoning and problem solving skills through study of the points, lines, surfaces, and solids and how they relate to each other in space. We study lines, triangles, quadrilaterals, and circles by comparing their lengths, perimeters, areas, circumferences, surface areas, and volumes.

### Pre-AP Geometry

Pre-AP Geometry fosters a development of reasoning and problem solving skills that covers concrete and abstract examples of points, lines, surfaces and solids and how they relate to each other in space. Students develop thought processes based on deductive reasoning that will carry over to real world problems. It requires students to prove that their thought processes are valid.

### Math Models with Applications

Mathematical modeling is the process of examining a given situation or "real-world" problem and then developing an equation, formula, table, or graph that correctly represents the main features of the model. Math Models consists of studying a problem and then trying to connect the information given in the problem to your mathematical knowledge and problem-solving skills.

### Algebra II

Algebra II builds on students' previous algebraic skills. Topics include the properties of quadratic, square root, rational, logarithmic, and exponential functions. Applications to problem situations and appropriate use of technology are emphasized.

### Pre-AP Algebra II

Pre-AP Algebra II extends and builds on the foundation for the Advanced Placement program. Pre AP Algebra 2 builds on students' previous algebraic skills. Topics include the properties of quadratic, square root, rational, logarithmic, and exponential functions. Applications to problem situations and appropriate use of technology are emphasized.

### CTE Statistics and Risk Management

CTE Statistics is designed to support a first course in statistics that emphasizes statistical thinking. The focus is on statistical ideas and reasoning and on their relevance to such fields as medicine, education, environmental science, business, psychology, sports, politics, and entertainment.

## **College Algebra** (year-long dual credit course)

This course is taught and MHS, and students are awarded college credit by ETBU, as well as high school credit from MHS. Students study functions, their graphs, and their inverses. Also included are factoring, as well as the use of synthetic division and partial fractions, linear, quadratic, rational, radical, and exponential expressions as well as solutions to systems of equations an inequalities using graphing, elimination, and Cramer's rule.

## **Pre-AP Pre-Calculus**

Pre-AP Pre-Calculus extends and builds on the foundation for the Advanced Placement program. Pre-AP Pre-Calculus combines trigonometry, elementary analysis, and analytical geometry into a one year course. It is intended for students who are preparing themselves for upper level math courses such as AP Calculus.

## **Advanced College Algebra** (1 semester dual credit course)

This course is taught at ETBU in the Fall, and students are awarded college credit by ETBU as well as high school credit from MHS. Students study functions, their graphs, and their inverses. Also included are factoring, as well as the use of synthetic division and partial fractions, linear, quadratic, rational, radical, and exponential expressions as well as solutions to systems of equations an inequalities using graphing, elimination, and Cramer's rule. Students also take Elementary Statistics in the Spring to complete one year of math.

## **Elementary Statistics** (1 semester dual credit course)

This course is taught at ETBU in the Spring, and students are awarded college credit by ETBU as well as high school credit from MHS. This course is an introduction to the principles and methods of descriptive and inferential statistics. It is recommended for students who are interested in social and behavior sciences, business, natural and physical sciences, nursing and teacher education. Students also take Advanced College Algebra in the Fall to complete one year of math.

## **AP Calculus**

AP Calculus is the study of differential and integral calculus. In this course, we are primarily concerned with developing the students' understanding of the concepts of differential and integral calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results and problems being expressed graphically, numerically, analytically and verbally. The connections among these representations also are important.

# Science

# Course Descriptions

## Integrated Physics and Chemistry (IPC)

In Integrated Physics and Chemistry, students conduct laboratory and field investigations, use scientific methods during investigation, and make informed decisions using critical thinking and scientific problem solving. This course integrates the disciplines of physics and chemistry in the following topics: force, motion, energy, and matter.

## Biology

Biology is a laboratory science course that investigates the relationship between structure and function from molecules to organisms and systems, the interdependence and interactions of biotic and abiotic components of the environment, and mechanisms that maintain continuity and lead to changes in populations over time.

## Pre-AP Biology

Biology is a laboratory science course that investigates the relationship between structure and function from molecules to organisms and systems, the interdependence and interactions of biotic and abiotic components of the environment, and mechanisms that maintain continuity and lead to changes in populations over time. This course extends the biology concepts and TEKS with an emphasis on preparing students to take AP Biology, the equivalent of a college introductory course.

## Chemistry

Students study a variety of chemistry topics that include: matter, atomic and subatomic structure, radioactivity, the periodicity of elements, chemical bonding and formulas, chemical reactions, mole concept and stoichiometry, thermochemistry, solutions, and the chemistry of acids/bases and gases.

## Pre-AP Chemistry

Students in this advanced course investigate the same topics as the Chemistry course, enriched with higher level content and more emphasis on intensive laboratory investigations. Coursework includes various applications of Geometry, Algebra 2, and pre-Calculus.

## Physics

Students study a variety of topics that include: laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics.

## Pre-AP Physics

Students in this advanced course investigate the same topics as the Physics course, enriched with higher level content and lab investigations, including applications of Geometry and Algebra II. Independent research is an integral part of this course

## Anatomy and Physiology

Students in A and P will investigate the organization and physiological principles of the human body. They will distinguish structure and function of body systems, including tissue, skeletal, muscle, nervous, digestive, respiratory, cardiovascular, urinary, and reproductive systems.

## Environmental Systems

In Environmental Systems, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: biotic and abiotic factors in habitats, ecosystems and biomes, interrelationships among resources and an environmental system, sources and flow of energy through an environmental system, relationship between carrying capacity and changes in populations and ecosystems, and changes in environments.

## AP Biology

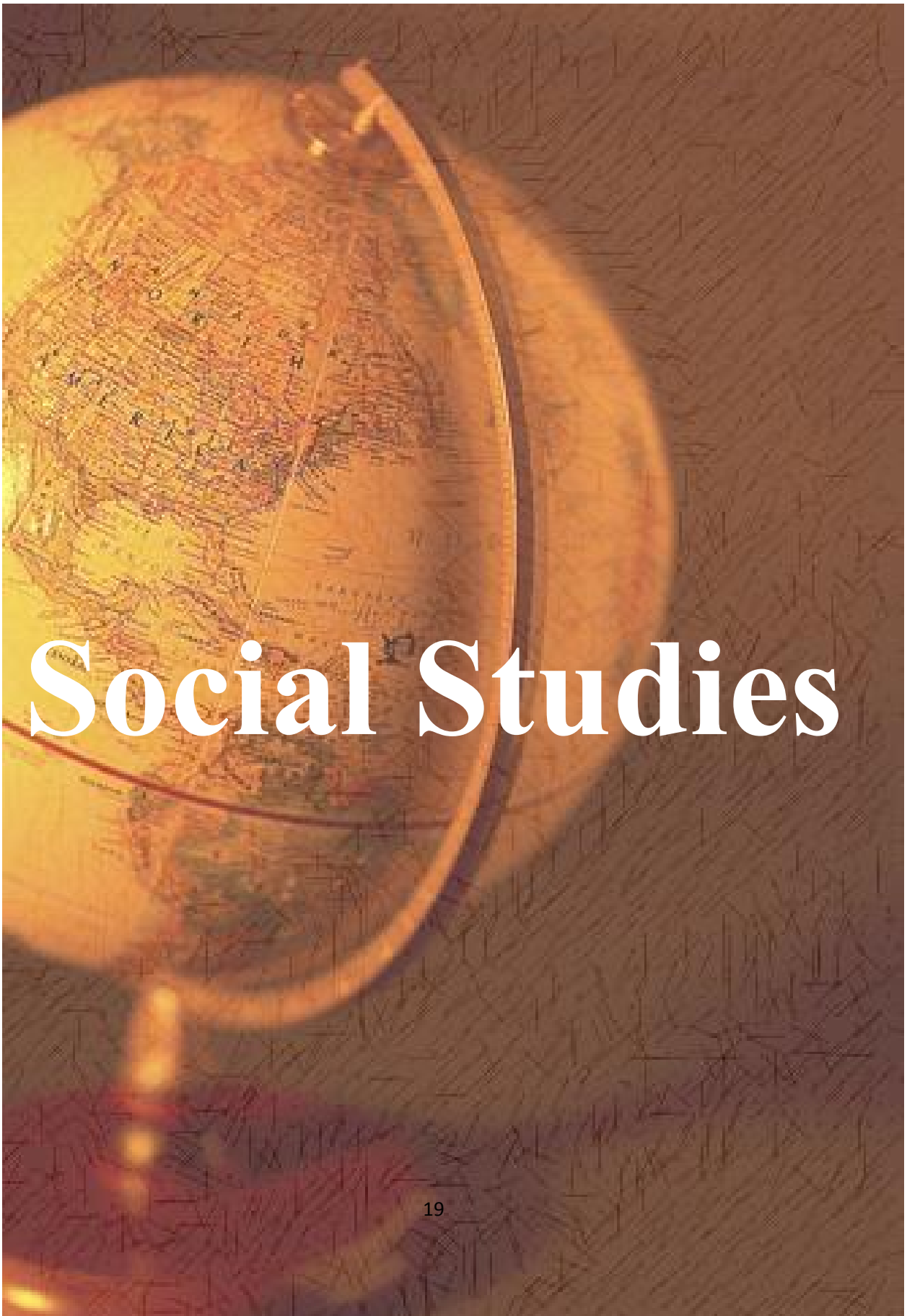
The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year. The college course in biology differs significantly from the usual first high school course in biology with respect to the kind of textbook used, the range and depth of topics covered, the type of laboratory work done by students, and the time and effort required of students. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology.

## AP Chemistry

This course is recommended as a second year chemistry course after Chemistry or pre-AP Chemistry. Topics in this rigorous, college-level course include atomic theory and radioactivity, bonding, states of matter, solutions, chemical kinetics, thermodynamics, chemical equilibrium, acid/base reactions, REDOX reactions and electrochemistry, organic chemistry, and element groups. Laboratory procedures that are recommended by the College Board are also part of the course. The course concludes with the AP Chemistry exam in May. The College Board recommends that AP Chemistry as a second year chemistry course with a four-year college-preparatory program in mathematics.

## AP Physics

This course is recommended as a second year physics course after Physics, or Pre AP Physics. Topics in this rigorous, college-level course include mechanics, electricity and magnetism, fluid mechanics and thermal physics, waves and optics, and atomic and nuclear physics. A strong lab component with technology applications designated by the College Board is included. Students will prepare to take the AP Physics B Exam in May. The College Board recommends AP Physics B as a second year physics course with Physics, Algebra II, and Pre-Calculus prerequisites.



# Social Studies

# Course Descriptions

## World Geography

In World Geography Studies, students examine people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography. Students describe the influence of geography on events of the past and present with emphasis on contemporary issues. A significant portion of the course centers around the physical processes that shape patterns in the physical environment; the characteristics of major landforms, climates, and ecosystems and their interrelationships; the political, economic, and social processes that shape cultural patterns of regions; types and patterns of settlement; the distribution and movement of the world population; relationships among people, places, and environments; and the concept of region.

## Pre-AP World Geography

Students will actively engage in the work of a geographer by asking geographic questions and then acquiring, organizing, analyzing, and interpreting geographic information in order to answer geographic questions. This course is designed for students who are highly internally motivated and have the ability to draw connections from variety of data. Approximately ½ hours a day or 3-4 hours per week should be allotted outside of the class for studying and homework. A strong social studies background will benefit the individual as well a working knowledge of basic World concepts.

## World History

World History Studies is a survey of the history of humankind. The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world.

## Pre-AP World History

This course offers an overview of the entire history of mankind, with emphasis on significant people, events and issues which shaped our world. Key topics will include tracing the historical development of important legal and political concepts; the impact of religious and philosophical traditions; and the origins of contemporary economic systems-to name a few. A cause and effect approach will focus on the development of agriculture; feudalism; democratic governments; political and economic imperialism, World Wars I and II; the Cold War and conclude with issues facing our world today.

## US History

In United States History Studies Since 1877, which is the second part of a two-year study that begins in Grade 8, students study the history of the United States from 1877 to the present. The course content is

based on the founding documents of the U.S. government, which provide a framework for its heritage. Historical content focuses on the political, economic, and social events and issues related to industrialization and urbanization, major wars, domestic and foreign policies, and reform movements.

## AP US History

AP United States history is a two-semester, college-level class offered to high school students to prepare them to take the AP exam in an attempt to earn college credit. The scope of the class covers from pre-Columbian societies to modern issues currently facing the United States. In the course of study, the major themes are also emphasized, especially American diversity, American identity, economic transformations, globalization, politics and citizenship, and reform.

## US Government

This course is the culmination of the civic and governmental content and concepts studied from Kindergarten through required secondary courses. In United States Government, the focus is on the principles and beliefs upon which the United States was founded and on the structure, functions, and powers of government at the national, state, and local levels. A significant focus of the course is on the U.S. Constitution, its underlying principles and ideas, and the form of government it created. Students analyze major concepts of republicanism, federalism, checks and balances, separation of powers, popular sovereignty, and individual rights.

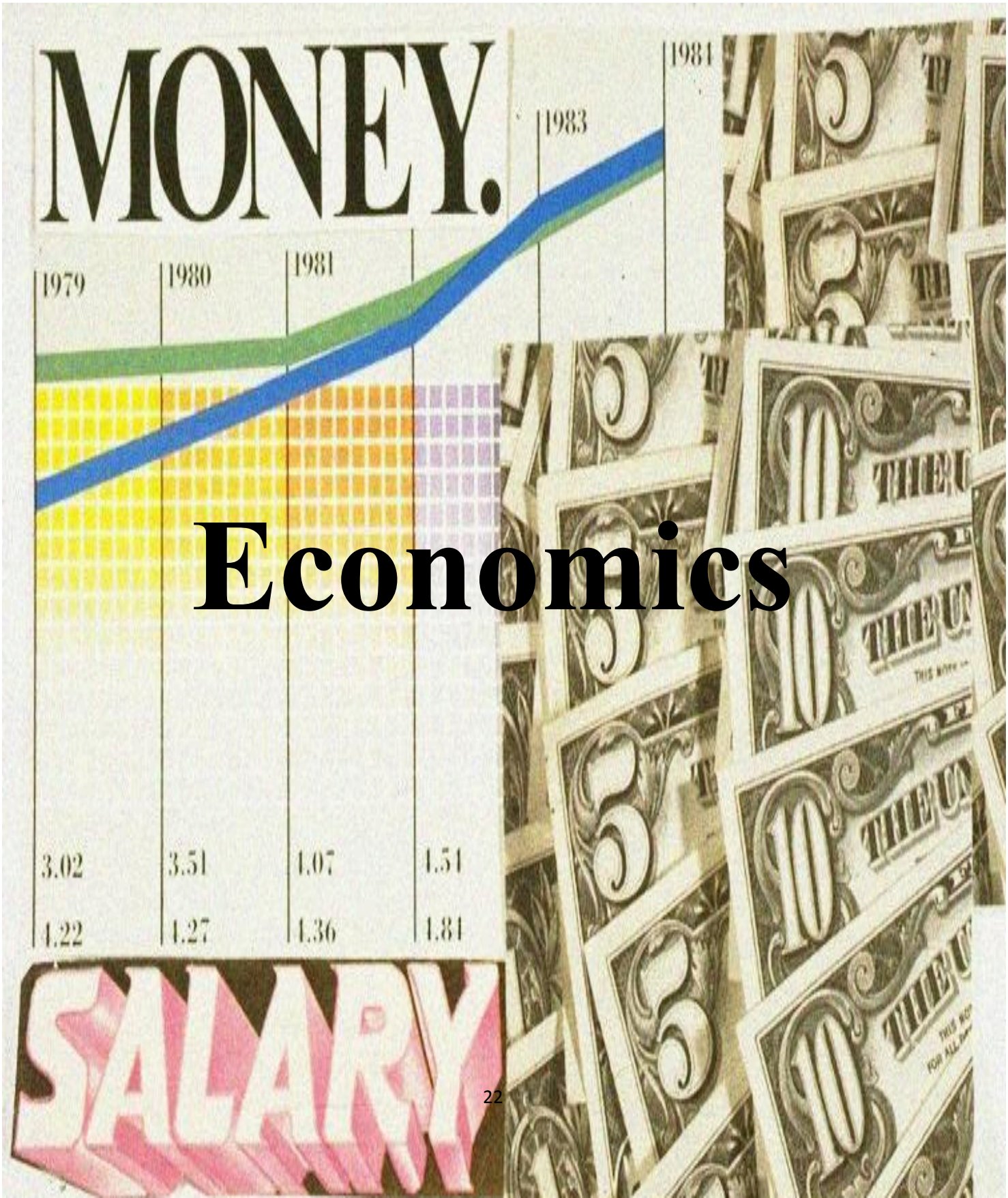
## AP US Government and Politics

AP United States Government and Politics is an extensive study of the formal and informal structures of government and the processes of the American political system. The course will have a strong focus on policy-making and implementation and the everyday practice that directs the daily operation of our government. This course is taught on a college level and is designed to prepare the students to take the AP United States Government and Politics Exam.

## AP Human Geography

The main purpose of this course is to expose students to the study of geography as a social science at an introductory college-level. A basic outline would include the following questions:

1. What basic concepts do geographers use?
2. Where are people located in the world?
3. How are different cultural groups distributed?
4. How do people earn a living in different parts of the world?
5. What issues result from using the earth's resources?


MONEY.
1979
1980
1981
1983
1984
3.02
3.51
1.07
1.51
4.22
4.27
4.36
4.81
SALARY

# Economics

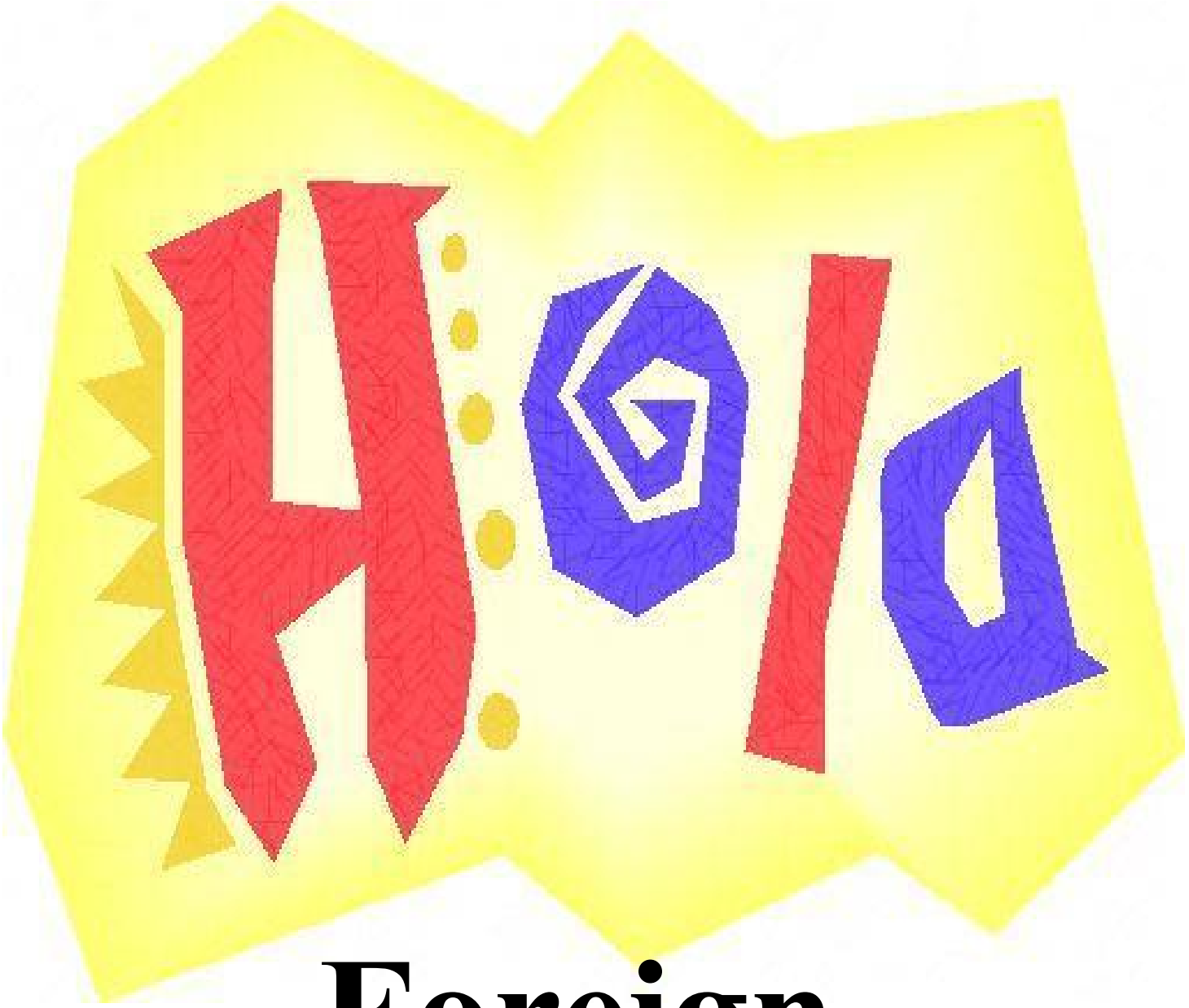
# Course Descriptions

## Economics

Economics with Emphasis on the Free Enterprise System and Its Benefits is the culmination of the economic content and concepts studied from Kindergarten through required secondary courses. Students analyze the interaction of supply, demand, and price. Students will investigate the concepts of specialization and international trade, economic growth, key economic measurements, and monetary and fiscal policy. The course also incorporates instruction in personal financial literacy. Students apply critical-thinking skills using economic concepts to evaluate the costs and benefits of economic issues.

## AP Macroeconomics

This course is an introduction to Macroeconomics. It deals with the economic principles that apply to an economic system as a whole, such as national income and price determination, economic performance measures, economic growth, international trade, government spending and taxation, money and banking. This course is taught on a college and is designed to prepare the students to take the AP Macroeconomics Exam.




# Foreign Language

## Course Descriptions

### Spanish I

Spanish I is a proficiency-based class designed to introduce basic vocabulary and the fundamentals of the Spanish language through the context of everyday situations. Students will develop the skills of listening, speaking, reading and writing, and will study grammar as it relates to vocabulary topics. In addition, this course will seek to enhance an understanding of the diverse cultures of the Spanish Speaking world including literary works from the AP Spanish list. This class will be primarily taught in Spanish. Students are expected to use Spanish in the classroom.

### Spanish II

This class aims to develop the students' knowledge of the Spanish language and Spanish-speaking cultures. Students will read literary works from the authors on the AP Spanish list of works and authors. It is a standards-based class that includes topics including authentic culture and real life communication to motivate students to learn Spanish. The instruction uses an integrated approach that practices reading, writing, listening, and speaking, as well as introducing students to cultures throughout the Spanish-speaking world. This class will be primarily taught in Spanish. Students are expected to use Spanish in the classroom.

### Pre-AP Spanish II

This class is a review and an expansion of listening/speaking/reading/writing abilities, with an increased emphasis on speaking, reading and writing. Students will read literary works from the authors on the AP Spanish list of works and authors. Students will be able to converse, write and read at the Intermediate-mid level of the American Council on the Teaching of Foreign Languages (ACTFL) Guide to Foreign Language Proficiency. This class will be primarily taught in Spanish. Students are expected to use Spanish in the classroom.

### Pre-AP Spanish III

Spanish III is a review and an expansion of listening/speaking/reading/writing abilities, with an increased emphasis on communicating and writing. Students enrolled in the Spanish III class should possess a strong background of grammar, and have acquired skills in speaking, writing, reading, and understanding Spanish. Students will read literary works from the AP Spanish list. Moreover, the curriculum for this course is designed to enhance these skills as well as to broaden the students' awareness of Latin America through a variety of activities. The class is predominately conducted in Spanish. In this class you will gain advanced proficiency in all four-language skills: listening, speaking, reading, and writing. Note: This class is required for students interested in graduating in a white cap and gown.

## AP Spanish Language

This course will challenge students to grow in all aspects of the Spanish Language. The purpose of the course is to prepare students for the AP Spanish 4 exam in the spring. The test will include written and oral responses. It is the equivalent to a junior level college Spanish course. Spanish is **spoken at all times** by both the teacher and the students. The students will sign a contract at the beginning of the year that states the teacher's expectations for them as well as the "no English" policy. Students will be able to understand conversations, lectures, presentations and short readings in Spanish, write in Spanish using a variety of styles to express themselves and their opinions and learn a variety of writing strategies for different audiences; communicate in Spanish through debates, presentations and daily discussions; and broaden their understanding of the cultures that comprise the Spanish speaking world through the study of history, literature, art, music and cultural events.

## AP Spanish Literature

The purpose of the course is to prepare students for the AP Spanish Literature test which is administered in the spring. On the test, students will write essays that critically analyze selected works from Hispanic authors. It is the equivalent to a junior level college Spanish course. Spanish is spoken at all times by both the teacher and the students. The students will sign a contract at the beginning of the year that states the teacher's expectations for them as well as the "no English" policy. Students will be able to read and comprehend Spanish on an advanced to superior level, express themselves through composition on an advanced to superior level, listen and understand Spanish on an advanced to superior level, communicate with others in Spanish on an advanced to superior level and have an advanced to superior understanding of Hispanic culture and history.

# Physical Education (PE)

**Course Descriptions**

## PE (Physical Education)

Students develop motor skills and learn the rules of sports while engaging in physical activity. They learn the enjoyment of healthy lifestyles and the benefits of aerobic activity. One semester is of PE is often paired with one semester of Foundations of Physical Fitness to meet the 1 credit of PE required for graduation.

## Dance Prep

This PE course is taken in the Fall semester, and is primarily aimed toward girls who intend to try out for Mavettes.

## Athletics

Students may choose to participate in a wide variety of sports while in high school. Athletic courses offered at MHS are Baseball, Softball, Basketball, Football, Soccer, Golf, Cross Country, Tennis, Power-Lifting, Track and Field, and Volleyball.

## Cheerleading

Cheerleaders support athletics and other activities at MHS and have a Cheer Class during the school day in which to practice and organize cheerleading activities. They also compete in cheer competitions. Students try out for a position as a cheerleader.

## Mavettes

Mavettes is a competitive drill team. Students audition for positions on the team and perform at athletic events and in competition. Mavettes hold an annual dance show in the Spring and all girls are expected to appear at extracurricular events as determined by the Mavette director.

## AEROSPACE SCIENCE COURSES

For organizational purposes Aerospace Science is separated from the Leadership Education component in each AFJROTC class. In practice, however, the overlap is considerable. For example, writing and speaking skills are categorized as "Leadership Hours" but can and should be incorporated into the Aerospace Science courses. Additionally, many of the Aerospace Science topics will be helpful in the Leadership Education classes.

- **AS-200: The Science of Flight – A Gateway to New Horizons,**
  An option for the second year student is a science course designed to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere and weather. After developing an understanding of the environment, how that environment affects flight is introduced. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The portion on the Human Requirements of Flight is a survey course on human physiology. Discussed here are the human circulatory system, the effects of acceleration and deceleration, and protective equipment. This course is a prerequisite for AS-500 Aviation Honors Ground School.

- **AS-220: Cultural Studies: An Introduction to Global Awareness – Russia**
  This is a multidisciplinary course that introduces students to various regions of the world from a geographic, historical and cultural perspective. The course provides increased international awareness and insight into foreign affairs that permits a more educated understanding of other cultures and enhanced knowledge of America's interests and role in the world. Geopolitical issues such as terrorism, economics, politics, military issues, religion, environmental concerns, human rights, disease, over population, literacy, the migration of peoples and other cultural issues will be examined. The regional areas included in this course are Europe, the Middle East, South Asia, East Asia, Africa, and Latin America. The lessons include excellent videos to provide a window into life and issues within the regions, followed by a variety of hands-on activities created to engage the student. Readings are also available to set the stage for each lesson, along with workbook exercises suitable for in-class or homework assignments.

- **AS-400: Management of the Cadet Corps**
  Upper class cadets manage the entire corps under AFJROTC instructor supervision. This course is an AS option and practicum for those cadets to provide hands-on experience for the opportunity to put the theories of previous leadership courses into practice. All the planning, organizing, coordinating, directing, controlling, and decision-making will be done by the cadets, under the supervision of AFJROTC instructors. They practice their communication, decision-making, personal-interaction, managerial, and organizational skills.

- **AS-410: Survival: "Orientation and Traveling"**
  The Survival text is a synthesis of the basic survival information found in Air Force Regulation 64-4, Survival Training, and serves as another AS option. The survival instruction will provide training in skills, knowledge, and attitudes necessary to successfully perform fundamental tasks needed for survival. Survival also presents "good to know" information that would be useful in any situation. The information is just as useful to an individual lost hunting or stranded in a snowstorm.

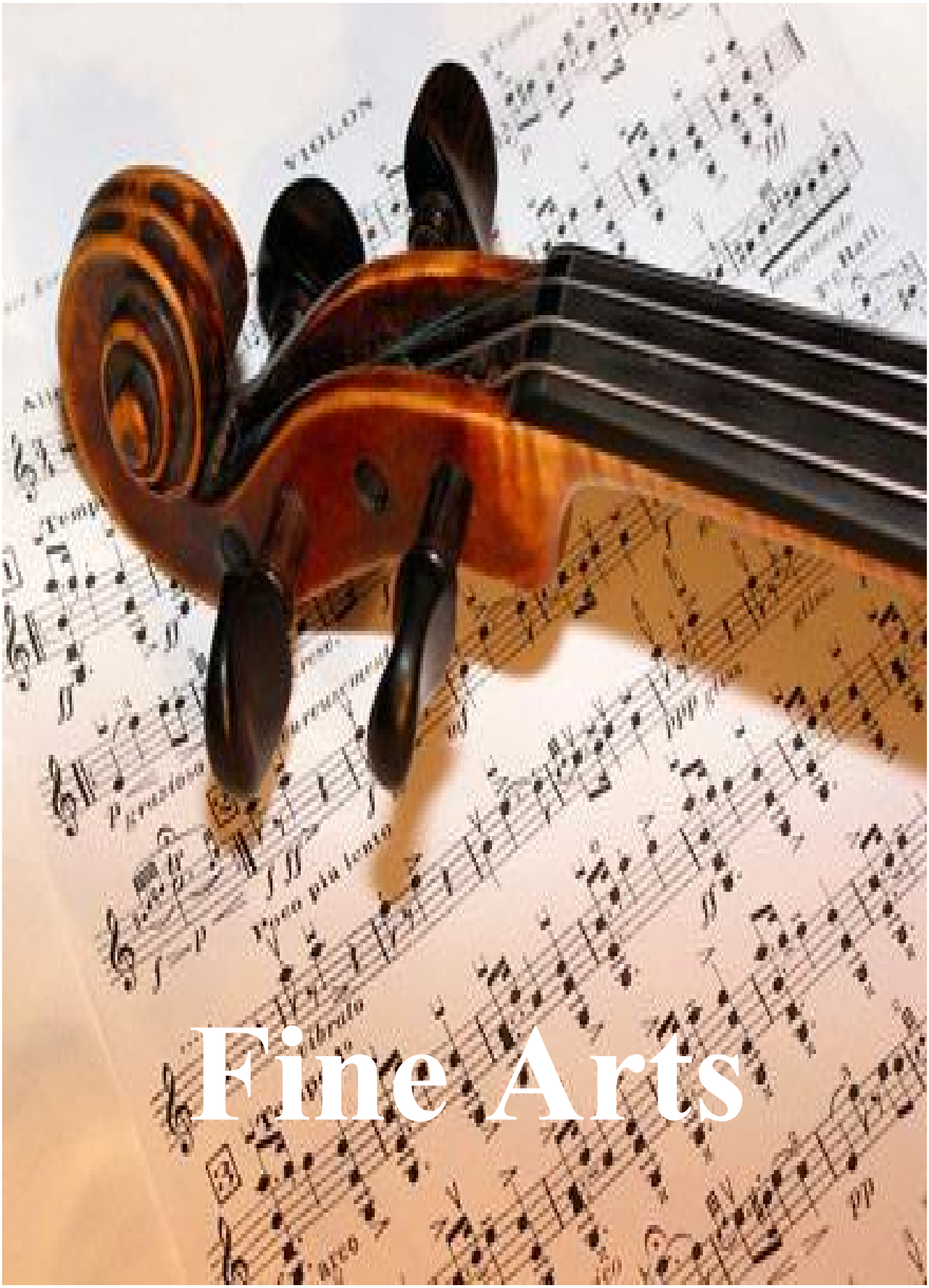
# LEADERSHIP EDUCATION COURSES

Leadership Education (LE) is an integral part of each year's instruction for AFJROTC cadets. Each year's activities are broken into Academic and Leadership components. In practice, however, the overlap is considerable. The development of writing and speaking skills are categorized as "Leadership Hours," yet when used to present subject matter related to what is being taught in the "academic" area, the results are twofold. Additionally, many after-school activities provide the proving ground for newly learned leadership skills. Activities such as drill teams, model rocketry clubs, and the formal cadet corps' operation all require offices with considerable responsibilities. To describe the leadership portion of the curriculum as being 288 hours (72 hours per year) is technically true, in practice it is highly understated.

- **LE-100: Citizenship, Character & Air Force Tradition, Unit 1**
  This course introduces cadets to the Air Force Junior Reserve Officer Training Corps (AFJROTC), providing a basis for progression through the rest of the AFJROTC program while instilling elements of good citizenship. As such, it should be the first LE course taken by new cadets. It contains sections on cadet and Air Force organizational structure; uniform wear; customs, courtesies, and other military traditions; health and wellness; fitness; individual self-control; and citizenship. If this course cannot be taught first to new cadets, at least the first unit in the course and the first part of Unit Four should be taught before entering other LE instruction.

- **LE-200: Communication, Awareness, and Leadership, Units 1-4**
  This course stresses communications skills and cadet corps activities. It is normally taught to second-year cadets, but may be taught to other grade levels also. Much information is provided on communicating effectively, understanding groups and teams, preparing for leadership, solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Cadet corps activities include holding positions of greater responsibility in the planning and execution of corps projects.

- **LE-500: Drill and Ceremonies, Chapters 1&2**
  This course provides an in-depth introduction to drill and ceremonies. This is not a stand-alone course, but is taught as part of the Leadership Education 40% for all Air Force Junior ROTC class. Drill and Ceremonies concentrates on the elements of military drill, and describes individual and group precision movements, procedures for saluting, drill, ceremonies, reviews, parades, and development of command voice. Students are provided detailed instruction on ceremonial performances and protocol for civilian and military events and have the opportunity to personally learn drill. Though each class will follow an established lesson plan, most of the work is to be hands-on.


Fine Arts

# Course Descriptions

## Band I-IV

This course is designed for students who will participate in Marching and Concert band. Students must attend rehearsals and extracurricular activities such as concerts, athletic competitions, and UIL contests.

## Jazz Band I-IV

A select group of students who are currently enrolled in Band and who have been approved by the Band director comprise this performance group.

## Color Guard I-IV

The purpose of the Marshall High School Color Guard is three-fold:

- To perform and entertain audiences;
- To boost the morale of the school; and
- To develop character, leadership and individual responsibility in each member, while maintaining high moral standards.

## Bella Voce Girls' Choir I-IV

Bella Voce Girls' Choir is an all-girl non-varsity competing choir made-up mostly of freshmen (or upperclassmen needing further work in sight-reading or pitch skills). Students are accepted to this choir via audition or by recommendation from the junior high choir director. Students in this class will work to develop the necessary musical skills needed to advance to an upper-level choir. All students in choir are required to attend all performances outside the school day.

## Select Women's Choir I-IV

Select Women's Choir is an auditioned all-girl varsity competing choir. Students in this class are more advanced musicians who have achieved upper-level sight reading and part-singing skills. All students in this choir are required to attend all performances outside the school day, and maintain UIL eligibility.

## Men's Chorus I-IV

Men's Chorus is an all-male non-varsity competing choir made-up mostly of freshmen (or upperclassmen needing further work in sight-reading or pitch skills). Students are accepted to this choir via audition or by recommendation from the junior high choir director. Students in this class will work to develop the necessary musical skills needed to advance to an upper-level choir. All students in choir are required to attend all performances outside the school day.

## Chorale (10th - 12th Grade)

Chorale is an auditioned mixed varsity competing choir. Students in this class are more advanced musicians who have achieved upper-level sight reading and part-singing skills. All students in this choir are required to attend all performances outside the school day, and maintain UIL academic eligibility.

## Madrigal Singers (10th - 12th Grade)

The Madrigal Singers is a small varsity-level ensemble made-up of members of Chorale by audition. The group sings mostly Renaissance music in costume around the community as well as at choir concerts. Each member must provide their own costume, attend concerts, and remain academically eligible.

## Dance I-IV

Students acquire knowledge of dance as an art form. Dance skills are learned and refined in class and performance. Basic choreography, communication through dance, and the cultural significance of dance are also covered.

## AP Art Portfolio

The AP Music Theory course is a study of advanced music literacy, focusing on aural and written musical skills. Students are prepared for college freshman level music theory courses in harmony, dictation, and ear training. The class is open to junior and senior students currently also enrolled in a choir, band, or orchestra or those who have studied private piano for 5 or more years. This class is highly recommended for any student planning to major in music in college.

## Art I

Students use direct observation, imagination, and personal experiences as inspiration for artworks. Types of art explored in this course are pastels, water color, papier-mâché, and other 2 and 3 dimensional media. Art influence in daily life is also explored.

## Art II-IV

Building on skills in Art I, students create original works using a variety of mediums. They search for parallels between visual structures in their natural and man-made environments. Drawing is used to illustrate writing and students learn to critique their own work as well as the work of others.

## Theater Arts I

In Theatre Arts I, students will receive a general overview of the art of theatre. This course will include performance, theatre history, and technical theatre.

## Theater Arts II

In Theatre Arts II, students will dive deeper into the art of theatre including detailed study of performance elements, technical application, and world influences in theatre.

## Theater Production I and II

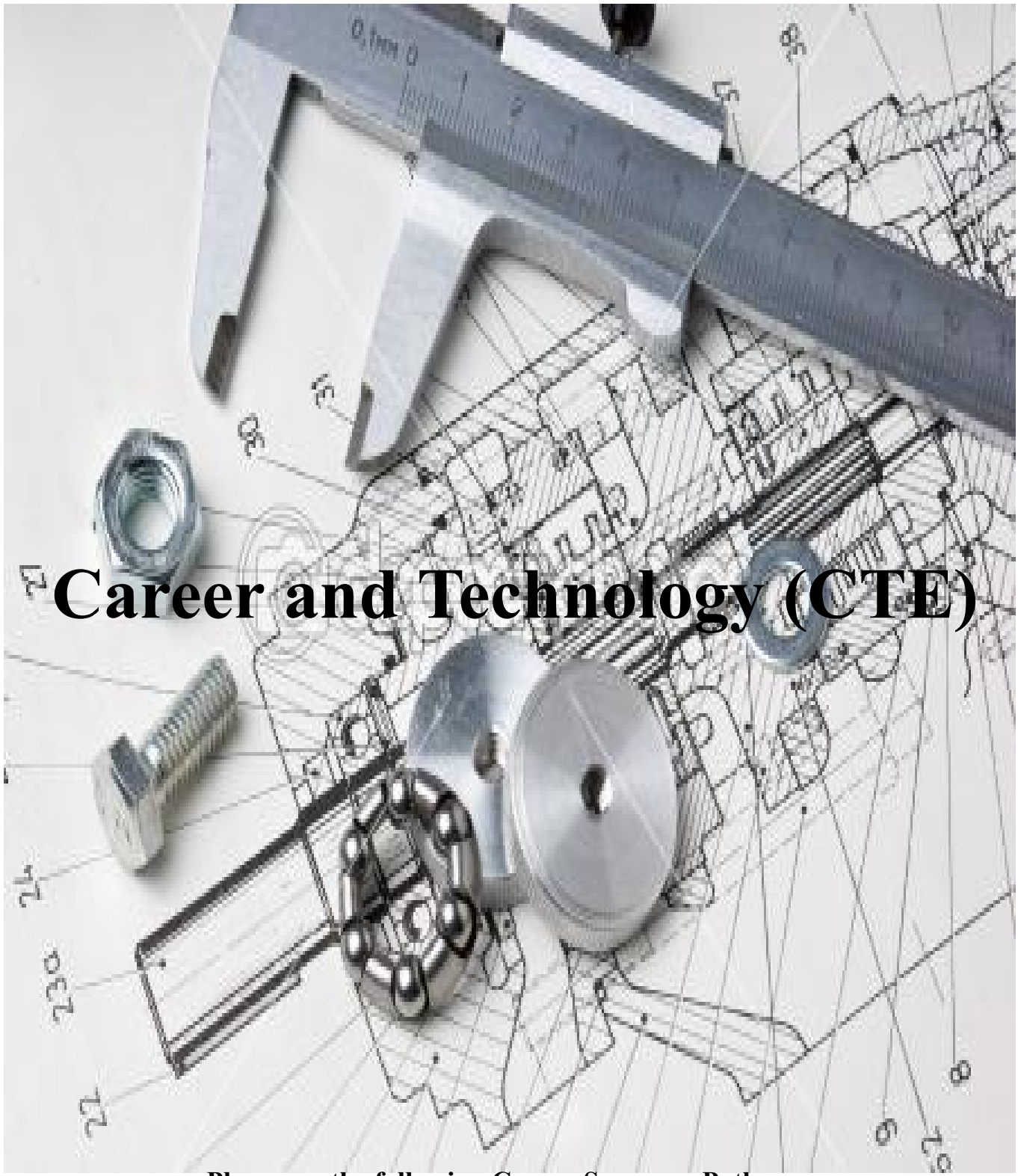
In Theatre Production, students will focus on production aspects of theatre. This includes set construction/design, publicity for productions, and other necessary elements. This course will also have an emphasis on performance and acting.

## Principles and Elements of Floral Design

Students learn the art of floral design as well as an understanding of the flower production industry and floral enterprises. This course is also part of the Career and Technology Curriculum. Principles of Agriculture, Food, & Natural Resources is a pre-requisite of this course.

## Orchestra I-IV

Chamber Orchestra is a performing and competing string instrumental ensemble. Students in this ensemble are required to attend all after-school rehearsals and performances and must have at least two years of experience on a stringed instrument before entering this class.



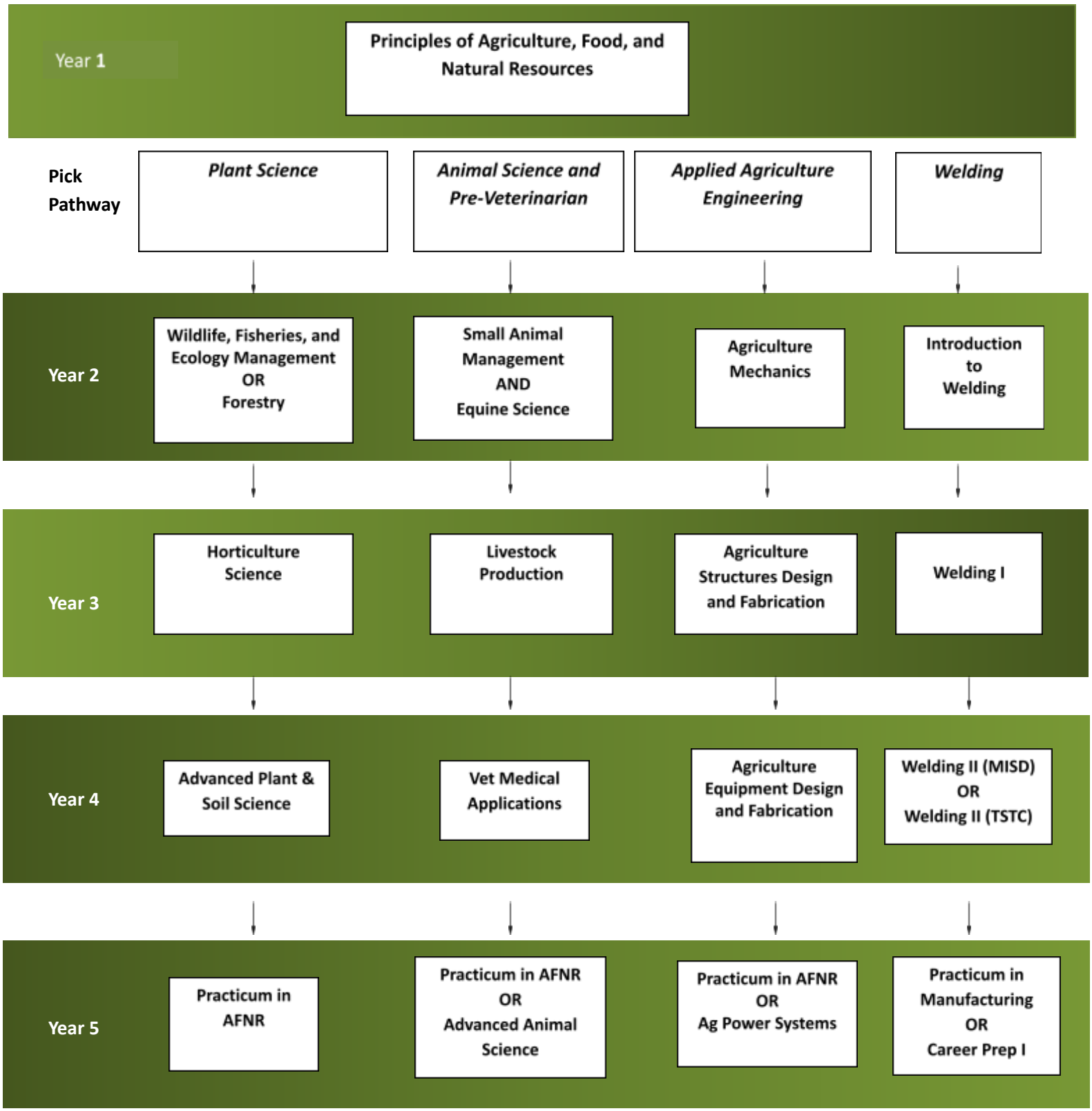
# Career and Technology (CTE)

**Please see the following Course Sequence Pathways.**

**Course Descriptions follow the Course Sequence Pathways.**

# Career and Technology Education Pathways


# Agriculture, Food, and Natural Resources



# Course Descriptions

## *Agriculture, Food, and Natural Resources*

### Principles of Agriculture, Food, and Natural Resources

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

### Wildlife, Fisheries, and Ecology Management

Wildlife, Fisheries, and Ecology Management examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

### Horticulture Science

Horticultural Science is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

### Advanced Plant and Soil Science

Advanced Plant and Soil Science provides a way of learning about the natural world. Students should know how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. To prepare for careers in plant and soil science, students must attain academic skills and knowledge, acquire technical knowledge and skills related to plant and soil science and the workplace.

### Practicum in Agriculture, Food, and Natural Resources

Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

### Small Animal Management

In Small Animal Management, students will acquire knowledge and skills related to small animals and the small animal management industry. Small Animal Management may address topics related to small mammals such as dogs and cats, amphibians, reptiles, and birds.

## Equine Science

In Equine Science, students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules.

## Livestock Production

In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry.

## Veterinary Medical Applications

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species.

## Advanced Animal Science

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.

## Agricultural Mechanics

Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

## Agricultural Structures Design and Fabrication

In Agricultural Structures Design and Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication.

## Agricultural Equipment Design and Fabrication

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment.

## Agricultural Power Systems

Agricultural Power Systems is designed to develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

## Introduction to Welding

Introduction to Welding will introduce welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

## Welding I

Welding I provide the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

## Welding II (MISD)

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

## Welding II (TSTC)

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. This option is considered a dual credit course where the student will attend class at TSTC to continue developing Welding skills.

# Practicum in Manufacturing

The Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

## Digital Communications and Design

**and**

| | |
|---|---|
| Principles of Art, A/V Technology and Communications | Video Game Design |

## Multimedia Arts

| | | |
|---|---|---|
| Year 1 | | |
| Year 2 | Audio/Visual Production I | Video Game Programming |
| Year 3 | Audio/Visual Production II | Advanced Video Game Programming |
| Year 4 | Practicum in Audio/Visual Production | Practicum in Graphic Design OR Web Game Development |

# Course Descriptions

## *Digital Communications and Design and Multimedia Arts*

## Principles of Arts, A/V Tech and Communications

The goal of this course is for the student understands arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

## Audio/Visual Production I

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products.

## Audio/Visual Production II

Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post- production products. This course may be implemented in an audio format or a format with both audio and video.

## Practicum in Audio/Visual Production

Building upon the concepts taught in Audio/Video Production II, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

## Video Game Design

Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while

developing technical proficiency in constructing an original game design.

## Video Game Programming

Video Game Programming expands on the foundation created in Video Game Design through programming languages such as: C# programming, XNA game studio, Java, and Android App. In this course, students will investigate the inner workings of a fully functional role-playing game (RPG) by customizing playable characters, items, maps, and chests and eventually applying customizations by altering and enhancing the core game code.

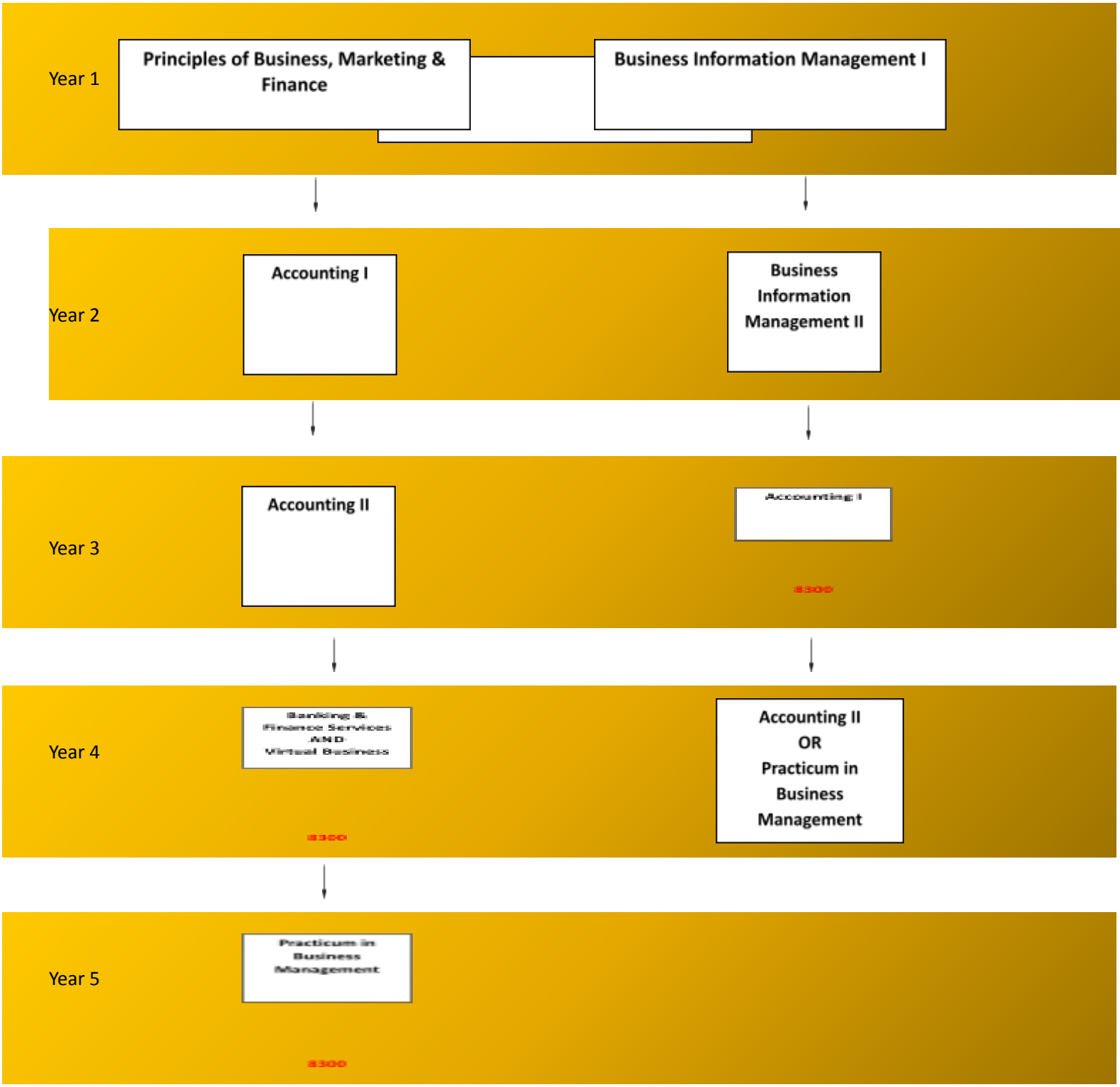
## Advanced Video Game Programming

Students will be introduced to mobile application design and programming using Java and Eclipse for Android devices. Time will be spent learning basic Java programming and working with Android Studio to develop real working apps. Using Unity as an introduction to 3D game development, students will have exposure to and an understanding of: object-oriented programming concepts; game development skill with programs such as Unity; 3D modeling with programs such as Blender; image manipulation with programs such as GIMP; concepts related to the design process; and the ability to communicate and collaborate on group-based projects.

## Web Game Development

Students will develop applications and games using the internet. Time will be spent learning how to program in Java, develop and understand Voice over Internet Protocol (VoIP), as well as continuing to develop skills from the previous courses.

# Business Management and Accounting



# Course Descriptions

## *Business Management and Accounting*

## Principles of Business, Marketing, and Finance

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

## Accounting I

In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making. Accounting includes such activities as bookkeeping, system design, analysis, and interpretation of accounting information

## Accounting II

In Accounting II, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.

## Banking & Finance Services

In Banking and Financial Services, students will develop knowledge and skills in the economic, financial, technological, international, social, and ethical aspects of banking to become competent employees and entrepreneurs. Students will incorporate a broad base of knowledge that includes the operations, sales, and management of banking institutions to gain a complete understanding of how banks function within society.

## Virtual Business

Virtual Business is designed for students to start a virtual business by creating a web presence, conducting online and off-line marketing, examining contracts appropriate for an online business, and demonstrating project-management skills. Students will also demonstrate bookkeeping skills for a virtual business, maintain business records, and understand legal issues associated with a virtual business.

## Business Information Management I

In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word- processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

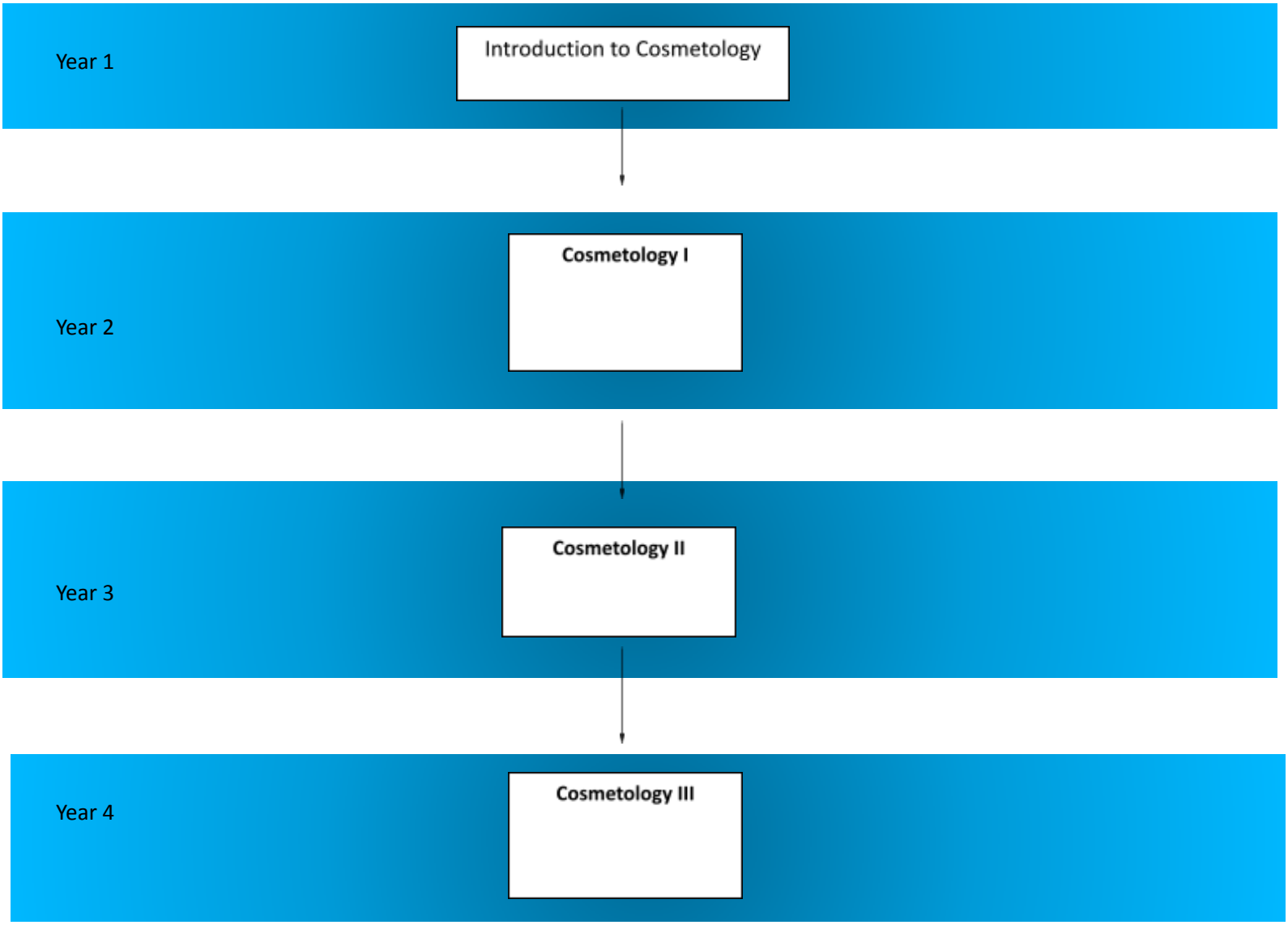
## Business Information Management II

In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

## Practicum in Business Management

Practicum in Business Management is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

# Cosmetology



# Course Descriptions

# *Cosmetology*

## Introduction to Cosmetology

In Introduction to Cosmetology, students explore careers in the cosmetology industry. To prepare for success, students must have academic and technical knowledge and skills relative to the industry. Students may begin to earn hours toward state licensing requirements. **(Students are required to pay the following fees to join this class: $25.00 for a student permit and $100 for a cosmetology kit.)**

## Cosmetology I

In Cosmetology I, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

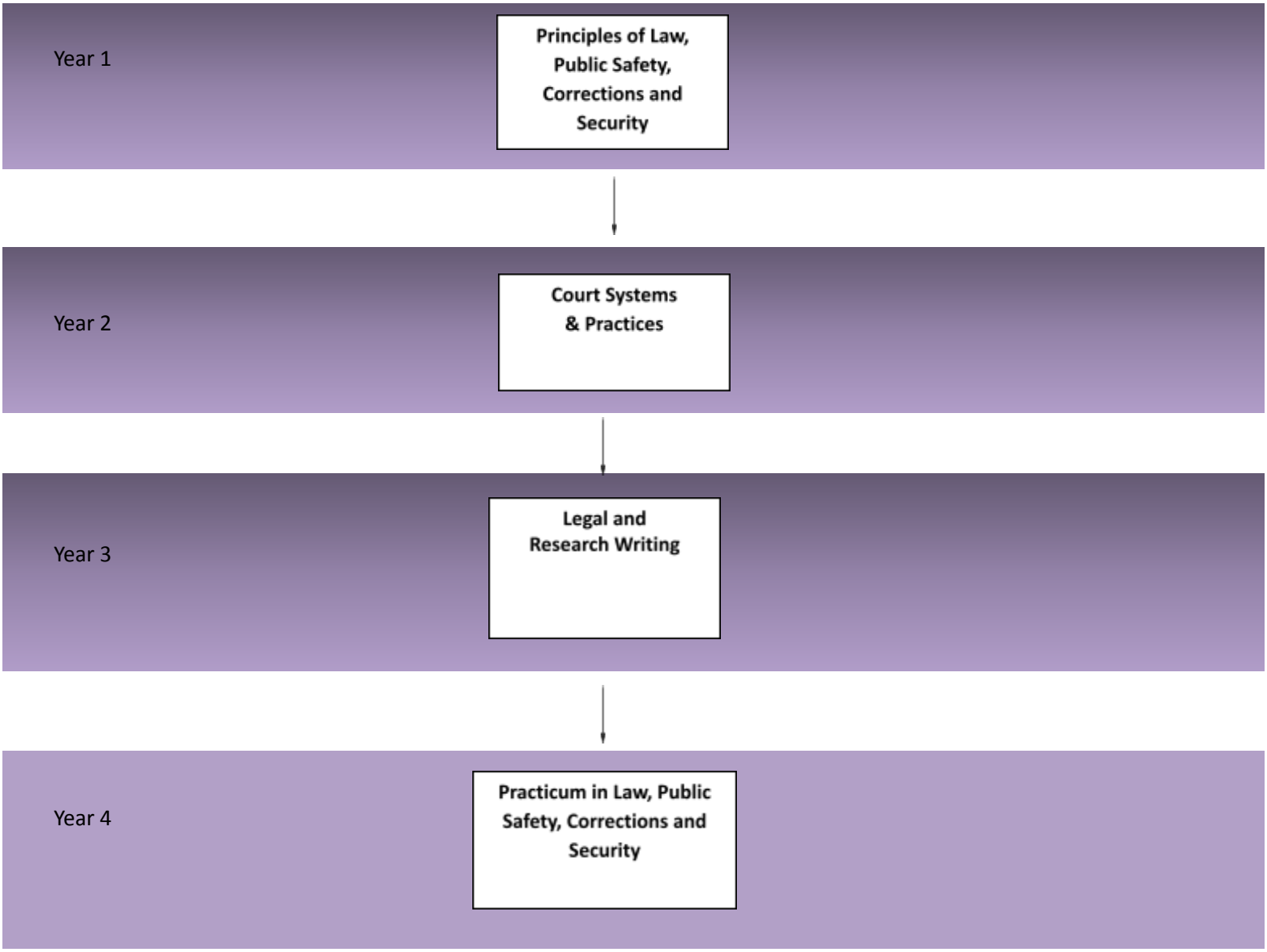
## Cosmetology II

In Cosmetology II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies, and materials; and practical skills.

## Cosmetology III

The Cosmetology III course provides students additional lab time to develop proficient and mastery level cosmetology skills and techniques as required by Texas Department of Licensing and Regulation licensing standards. Students are expected to develop proficient and mastery level work samples and to expand their work experiences.

# Law Enforcement



# Course Descriptions

## *Law Enforcement*

## Principles of Law, Public Safety, Corrections and Security

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

## Court Systems & Practices

Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal procedures such as search and seizure, stop and frisk, and interrogation.

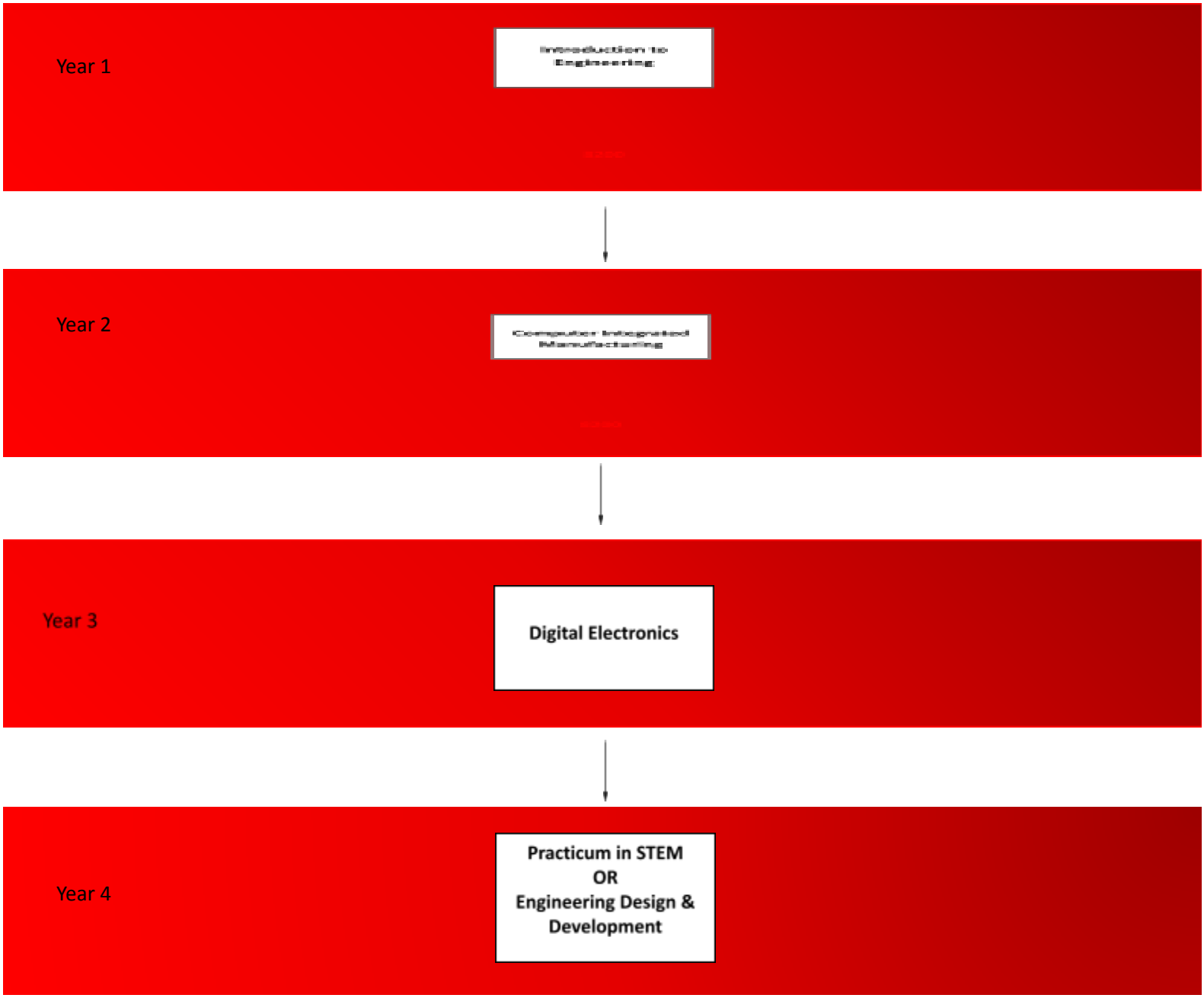
## Legal Research and Writing

Legal Research and Writing provides an introduction into the study and practice of legal writing and research. This course is designed to introduce students to the methods and tools used to conduct legal research, develop and frame legal arguments, produce legal writings such as briefs, memorandums, and other legal documents, study U.S. Constitutional law, and prepare for appellate argument(s).

## Practicum in Law, Public Safety, Corrections and Security

The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

# Engineering



# Course Descriptions

## *Engineering*

## Introduction to Engineering Design

Students study the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. They work both individually and in collaborative teams to identify, research, test, refine, develop, and communicate design solutions using industry practices, standards, and tools. Utilizing PLTW's activity-project-problem-based teaching and learning strategies students' progress from structured activities to complex projects that require detailed planning, documentation, and communication. The course's rigorous pace requires students to develop an engineering mindset. Students apply industry accepted technical communication skills in visual representation using industry-standard 3D design technology as well as professional and industry specific documentation processes. The development of computational methods in engineering problem solving, including statistical analysis and mathematical modeling are emphasized.

## Computer Integrated Manufacturing

The course deepens the skills and knowledge of an engineering student within the context of efficiently creating the products around us. Students build upon their Computer Aided Design (CAD) experience through the use of Computer Aided Manufacturing (CAM) software. CAM transforms a digital design into a program that a Computer Numerical Controlled (CNC) mill uses to transform a block of raw material into a product designed by a student. Students learn and apply concepts related to integrating robotic systems such as Automated Guided Vehicles (AGV) and robotic arms into manufacturing systems. Throughout the course students learn about manufacturing processes and systems. This course culminates with a capstone project where students design, build, program, and present a manufacturing system model capable of creating a product.

## Digital Electronics

Digital Electronics is the study of electronic circuits that are used to process and control digital signals. In contrast to analog electronics, where information is represented by a continuously varying voltage, digital signals are represented by two discreet voltages or logic levels. This distinction allows for greater signal speed and storage capabilities and has revolutionized the world of electronics. Digital electronics is the foundation of modern electronic devices such as cellular phones, digital audio players, laptop computers, digital cameras, and high-definition televisions. The primary focus of Digital Electronics is to expose students to the design

process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation.

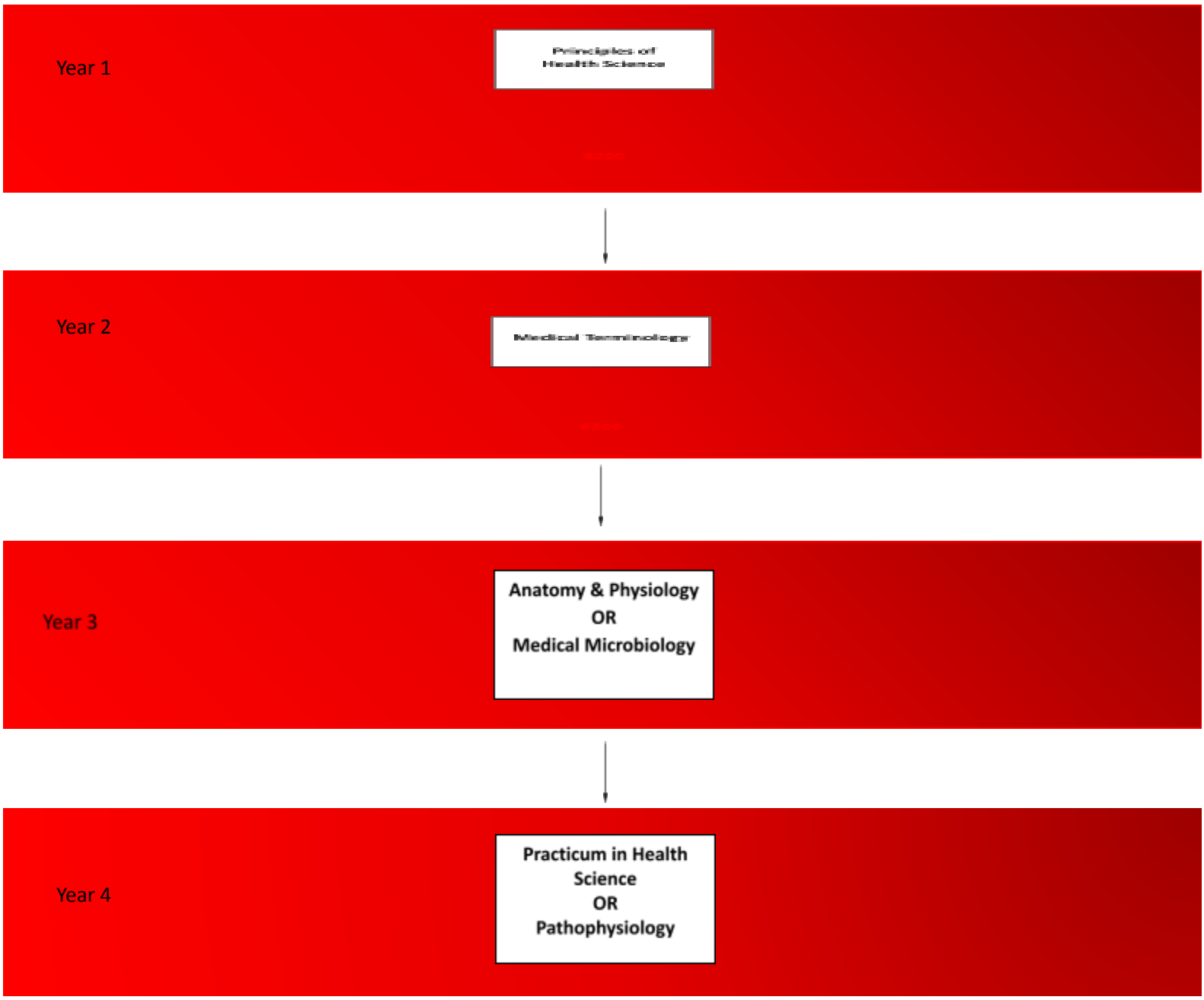
## Engineering Design & Development

Students perform research to select, define, and justify a problem. After carefully defining the design requirements and creating multiple solutions, students select an approach, create, and test the solution prototype. Students present and defend their solution to an outside panel. While progressing through the engineering design process, students work closely with experts and continually hone their organizational, communication and interpersonal skills, and their creative and problem solving abilities.

## Practicum in STEM

Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

# Health Science



# Course Descriptions

## *Health Science*

## Principles of Health Science

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

## Medical Terminology

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

## Anatomy & Physiology

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

## Medical Microbiology

The Medical Microbiology course is designed to explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement.

## Pathophysiology

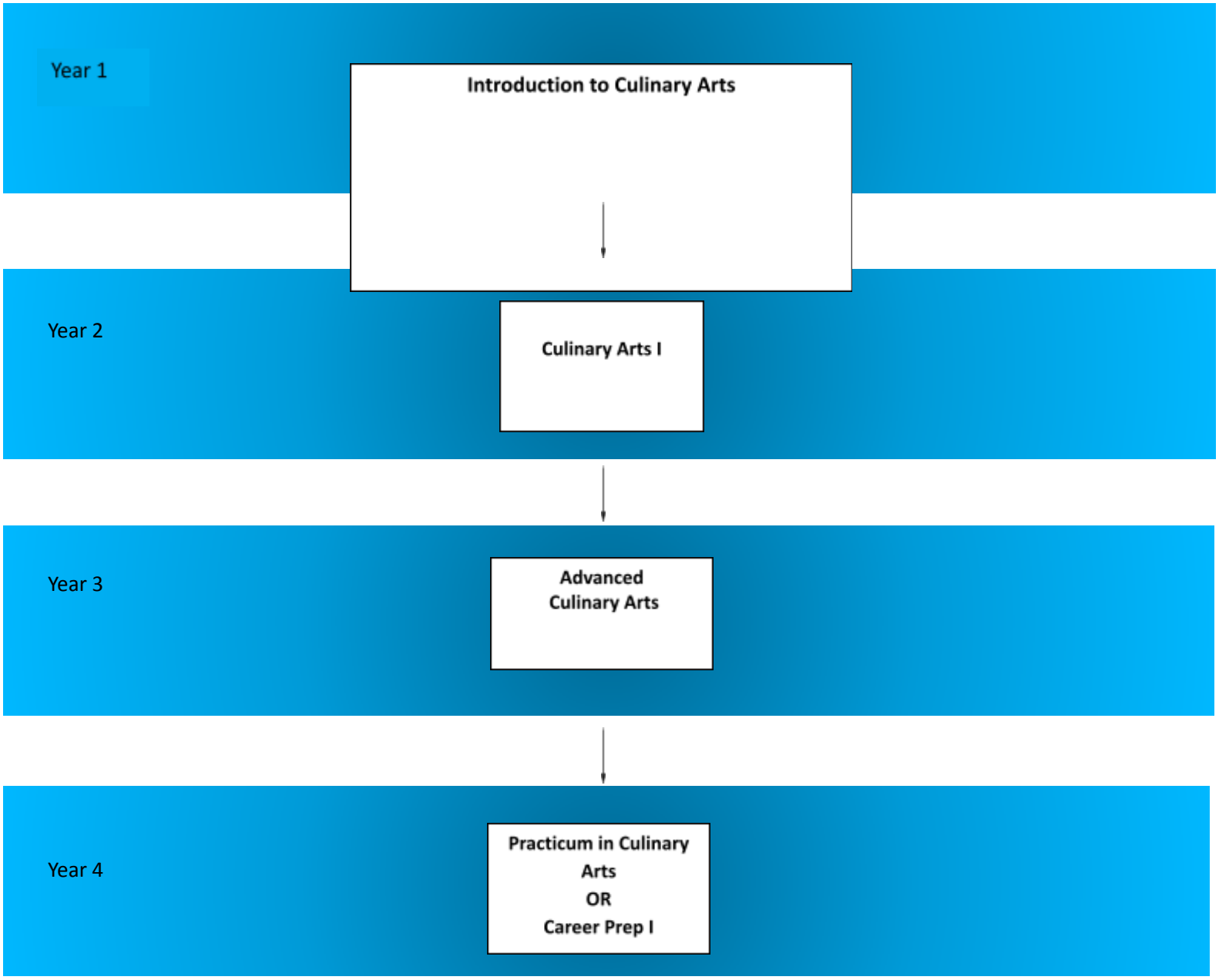
The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific

problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

## Practicum in Health Science

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

# Culinary Arts



# Course Descriptions

## *Culinary Arts*

## Introduction to Culinary Arts

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

## Culinary Arts I

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

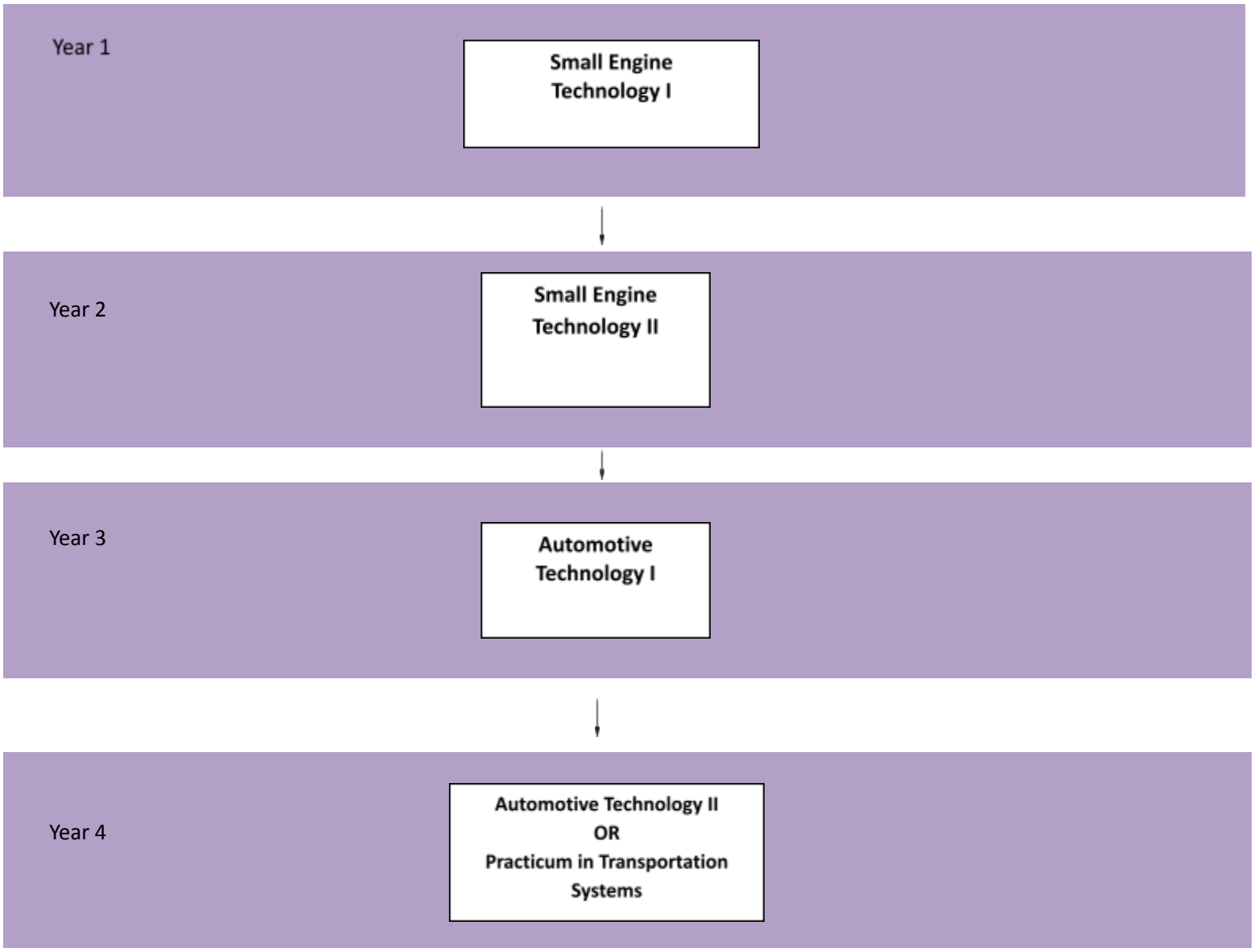
## Advanced Culinary Arts

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

## Practicum in Culinary Arts

Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing culinary art based workplace.

# Transportation



# Course Descriptions

## *Transportation*

## Small Engine Technology I

Small Engine Technology I includes knowledge of the function and maintenance of the systems and components of all types of small engines such as outdoor power equipment, motorcycles, generators, and irrigation engines. This course is designed to provide training for employment in the small engine technology industry. Instruction includes the repair and service of cooling, air, fuel, lubricating, electrical, ignition, and mechanical systems. In addition, the student will receive instruction in safety, academic, and leadership skills as well as career opportunities.

## Small Engine Technology II

Small Engine Technology II includes advanced knowledge of the function, diagnosis, and service of the systems and components of all types of small engines such as outdoor power equipment, motorcycles, generators, and irrigation engines. This course is designed to provide hands-on and practical application for employment in the small engine technology industry. Instruction includes the repair and service of cooling, air, fuel, lubricating, electrical, ignition, and mechanical systems and small engine overhauls. In addition, students will receive instruction in safety, academic, and leadership skills as well as career opportunities.

## Automotive Technology I

Automotive Technology I: Maintenance and Light Repair includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. In Automotive Technology I: Maintenance and Light Repair, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

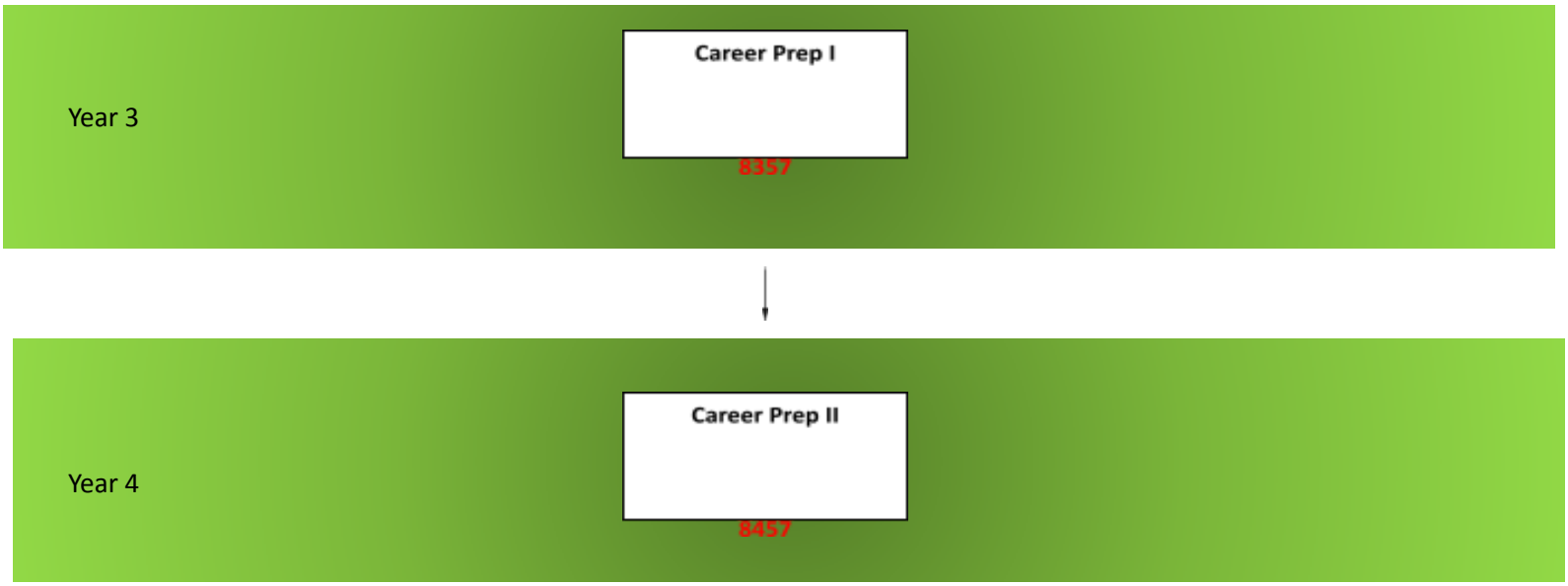
## Automotive Technology II

Automotive Technology II: Automotive Service includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. In this course, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

## Practicum in Transportation Systems

Practicum in Transportation Systems is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.

# Work Based Learning



## Course Descriptions

### *Work Based Learning*

## Career Prep I

Each student develops a career plan based on interests and aptitudes. Exposure to a variety of careers is encouraged. They will learn about resume writing, letters of recommendation, application processes, and other career tools in order to be better prepared for the work force.

## Career Prep II

Students learn the concepts and competencies that will allow them to enter the job market with skills appropriate to new and emerging occupational fields and to also be prepared for higher education.