



2019-2020
Course Curriculum Guide

CONTENTS

General Information	1
Graduation Requirements	1
Course Selection Guidelines	1
AP Courses	2
Adjusted Grade Point Averages.....	2
Pass/Fail and No Credit Courses	2
Dual Enrollment.....	2
Language Arts	3
Curriculum Overview	3
Course Descriptions	3
Theology	6
Requirements.....	6
Course Descriptions	6
Mathematics.....	8
Course Placement.....	8
AP Calculus Requirements	8
Curriculum Overview	8
Course Descriptions	9
Science.....	11
Requirements.....	11
Curriculum Overview	11
Course Descriptions	12
Social Studies.....	16
Curriculum Overview	16
Course Descriptions	16
World Languages.....	20
American Sign Language.....	20
French	20
Spanish.....	21
Fine Arts	22
Art	22
Music.....	25
Business.....	26
Computer Science.....	27
Physical Education.....	28

GENERAL INFORMATION

Graduation Requirements

For graduation from high school, a student is required to have earned a minimum of 25 units of credit and have successfully earned credit in the following areas:

Theology	4 credits
Language Arts	4 credits: 4 Semesters each of Composition & Literature
Mathematics	4 credits: Algebra 1 & 2, Geometry
Science	3 credits: Biology & either Physics or Chemistry
Social Studies	3 credits: World History, US History, Government, & Economics
World Language	2 credits: 2 Consecutive Years of a World Language
Fine Arts	1 credit
Technology	1 credit
Public Speaking	$\frac{1}{2}$ credit: Public Speaking or Glee
Physical Education	$\frac{1}{2}$ credit
Health	$\frac{1}{2}$ credit

In addition to the required academic credits, 42 community service hours must be completed and documented before a diploma will be awarded. See Student Planner for the specifics of this requirement.

To improve their chances of acceptance to the college of their choice, students are encouraged to select courses from the highest level for which they qualify.

Course Selection Guidelines

1. All students are required to take 7 courses each semester.
2. Students must discuss their course selections with their parents and consult with their teachers and counselor. A parent's signature is required on the course request form. Double check prerequisites for courses selected.
3. Any error on the student's schedule must be brought to the attention of the counselor within the first five days of school.
4. Students and parents should realize that, though rare, a student's schedule might include two courses of the same subject (e.g. 2 Physical Education, 2 Social Studies) in one semester. This occurs when it is the only way to accommodate the courses selected by the student.
5. Students are not permitted to add or to drop courses once the course selection sheet has been turned in. Any approved change must be made before the end of the second week of a semester. If a change is approved, a fee of \$40 must be paid before the change will be processed.
6. Yearlong classes cannot be dropped at the semester.
7. Student Aide positions are available in particular subjects, as described in the Course Offerings. At the time of registration, all aide and assistant positions must be approved and signed by the appropriate teacher or department chairperson. See individual department aide/assistant positions for eligibility and grading policy. Unpublished aide positions assigned during schedule conflict resolution are graded pass/fail, do not count for credit, and are not included in the student's career GPA.

Advanced Placement (AP) Courses

Students enrolled in AP Courses are required to take the AP Exam. The exam fee, currently \$94.00, is the responsibility of the student and is billed along with course fees. The fee is determined by The College Board.

Adjusted Grade Point Averages

The grade point average that Gabriel Richard publishes is an *adjusted GPA*. Additional quality points are added to the point value of grades earned in Honors and AP courses. Honors courses receive an additional 1/3 of a point (A=4.33, etc.). AP courses receive an additional 1 point (A=5.00, etc.).

Pass/Fail and No Credit Courses

Pass/fail courses carry a weight of 0.0 and earn 0.5 credits if passed. *No credit* courses (generally unlisted teacher/department aides) carry a weight of 0.0 and earn 0.0 credits.

Dual Enrollment

The State of Michigan has enacted legislation that permits students in private schools to benefit from *dual enrollment*.

Dual enrollment allows students in grades 9 - 12 to take courses, including those online, at Michigan public or private colleges and universities. The State of Michigan pays for the tuition, fees, and books of students who qualify for the program but does cap the total amount of funds allocated to each student. This is an exceptional opportunity for many students, but there are a number of specific conditions regarding participation:

- A student must have qualifying standardized assessment scores as determined by the State of Michigan.
- The course cannot be a required academic class needed for high school graduation or one already offered at Gabriel Richard Catholic High School.
- The course cannot be taken in the summer term.
- The student must demonstrate college readiness and personal responsibility.
- The following types of college courses do not qualify: physical education, theology, hobbies, crafts, or recreational interests.
- Eligible students may elect no more than ten dual enrollment courses while in high school.
- International students with an active visa cannot participate.
- If a course is not completed or if a student receives a failing grade, the student must repay all expenses to the Michigan Department of Treasury.

Participation in dual enrollment does not exempt a student from earning all of the required credits for graduation and electing the required number of on-campus classes as specified in the school handbook. College courses must be taken after school or on the weekend. The regular school-day schedule will not be modified to accommodate dual enrollment classes.

Because of the restrictions and deadlines involved, it is very important that students who would like to take advantage of dual enrollment opportunities be in contact with the counselor about the program. If you have questions regarding participation, please contact the counseling department as soon as possible to discuss eligibility.

LANGUAGE ARTS

The Language Arts Department offers two levels of study: General and Honors. These courses focus on a traditional academic approach to English in order to prepare a student for college. The Department recommends, however, that the above average student select the Honors program. College admissions committees tend to evaluate the taking of Honors courses more favorably for admission and scholarships. Ability and/or teacher recommendation may be required for course choice acceptance.

Curriculum Overview

	General	Honors
Grade 9	English 9	Honors English 9
Grade 10	English 10	Honors Composition 10 Honors American Literature
Grade 11	Composition 11 American Literature	AP English Language and Composition
Grade 12	Research Techniques British Literature	AP English Literature and Composition

Course Descriptions

English 9 (Year)

Grade level: 9

Students will review grammar, develop further understanding of sentence structures, and begin learning development for formal paragraph writing. Students will also be introduced to a variety of literary works, including short stories, poetry, drama, and the novel. Students will study basic literary terms such as plot, setting, characterization, and theme. Reading comprehension skills, writing development skills, and verbal communication skills will be stressed.

Honors English 9 (Year)

Grade Level: 9

Prerequisite: Qualifying High School Placement Test score

This course will review and further develop grammar and writing skills, as well as provide instruction on the writing of the expository essay. An appreciation for literature and a development of reading skills will be promoted as students pursue an analytical and interpretive approach to a broad variety of global literature.

English 10 (Year)

Grade Level: 10

Prerequisite: English 9

The course will review and further develop grammar and formal paragraphing skills, as well as introduce the expository essay. Students will also continue to study the types of literature introduced in English 9. The elements of nonfiction and the epic will be introduced. Writing about literature, as well as discussing the selections, will be stressed.

Honors Composition 10 (First Semester)*Grade Level:* 10*Prerequisite:* Honors English 9

Students in this course will explore, analyze, and apply advanced techniques of essay writing.

Honors American Literature (Second Semester)*Grade Level:* 10*Prerequisite:* Honors English 9, Honors Composition 10

As students learn to understand the significance of all forms of literature in the emerging American nation, they will develop their analytical and interpretive skills. Writing and speaking about literature will be stressed.

Composition 11 (First Semester)*Grade Level:* 11*Prerequisite:* English 10

This course provides instruction for effective essay writing: forming a legitimate opinion, defending it with logical detail, and writing about it with style.

American Literature (Second Semester)*Grade Level:* 11*Prerequisite:* English 10

Students will survey the literary periods and the short stories, novels, essays, poetry, and drama of American authors. Writing and speaking about the literature will be stressed.

British Literature (Semester)*Grade Level:* 12*Prerequisite:* Composition 11, American Literature

Literature of all genres from around the world will be read, interpreted, and analyzed by students in this course. The history and cultures of the countries from which the literature comes will also be studied as an integral part of understanding the authors' messages, themes, points of view, and characterizations. Students will respond to what they read in both written and verbal form.

Research Techniques (Semester)*Grade Level:* 12*Prerequisite:* Composition 11

This course is designed to teach the college-bound student the necessary skills for writing research papers at the collegiate level. Special attention will be paid to note taking, outlining, developing a thesis, and revising a paper. Methods of research and citation will be taught as students organize data into a coherent, properly presented research paper.

AP English Language and Composition (AP) (Year)

Grade Level: 11

Prerequisite: Honors Composition 10, Honors American Literature

Fee: \$94.00 (AP Test Fee)

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

AP English Literature and Composition (AP) (Year)

Grade Level: 12

Prerequisite: Signature of Ms. Sovel

Fee: \$94.00 (AP Test Fee)

AP English is offered to seniors of superior ability in English desiring a challenge. This course is designed to prepare students for college level skills in literary analysis and expository writing. Students will study critical standards for evaluating and appreciating any literary work. After reading selected fiction, drama, and poetry, students will compose critical essays about each work. Students passing the AP Exam may earn college credit. Students will be required to do extensive reading and writing during the summer before senior year.

Creative Writing (Semester)

This course does not apply toward the required Language Arts credits.

Grade Level: 10-12

Prerequisite: Signature of Mr. Lopez

This course is designed for the student who wants an opportunity to explore his/her creative potential in writing. Traditional classroom structure will give way to individualized instruction, and students will be involved in lessons on selected genres and writers to help students explore and understand style and techniques. At least one publication will be produced during the semester.

The Graphic Novel (Semester)

This course does not apply toward the required Language Arts credits.

Grade Level: 11-12

Prerequisite: Signature of Mr. Lopez

This course will introduce students to the diverse body of literature known as *graphic novels*. While emphasis will be placed on works that are specifically considered graphic novels, it may also include the study of other comics-strips and books that have significantly contributed to the development of the form. Students can expect to be exposed not only to a wide range of graphic novel types, such as autobiography, journalism, history, humor, dramatic fiction, manga, and superheroes, but also to a deeper understanding of the methods of telling stories that are unique to comics.

Public Speaking (Semester)

Grade Level: 10-12

This is an introductory course to the skills and techniques necessary for acquiring self-confidence and poise in speaking articulately and effectively, specifically in public situations.

THEOLOGY

Requirements

Four years of Theology are required for graduation. The freshman, sophomore, and junior curricula are required as listed. Freshman, sophomore, and junior retreats are mandatory. Retreat fees are included in the summer billing.

Course Descriptions

Freshman Theology (Year)

Grade Level: 9

The first semester will cover The Revelation of Jesus Christ in Scripture. It will focus on a general knowledge and appreciation of Sacred Scripture. Students will encounter the Living Word of God, Jesus Christ. The second semester will help students answer the question "Who is Jesus Christ?" by focusing on Jesus' earthly life, His Mission and Ministry.

Sophomore Theology (Year)

Grade Level: 10

First semester - *Jesus Christ: Source of our Salvation*. Students will explore the Paschal Mystery in greater depth, focusing on the life, passion, death, and Resurrection of Jesus Christ.

Second semester - *The Church: Our Story* explores the interrelationship of the various components of the Catholic Church. This course provides insights as to how the Church has come to its contemporary expression.

In addition, students will be taught Theology of the Body.

Junior Theology (Year)

Grade Level: 11

Junior Theology includes a first semester study of the Seven Sacraments of the Catholic Church and a second semester that deals with Christian values. Students will be led through the processes of conscience formation and moral decision-making. Students will be challenged to assume responsibility for their own growth and faithfulness to the persons they are called to be.

Senior Theology (Year)

Grade Level: 12

Senior Theology includes electives from the following areas of study, two of which are selected by the Junior class prior to their Senior year:

Sacred Scripture - an examination and reflection upon the people, stories, faith challenges, and triumphs held with the Hebrew Scriptures. Students will be introduced to the literary forms used in Scripture to help further develop their understanding of its message.

History of the Catholic Church - will supply the students with a general knowledge of the Church's history from apostolic times to the present. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by Him throughout history through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today and, as such, has both divine and human elements.

Living as a Disciple of Jesus Christ in Society - introduces the seven themes of Catholic Social Teaching. Students will be challenged to put their faith into action by responding to the needs of those whose rights are being violated in our world today.

Responding to the Call of Jesus Christ - challenges students to examine their calling as a disciple of Jesus Christ, specifically single life, married life, religious life, and ordained life from the perspective of our faith.

Ecumenical and Interreligious Issues - Building on the foundational truth that Jesus Christ established the Catholic Church and entrusted to her the fullness of God's Revelation, the purpose of this course is to help the students understand the manner in which the Catholic Church relates to non-Catholic Christians as well as to other religions of the world. It is also intended to help students to recognize the ways in which other systems of belief and practice differ from the Catholic faith.

A \$30.00 charge will be added to course fees in years when this course is selected.

MATHEMATICS

Course Placement

Course requests will be reviewed and approved by the student's current teacher at the end of each school year. While receiving a *D* may give a student credit for a particular course, it does not indicate that the student has the necessary skills to take the follow-up course. Summer school will be recommended before the student takes the following course. Consideration is given to students with a full year of Algebra before attending Gabriel Richard.

AP Calculus

If a student intends to take AP Calculus in their senior year, they must either:

- Have had a full year of Algebra 1 in the eighth grade
- Take two math classes in their sophomore year: Honors Algebra 2 and Honors Geometry

Curriculum Overview

	General	Honors
Grade 9	Algebra 1	Honors Algebra 1 Honors Geometry
Grade 10	Geometry	Honors Geometry Honors Algebra 2
Grade 11	Algebra 2	Honors Algebra 2 Honors Precalculus
Grade 12 (Recommended)	Precalculus	Honors Precalculus AP Calculus AP Statistics
(Alternate)	Probability & Statistics Financial Literacy Accounting	Probability & Statistics Financial Literacy Accounting

All math courses beyond Grade 9 require the signature of the student's current math teacher.

Course Descriptions

Algebra 1 (Year)

Grade Level: 9

A first year Algebra course will cover the basic operations involving real numbers, polynomials, special products and factoring, linear equations and inequalities, graphing on the number line and the Cartesian plane, algebraic word problems, absolute value concepts and the laws of exponents. It is a prerequisite for anyone who desires further study in mathematics, chemistry, or physics.

Honors Algebra 1 (Year)

Grade Level: 9

Prerequisite: Qualifying High School Placement Test score

This is an advanced course in Algebra, requiring a mature attitude toward academic study. In addition to the topics of regular Algebra, this course will provide students with the opportunity to study additional topics such as irrational numbers and solving systems of equations in three variables. The course is designed to develop the student's computation skills, critical thinking, and problem solving abilities.

Geometry (Year)

Grade Level: 10

This course will cover the concepts of plane Euclidean geometry including points, lines, planes, congruence, and similarity of figures, special right triangles, circle and arcs, and some 3-dimensional geometry. Critical analysis and logical thinking will be stressed.

Honors Geometry (Year)

Grade Level: 10

Prerequisite: Honors Algebra 1 / Teacher Recommendation

An accelerated course similar to Geometry, but with an emphasis on proofs, analytical thinking, and application.

Algebra 2 (Year)

Grade Level: 11

Algebra 2 is a continued study of Algebra concepts. Emphasis will be placed upon the development of Algebra skills through the study of linear, quadratic, and polynomial equations and inequalities, relations, functions, radicals, imaginary/complex numbers and trigonometry, including functions, graphs, identities, and equations.

Honors Algebra 2 (Year)

Grade Level: 10

Prerequisite: Honors Algebra 1 / Teacher Recommendation

An accelerated course similar to Algebra 2, but with an emphasis on applications.

Precalculus (Year)

Grade Level: 11-12

Prerequisite: C in Algebra 2 and Geometry

Requirement: Texas Instruments Graphing Calculator

This course will focus on the development of critical analysis and mature problem solving skills through the continued study of polynomial, exponential, and logarithmic functions. It will also include an in depth study of conic sections, and the basic concepts of calculus including limits, sequences and series will be introduced. Emphasis will be on the proper application of mathematical theory to problem solving.

Honors Precalculus (Year)*Grade Level:* 11-12*Prerequisite:* Honors Geometry and Honors Algebra 2 / Teacher Recommendation*Requirement:* Texas Instruments Graphing Calculator

This course is designed as preparation for a college level course in calculus. Topics will include functions and their graphs; one and two variable inequalities; systems of equations and inequalities; polynomial functions; complex numbers; exponential, logarithmic and circular functions; conic sections; and sequences and series. The emphasis will be on the proper application of mathematical theory to problem solving.

AP Calculus (Year)*Grade Level:* 12*Prerequisite:* C in Honors Precalculus / Teacher Recommendation*Requirement:* Graphing Calculator*Fee:* \$94.00 (AP Test Fee)

This course is a standard college course in differential and integral calculus. The course will cover limits, differentiation and integration and their applications, and the calculus of the common transcendental functions.

AP Statistics (Year)*Grade Level:* 11-12*Prerequisite:* C in (Hon/Gen)Algebra 2 or concurrent enrollment in Honors Algebra 2*Requirement:* Graphing Calculator - TI-84 strongly recommended*Fee:* \$94.00 (AP Test Fee)

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

Probability and Statistics (Year)*Grade Level:* 11-12*Prerequisite:* successful completion of two years of mathematics

This course will cover one semester of probability and one semester of statistics. The course will include many real-life based projects and activities. Topics will include sample space, odds and expectations, permutations, combinations, probability, measures of central tendency, measures of dispersion, measures of position, sampling distribution, normal distribution, and z-score.

Financial Literacy (Semester)*Grade Level:* 12

The goal of this course is to acquire knowledge and skills to manage financial resources effectively for a lifetime of well-being, giving the students long term vision and planning for the future and the discipline to make those wise choices. Students will learn to manage credit and debt, save and invest with confidence, plan for college and retirement, and avoid fraud and scams. Students will learn the basics of financial literacy and banking in this course. Topics covered include: bad debt, the importance of spending plans, non-traditional financial services, being an informed consumer, buying stocks, sell strategy, mutual fund options, investing in education, planning for the future, purchasing your first home, taxes and tax planning, life insurance options, health insurance, property insurance, estate planning, and keeping money in perspective.

SCIENCE

Requirements

Three credits in science, including one year of Biology and one year of either Chemistry or Physics, are required. Four credits of science are recommended for college-bound students who anticipate a science-related major in college. These majors include science, biology, physics, chemistry, health/medical fields, engineering, and other technical fields.

Curriculum Overview

Freshmen Year

Biology

Honors Biology

Sophomore Year

Chemistry

Honors Chemistry

Junior / Senior Year

AP Biology

AP Chemistry

AP Physics

Honors Anatomy and Physiology

Physics

Zoology

Earth Science - Geology

Earth Science - Astronomy/Meteorology

Plant Biology

Plants, People, and Culture

Forensic Science

Introduction to Athletic Training

*The College Board requires all AP Science courses to include a minimum of one lab hour per week outside of regular school hours.

Course Descriptions

Biology (Year)

Grade Level: 9

Fee: \$20.00

Biology is a course designed to expand the students' knowledge of living organisms. This course will include a comprehensive study of contemporary biology, covering biochemistry, cells, genetics, evolution, and classification. A variety of teaching methods will be used including labs, group work, individual assignments and projects, and class discussions.

Honors Biology (Year)

Grade Level: 9

Fee: \$20.00

Prerequisite: Qualifying High School Placement Test score

This course is designed for the highly motivated science student. This course will focus on major life processes including biochemistry, cell biology, traditional and modern genetics, genetic engineering, evolution, adaptation, and classification. This class is an overview of living organisms utilizing a three-domain classification system. The biology of organisms in their environments will be included in the course. In addition to the above topics, the honor student will complete supplemental and long-range assignments to expand research and laboratory skills.

Chemistry (Year)

Grade Level: 10

Prerequisite: Biology or Honors Biology

Fee: \$25.00

Chemistry is a study of matter and its changing composition. It includes a study of atomic structure, interactions of matter, stoichiometry, states of matter, chemical equilibrium, acids and bases, redox chemistry, kinetics and thermodynamics.

Honors Chemistry (Year)

Grade Level: 10

Prerequisite: B+ in Algebra 1 or B in Algebra 2, B in Honors Biology or A in Biology

Fee: \$25.00

Topics will include those studied in Chemistry. An emphasis will be placed on advanced mathematical calculations. Quantitative and qualitative laboratory techniques, as well as organic and nuclear chemistry will be studied.

Physics (Year)

Grade Level: 11-12

Prerequisite: Algebra 1, Geometry

Fee: \$25.00

This course offers an introduction to physical laws and principles and the interrelationship between matter and energy. Topics will include mechanics, states of matter, waves and light, electricity and magnetism, and modern physics.

Zoology (Year)*Grade Level: 11-12**Prerequisite: C in Biology**Fee: \$20.00*

This course covers the animal kingdom from invertebrates such as sponges to complex vertebrates such as primates. Focus will be on the structure and behaviors of each group. Students will use memorization and Latin root words to learn the different classifications of the animal kingdom. Class will include factual content and laboratory activities, including some dissection.

Honors Human Anatomy and Physiology (Year)*Grade Level: 11-12**Prerequisite: B in Biology or B- in Honors Biology, C+ in Chemistry (concurrent)**Signature of Student's Biology Teacher**Fee: \$25.00*

This course is an advanced Biology course, which aims to familiarize students with the structure and function of the human body through lecture and lab work, especially the dissection of organ systems. It is recommended for students aspiring to a health career requiring at least four years of college preparation. This course requires strong memorization skills.

AP Biology (Year)*Grade Level: 11-12**Prerequisite: B+ in Biology or B in Honors Biology, B in Chemistry (concurrent)**Signature of Student's Biology Teacher**Fee: \$119.00, includes \$94.00 AP Test Fee**Offered 2019-2020; Not offered 2020-2021*

This course is designed for the advanced science student who wants to place out of introductory Biology courses in college. This course is an in-depth study of the major biological topics. 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. Approximately 50% of class time will be spent on organisms and populations, 25% on genetics and evolution and 25% on molecules and cells. Students will attend labs 1 hour a week outside of the regular class periods, either before or after school. Heavy emphasis will be placed on laboratory activities.

AP Chemistry (Year)*Grade Level: 11-12**Prerequisite: A- in Chemistry or B+ in Honors Chemistry, B+ in Algebra 1, Signature of Mrs. Loria**Fee: \$119.00, includes \$94.00 AP Test Fee**Not offered 2019-2020; Offered 2020-2021*

This course is an in-depth study of general chemistry designed for advanced science students who want to place out of their introductory Chemistry course in college. This course will be taught at a college level and will move at a rapid pace. Both, quantitative and qualitative laboratory techniques will be covered. A strong Math background is required for this course. Students will attend labs one hour a week outside of regular class periods.

AP Physics (Year)*Grade Level:* 11-12*Prerequisite:* B in Algebra 1 and Geometry, Algebra 2 (concurrent), Signature of Mrs. Loria*Fee:* \$119.00, includes \$94.00 AP Test Fee*Offered 2019-2020; Not offered 2020-2021*

This course is equivalent to a first-semester college course in algebra-based physics. The course will cover Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. No prior course work in physics is necessary for students to enroll in AP Physics. Although the AP Physics course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics course.

Earth Science - Geology (Semester)*Grade level:* 11-12*Prerequisite:* Biology*Fee:* \$15.00

This lab-based course focuses on the understanding of physical surface features, structure, and dynamics of the earth, including geology related natural hazards and the impact on people. Topics include mineralogy and rock formation, plate tectonics, volcanoes, earthquakes, and landscape evolution.

Earth Science - Astronomy/Meteorology (Semester)*Grade level:* 11-12*Prerequisite:* Biology*Fee:* \$15.00

This course introduces the concepts of modern astronomy and meteorology. Astronomy topics include the origin and history of the universe, stellar distances, star formation, and motion of celestial objects including analysis of Kepler's laws of planetary motion. Meteorology topics include structure and function of the atmosphere and its effect on weather and climate.

Plant Biology (Semester)*Grade level:* 11-12*Prerequisite:* Biology*Fee:* \$20.00

A general lecture and laboratory course emphasizes the basic principles of plant biology, with a survey of the plant kingdom and the relationships between plant groups. Additional focus is placed on the anatomy, physiology, and evolution of gymnosperms and angiosperms, including significant evolutionary trends in adaptation, reproduction, morphology, and life histories of the plant world.

Plants, People, and Culture (Semester)*Grade level:* 11-12*Prerequisite:* Biology*Fee:* \$20.00

A lecture and laboratory course focuses on the growth, function, and evolution of plants, specifically natural adaptations to the environment and artificial selection by humans. Plant studies in cultural contexts focus on the development of cultures, particularly the cultivars of food, fuel, fiber, and medicinal plants. Hands-on experience with plant identification, physiology, ecology, and field survey leads to directed research of experimental methods and theory. Special emphasis highlights plant influences on global culture, specifically aspects of agriculture, conservation, domestication, human migration, religion, and technology.

Forensic Science (Semester)

Grade level: 11-12

Prerequisite: Biology, Chemistry

Fee: \$15.00

This introductory course of crime scene investigations incorporates theories and techniques used in real-world investigations. Guest speakers and hands on activities are an integral part of the course. Staged crime scenes will be involved in the assessment of the course.

Intro to Athletic Training (Semester)

Grade level: 11-12

Prerequisite: Biology, Chemistry

Fee: \$10.00

This course is an introduction to the field of athletic training with an emphasis on the student athletic trainer's role. The class will teach protective taping and wrapping, basic anatomy, basics of tissue injury, and prevention and treatment of various injuries. Students will gain first aid, CPR, and AED certification.

SOCIAL STUDIES

Curriculum Overview

Students may begin taking Social Studies courses in either their freshmen or sophomore year. The State of Michigan requires that students earn one credit each of world history and US history and one-half credit each of US government and economics. Electives may be taken concurrently with required courses. Students planning to take honors or AP courses should consult with their current social studies teacher and honors/AP course instructor (see signature requirements in course descriptions) before making course selections.

Recommended Course Sequence

General	Honors
Grade 9/10 World History and Geography	Honors World History and Geography
Grade 10/11 US History	AP Human Geography AP American Government
Grade 11/12 American Government Economics	AP American Government AP US History Economics

Course Descriptions

World History and Geography (Year)

Grade Level: 9-10

This course focuses on the period of history from ancient Greece and Rome to the twentieth century. Units include Ancient Greece and Rome, India, China, and the early Americans, Renaissance and Reformation, the dominance of Europe, and the beginning of a global society.

Honors World History and Geography (Year)

Grade Level: 9-10

Prerequisite: 9th Graders: qualifying High School Placement Test score
10th Graders: 3.0 GPA

This course covers Our Classical Heritage, The Middle Ages, The World Beyond Europe, and the dominance of Europe. Students will be expected to read extensively, take notes, participate in class activities, and complete unit projects.

United States History (Year)

Grade Level: 10-11

This class focuses on 1870 to the present.

American Government (Semester)*Grade Level:* 11-12*Prerequisite:* completed or enrolled in US History

This course surveys the organization and activities of the federal government. Topics such as lobbying, political humor, presidential powers, and landmark Supreme Court cases will be studied.

Economics (Semester)*Grade Level:* 11-12

This course covers topics such as the American economy and consumerism, as well as microeconomics and macroeconomics.

AP American Government (Year)*Grade Level:* 11-12*Prerequisite:* 3.3 GPA, completed or enrolled in US History, signature of Ms. Sovel*Fee:* \$94.00 (AP Test Fee)

This course gives students an analytical perspective on government and politics in the United States. The course includes both the study of general concepts used to interpret US politics and the analysis of specific examples. It requires a familiarity with the various institutions, groups, beliefs, and ideas that constitute US politics. Topics covered will include Constitutional underpinnings of the US Government, Political Beliefs and Behaviors, Political Parties, Interest Groups and Mass Media, Public Policy and Civil Rights and Civil Liberties. AP History is recommended before taking this course. College credit may be earned by passing the AP Exam at the end of the year.

AP European History (Year)*Grade Level:* 11-12*Prerequisite:* 3.3 GPA, signature of Mr. Lopez*Fee:* \$94.00 (AP Test Fee)*Offered 2019-2020; Not offered 2020-2021*

This course is a college level survey class where students are expected to demonstrate knowledge of basic chronology and of major events and trends from approximately 1450 to the present. The goals of this course are “to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence, and (c) an ability to analyze and to express historical understanding in writing.” Students will be expected to participate in discussion and to give evidence of their grasp of material through multiple-choice tests and through essays. College credit may be earned by passing the AP Exam at the end of the year.

AP Human Geography (Year)*Grade Level:* 10-12*Prerequisite:* 3.3 GPA, signature of past or current Social Studies teacher*Fee:* \$94.00 (AP Test Fee)

AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. Topics covered in this yearlong class will include The Nature and Perspective of Geography; Cultural Patterns and Processes; Population and Migration; Political Organization; Agriculture and Rural Land Use; Industrialization and Economic Development; and Cities and Urban Land Use. The class format includes lecture, discussion, hands-on activities, and independent research into specific topics. College credit may be earned by passing the AP Exam at the end of the year.

AP Psychology (Year)*Grade Level:* 11-12*Prerequisite:* 3.3 GPA, signature of Ms. Panganis*Fee:* \$94.00 (AP Test Fee)

This course covers the history and methods of psychology, sensation, and perception, states of consciousness, learning, cognition, personality, abnormal behavior, and social psychology. The class will involve lecture and discussion, essay writing and projects. College credit may be earned by passing the AP Exam at the end of the year.

AP US History (Year)*Grade Level:* 11-12*Prerequisite:* 3.3 GPA, signature of Ms. Sovel*Fee:* \$94.00 (AP Test Fee)

This college level survey class is designed for the student with superior ability and interest in United States History. This class will stress reading and researching historical material analytically and critically with an emphasis on primary sources. The class format includes lectures, small group discussions, and oral and written reports. It is expected that students in this course are able to convey their grasp of material through multiple choice tests and essays. College credit may be earned by passing the AP Exam at the end of the year.

US-The War Years (Semester)

This course does not satisfy the US History requirement.

Grade Level: 11-12

This course offers an in-depth study of US foreign relations, military strategy, field experience, and domestic reaction to World War I through the Cold War. Primary sources will be utilized.

The Holocaust (Semester)*Grade Level:* 11-12*Prerequisite:* Completion of both World History and American History requirements

This course provides an in-depth examination of the Holocaust. Topics include the history of European Jewry, social and political factors leading to the Holocaust, the logistics behind mass extermination, and consequences of the Holocaust.

Current Issues in Social Studies (Semester)*Grade Level:* 11-12*Prerequisite:* Completion of United States History

This class will give us the opportunity to examine issues in the world around us on a local, state, national, and global level. Investigations will allow students to think more deeply about the significance of current events, leading to an understanding from a historical perspective, while enabling students to make connections to larger issues and trends. Students will use periodicals (newspapers & magazines), documentaries, film studies, and the internet to explore today's world. The class will be a forum for discussion and an open exchange of ideas. The objectives of this course are: to make the connection between current events and history, to enhance the student's understanding of world events, to encourage students to be informed citizens, and to help them to make intelligent decisions as they take their place in the panorama of history.

History in Film (Semester)

This course does not satisfy the US History requirement.

Grade Level: 11-12

This course involves students watching movies, television shows, and other film medium. Activities include analyzing the history shown in the films, examining the historical context of the media, and assessing the historical accuracy of the films.

Psychology (Semester)

Grade Level: 11-12

This one semester course covers units such as human development, personality, psychological disorders, therapy, and social behavior.

Sociology (Semester)

Grade Level: 11-12

This semester course deals with the complex social issues of our time. Topics discussed will include the changing family structure, cultural deviance and juvenile delinquency, social inequalities, religion and the future.

WORLD LANGUAGES

American Sign Language 1 (Year)

Grade Level: 9-12

Students will learn the basics of American Sign Language vocabulary, structure, syntax, and grammar. This class will also introduce students to cultural aspects of the deaf community.

American Sign Language 2 (Year)

Grade Level: 10-12

Prerequisite: Signature of Mr. Parmentier

Students will expand upon previously learned American Sign Language vocabulary, structure, syntax, and grammar. This class will also incorporate aspects of deaf culture and community.

French 1 (Year)

Grade Level: 9-12*

Students will learn the basics of speaking French. The class will consist of everyday conversation, careful listening and pronouncing, reading and writing exercises, and a study of French-speaking people.

*Freshmen may take French 1 only by counselor recommendation if planning to take four years of French.

French 2 (Year)

Grade Level: 10-12

Students will continue their study of the basic skills of speaking, listening, reading, and writing. More French customs and history will be learned.

French 3 (Year)

Grade Level: 10-12

Prerequisite: C in French 2, Signature of Mr. Civil

The third year course emphasizes oral skills and the grammatical concepts. More information will be given about the customs, culture, and history of France.

French 4 (Year)

Grade Level: 11-12

Prerequisite: C in French 3, Signature of Mr. Civil

Students will read and discuss literary works, news articles, and other selected materials, write various compositions, and learn more of French history and art. They will review and perfect grammar and learn more sophisticated ways of writing and speaking French.

Spanish Communication & Culture (Year)*Grade Level:* 10-11*Prerequisite:* Counselor or Teacher Recommendation

Students review parts of speech in English as well as parts of a sentence before learning basic Spanish grammar. They also learn strategies that could be helpful for learning Spanish vocabulary. Some of the vocabulary themes include introductions, talking about family and friends, discussing likes and dislikes, and other meaningful topics. In addition, students discuss different elements of Hispanic culture. A multitude of communicative language activities will be used.

Spanish 1 (Year)*Grade Level:* 9-12*

Students will learn the basics of speaking the Spanish language. The class will consist of everyday conversation, careful listening and pronouncing, reading and writing exercises, and a study of Spanish-speaking people.

*Freshmen may take Spanish 1 only by scheduler recommendation if planning to take four years of Spanish.

Spanish 2 (Year)*Grade Level:* 9-12**Prerequisite:* Spanish 1

Building on the basics of a new language learned in Spanish 1, students will begin usage in dialogues, conversations, reading, and writing. They will expand their grasp of grammatical and cultural concepts. This will be enriched by the study of the customs, celebrations, and history of Spanish-speaking people.

*Freshmen may take Spanish 2 only by counselor recommendation with previous Spanish instruction and a passing score on a Spanish proficiency exam.

Honors Spanish 3 (Year)*Grade Level:* 10-12*Prerequisite:* C in Spanish 2, Signature of Mrs. McGraw

Continued refinement of Spanish grammar and mechanics will prepare students to speak more fluently. The concentration will be on developing awareness of the broad spectrum of Spanish influence and the need for articulate speakers in the world market.

Honors Spanish 4 (Year)*Grade Level:* 11-12*Prerequisite:* C in Honors Spanish 3, Signature of Mrs. McGraw

The aim of this course is for the student to excel in the four skills of reading, writing, speaking, and understanding Spanish. The possibility of advanced placement will be available to above average language achievers who commit themselves to excellence and exhibit skill through conversation, composition, and study of classical writers of Spanish.

FINE ARTS

ART

Class fees cover general class supplies such as paint, ink, pastels, etc., which are dispensed to students on an as needed basis.

Clayworks (Semester)

Grade Level: 10-12

Fee: \$50.00

This course combines pottery and sculpture techniques using various hand building and finishing methods including the use of various glazes. Each student will experience the art of throwing on the potter's wheel. Instruction in the use of the kiln will be presented.

Clayworks 2 (Semester)

Grade Level: 10-12

Prerequisite: Clayworks

Fee: \$50.00

This course further explores clay and pottery techniques for the skilled student. Wheel throwing will be incorporated into new projects. Students who desire to take AP 3D are encouraged to take this course.

Clayworks 3 (Semester)

Grade Level: 12

Prerequisite: Clayworks 2, Signature of Ms. Fedor

Fee: \$50.00

This course further explores clay and pottery techniques for the skilled student. A theme will be chosen for the semester.

Clayworks 4 (Semester)

Grade Level: 12

Prerequisite: Clayworks 3, Signature of Ms. Fedor

Fee: \$50.00

This course further explores clay and pottery techniques for the skilled student. A theme will be chosen for the semester.

Advanced Drawing (Semester)

Grade Level: 10-12

Fee: \$40.00

This course is designed for the serious art student. A strong emphasis in traditional sketching will be explored. Students taking this course will sketch from daily observation in class. A variety of wet and dry media will be used to enhance the drawing skills of the student. This course will help any student seriously thinking of creating an AP drawing portfolio.

Acrylic Painting (Semester)

Grade Level: 10-12

Fee: \$50.00

This course is an introduction to acrylic painting. Acrylic paint will be used as watercolor, and various other consistencies will be presented to help discover the versatility of the medium. Students will be encouraged to develop their own style of painting.

Photography 1 (Semester)*Grade Level:* 10-12*Fee:* \$30.00*Requirement:* Digital Camera

This course explores a variety of digital photography techniques and processes including portraits, lighting, filters, color and B/W photography, resolution, *Adobe Photoshop* and mixed media. The history of photography, artists, and portfolio presentation will be covered.

Photography 2-Digital Art/Graphic Design (Semester)*Grade Level:* 10-12*Prerequisites:* Photography*Fee:* \$30.00*Requirement:* Digital Camera

This one semester course covers *Adobe Photoshop* in depth with the emphasis of a personal style for each student/photographer. The student will work on a series that will be his/her final project. Graphic design projects will also be incorporated into the art the student will create.

AP Studio Art (Year)*Grade Level:* 11-12*Prerequisite:* Photo 1 or portfolio of previous art, Signature of Ms. Fedor*Fee:* \$144.00, includes \$94.00 AP Test Fee

This course is designed for students pursuing a career in art. AP Studio Art is offered to seniors of superior ability in drawing desiring a challenge. Students can enter in the area of drawing or general portfolio. The quantity of work is extensive. The Drawing Portfolio requires 5 works in the area of quality, up to 12 slides in the area of concentration, and 12 slides in the area of breadth. Drawing ability and imagination are the main criteria. Students taking the College Board AP Test (Portfolio Evaluation) may earn college credit. A weekly critique will take place for students to view and comment on art created for this class. Students will be required to submit ideas for their theme before the end of their Junior year for approval. Students are encouraged to begin working on their portfolios during the summer break.

Art Aide (Semester)*Grade Level:* 12*Prerequisite:* Signature of Ms. Fedor*Grade:* Pass/Fail

Student will assist in organizing art labs, preparing materials, and matting pictures. Student will assist in labeling pictures and preparing artwork for art shows and Open House. Student may also assist Drawing 1 and Art Exploration students with assignments.

Yearbook (Year)

This course does not fulfill the required Fine Arts credit.

Grade Level: 11-12*Prerequisite:* Signature of Ms. Fedor

Yearbook publishes the school yearbook, Burgundy. This is a class for students who like to be involved in different aspects of school and student life. Students will have many opportunities for independent work and individual expression. The obligations for the student are weekly writing and photography assignments, layout designs, coverage of GR events after school, and participation in organizing photographs. Students must understand they are required to attend after school activities to photograph for the yearbook. Students will learn and develop knowledge of journalism, publishing, specialized computer software, and photography. The student must have consistent access to a regular digital camera.

Advanced Yearbook Editor (Year)

This course does not fulfill the required Fine Arts credit.

Grade Level: 12

Prerequisite: Signature of Ms. Fedor

This is a class for students who desire to take on a leadership role in Yearbook as a student design and photography editor. They will be responsible for reviewing concept page designs, collecting and taking photographs, and organizing pages for the yearbook. Editors will be asked to attend school functions and games on a weekly basis.

MUSIC

Beginning Band (Year)

Grade Level: 9-12

Open to all students who have an interest in learning to play a musical instrument, this course requires no previous learning experience on a musical instrument. This course is designed to present the fundamentals of instrumental music to the student. The course material includes information on the proper care and handling of equipment used in band as well as the mechanics of good tone production on a chosen instrument. Each student is required by the end of the term to read music and pass an elementary proficiency examination.

Symphonic Band (Year)

Grade Level: 9-12

Prerequisite: Beginning Band, any previous band experience, or passed audition held by the director.

Requirement: Attendance at all scheduled performances and rehearsals including performances at football and basketball games

Varsity Band is a performance ensemble. Emphasis is placed on the reading of concert performance music to expose the student to various musical styles. Students will be expected to perform in the proper musical style. The most important part of Varsity Band is to teach students self-discipline and how to work together as one unit to create a positive and successful musical experience.

Glee (Year)

Grade Level: 9-12

Requirement: Attendance at all scheduled performances and rehearsals

This class is for all students who have an interest in singing. The goal for this class is to be able to sing in four-part harmony. Students will be tested as to what section they will be singing in (Soprano, Alto, Tenor, and Bass). Students will be singing a wide range of music dating from the 1600's to the present.

BUSINESS

Accounting (Semester)

Grade Level: 10-12

Accounting is a skill-level course that is of value to students interested in business, marketing, and management. This course describes various types of business situations and offers a foundation in accounting principles, such as ledgers, checking accounts, and financial statements. Students develop understanding of transaction processing for service and merchandising business, including payroll, payroll taxes, partnerships, and banking procedures.

Business (Semester)

Grade Level: 10-12

This course exposes students to the skills needed for understanding of general business, economics, entrepreneurship, business communications, business ethics, the government's role in business, marketing, and business finance. Overall, the course gives students a broad exposure to business operations and a solid background for additional business courses.

Business Law (Semester)

Grade Level: 10-12

This course is designed to provide students with an overview of our legal system, including statutes and regulations that affect businesses, families, and individuals in a variety of ways. Knowledge of business law is particularly useful because all students eventually assume the role of citizen, worker, and consumer in society. Students will learn to distinguish unethical behavior from illegal behavior and to understand the rising importance of social responsibility as an aspect of corporations and organizations in a global society.

Entrepreneurship (Semester)

Grade Level: 10-12

Prerequisite: Marketing

Entrepreneurship is designed for students who are interested in entrepreneurship and small business management. In this course, students will study the role of entrepreneurs in our free enterprise system and acquire knowledge and develop the skills needed to effectively organize, develop, create, and manage their own business. The culminating project is to develop a business plan for a new business operation of each student's choice. This plan will include a description of the business, location, products and services, market survey and analysis, market strategies, organizational structure, legal issues, sales projections, and financial plans.

Marketing (Semester)

Grade Level: 10-12

Students learn what it takes to market a product or service in today's fast-paced global business environment. They learn the fundamentals of marketing using real-world business examples reflective of buyer behavior, marketing research principles, promotional strategies, demand analysis, distribution, financing, pricing, and product management.

COMPUTER SCIENCE

Technology Literacy (Year)

Grade Level: 9, Transfer Students

This full-year course develops technology competencies that prepare students for high school, college readiness, and employability. Students experience comprehensive hands-on exposure to computer technology, electronic communications, collaboration, and critical thinking skills. Areas of instruction include Microsoft Office Suite and Google Apps, information literacy, online interactive tools, keyboarding, multimedia, and the exploration of emerging technologies. Through this course, students will also develop an understanding of social, ethical, and human issues related to technology. *This is a required course for freshmen and fulfills the State of Michigan ½-credit Online Learning Component requirement.*

Exploring Computer Science (Semester)

Grade Level: 10-12

Prerequisite: Technology Literacy

Students will be introduced to computer programming using Alice, a 3-D programming language that makes it easy to produce animations. It uses 3D graphics and a drag-and-drop interface to facilitate a more engaging, less frustrating first programming experience. Students will be introduced to variables, functions, strings, arrays, decision structures (if/else), repetition structures (loops) and object oriented, event driven concepts. Alice allows students to get immediate feedback on their work. They see right away how their programs run, and gain understanding of the relationship between programming statements and the behavior of objects in their animation. The graphic tiles make it easier for beginners to learn the basics of computer programming by eliminating the need to know and type out the actual programming statements.

Programming I (Semester)

Grade Level: 10-12

Prerequisite: Required: Technology Literacy

Recommended: Exploring Computer Science

Programming I introduces students to the Python programming language. This class allows students to continue to develop the programming and problem solving skills that were covered in Computer Explorations using the Alice drag and drop interface. Python is an easy-to-learn and increasingly popular object-oriented language, which allows students to become comfortable with the fundamentals of programming and prepares them to transition into more complicated languages. Students gain confidence in their skills and learn to recognize the logic behind developing high-quality programs. Topics include control structures, functions, arrays, pointers, objects, and classes. Students will design, code, and test small Python programs that meet specified requirements.

Introduction to Robotics (Semester)

Grade Level: 10-12

This course provides an exploration of basic programming concepts, structure, and design. As the semester progresses, students will be introduced to robotics and work in teams to command, test, and troubleshoot a small-scale robot.

PHYSICAL EDUCATION

Freshman Physical Education/Health (Year)

Grade Level: 9

Requirement: Regulation P.E. uniform

The emphasis of development in this class will be twofold: (1) physical fitness/sports skills and (2) health. Each student's fitness level will be evaluated at the beginning of the school year and will be retested throughout the year for progress. A workout period will be provided daily to improve fitness scores. The sport portion of the class will emphasize the fundamental skills, rules, and strategies of each activity. A written test will be administered at the conclusion of each unit. Various health concepts will be included in the class.

Weight Training and Conditioning 1 (Semester)

Grade Level: 10-12

Requirement: Regulation Weight Training uniform

This course is intended to familiarize students with weight training apparatus and proper techniques with an emphasis on safety and injury prevention. The course covers basic concepts of weight training and conditioning such as lifting for muscular strength versus muscular endurance and conditioning for aerobic versus anaerobic performance, as well as seasonal training guidelines for those participating in athletics. Grading is based on the student's adherence to their training regimen and a written exam covering the basic concepts. Students considering the field of Exercise Science in college are encouraged to explore both Weight Training and Conditioning 1 & 2.

Weight Training and Conditioning 2 (Semester)

Grade Level: 10-12

Prerequisite: Weight Training 1

Requirement: Regulation Weight Training uniform

This course is intended to reinforce the basic concepts of Weight Training and Conditioning 1 and introduce students to more advanced aspects of training such as periodization, muscle hypertrophy, and interval training. Students will design a program tailored to their individual interests and stated goals. Students considering the field of Exercise Science in college are encouraged to explore both Weight Training and Conditioning 1 & 2.

Team Sports 1 (Semester)

Grade Level: 10-12

Requirement: Regulation Team Sports P.E. uniform, mouth guard for floor hockey

The emphasis of this class will be to improve upon and to develop additional sports skills. Activities that may be included are floor hockey, soccer, touch football, basketball, team handball, volleyball, and softball.

Team Sports 2 (Semester)

Grade Level: 10-12

Requirement: Regulation P.E. uniform

The emphasis of this class will be to improve and develop sports skills. Activities that may be included are: (team) handball, volleyball, softball, basketball, floor hockey, soccer, and touch football.

Inservice Team Sports (Semester)

Grade Level: 12

Prerequisite: Team sports class

Requirement: Regulation Inservice P.E. uniform

Grade: Pass/Fail

The student will act as an assistant to the teacher in the team sports classes. Students must have an extensive knowledge of the team sports rules, regulations and procedures to be covered in the class. Students must also possess the ability to assist in the development of individual skills in an advanced level class. Students will be responsible for setting up tournaments and assisting with setup of equipment.

Physical Education Practicum (Semester)

Grade Level: 12

Requirement: Regulation Inservice P.E. uniform

The student will act as an assistant to the physical education teachers in the classes. He/she will assist in the development of sports and fitness skills and will assist more in the teaching of sports skills and in developing individual fitness levels. This class is intended for students who might be considering a teaching career or want a long-term experience working in a classroom.

Inservice Weight Training (Semester)

Grade Level: 12

Prerequisite: Weight Training 2

Requirement: Regulation Inservice PE Uniform

Grade: Pass/Fail

This course will give the student the opportunity to assist in the beginning Weight Training class. Students will assist with spotting and aiding other students in selecting exercises that will best help develop that student. The student will also assist the teacher in supervision of the workouts.

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