Joseph Case High School

Swansea, Massachusetts

PROGRAM OF STUDIES
2022-2023

Brian McCann, Principal
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Mission: Joseph Case High School will provide a safe, diverse and nurturing environment to help students become lifelong learners with 21st century skills

Core Values

Communication
Authentic learning opportunities
Shared responsibility in academic excellence and integrity
Engagement of students as active learners
Higher order thinking skills
Strong 21st century knowledge base

Beliefs about Learning via 21st Century Learning Expectations: **Visions of the Graduate**

Communicators ** Collaborators ** Innovators ** Problem-Solvers ** Digital Citizens ** Global-Minded

Students engage as **digital citizens**, embracing technology to make inquiry robust and authentic
Students work independently and **collaboratively**
Students **communicate** clearly and effectively.
Students are active learners, demonstrating **innovation,** iteration and adaptability.
Students **problem-solve** through analysis, evaluation and creation
Students gain diverse, inclusive and **global-minded** perspectives that include: • responsibility • empathy • resiliency

Guidance Department

The Joseph Case High School Guidance Department consists of a team of counselors, adjustment counselors and professional staff who assist students in all phases of student life and post-secondary planning. The Guidance Department serves to assist students to better understand their academic abilities, vocational interests and post-secondary educational options.

Through the direction and guidance of the Department, students will develop realistic choices in their decision-making processes. Students receive assistance through class assemblies, small group settings, classroom visits and individual appointments with their guidance counselor.

The Guidance Department uses various strategies to help students refine their decision making skills. Some of these strategies include interest inventories, preliminary scholastic aptitude tests, financial aid workshops, MEFA Pathways, College Night, Career Awareness, the School-to-Career program, and internships.

The Guidance Department utilizes a college and career readiness program called MEFA Pathways that connects academic achievement to post-secondary education. This tool helps students plan for their life after graduating from high school. Students will be able to take a variety of assessments from career interest inventories to personality tests that will help them better understand who they are and how they can use these results to research potential careers. Each student has the ability to create an individual portfolio where information can be saved and updated as needed.

Guidance Department Philosophy

A school counseling program has the responsibility of assisting all students in achieving their fullest potential, in realizing their maximum personal/social development, and in monitoring the learning environment so that all students are respected and supported, both as learners and as human beings. School counseling is a vital part of the educational process which first helps students recognize their needs and abilities, and then assists them in designing specific plans of action to enable them to realize their full potential. When individuals gain self-realization, they are better able to contribute to society and to the growth of others in that society.

In our rapidly changing world, school counseling programs must be flexible. School counselors must be well-versed in many areas in order to help students adjust to the changes taking place in society. A comprehensive developmental school counseling program helps students acquire skills in the academic, personal/social, and career areas necessary for successfully living and working in the 21st century. As specialists in child and adolescent development, school counselors coordinate the objectives, strategies and activities of the program. In addition, school counselors serve as student advocates, helping students meet the challenges of school and preparing them for the transition into a world after high school. Aware of the patterns of achievement, and the behaviors that enhance student success, school counselors provide the leadership to identify the issues and initiate solutions. The school counselor is an active member of the educational team providing opportunities for students to develop self-understanding, self-evaluation, and self-direction. Therefore, the School Counselor works closely with other educators, parents, and the community to help students take on the challenge of life in all its facets.

Research has shown that psychological maturity is an excellent predictor of life/career satisfaction. Education for the future must include students' affective development. Students must develop the communication and socialization skills necessary for a successful, rewarding lifestyle. Every student has the right to choose from the many different lifestyles existing in our society. Information on current and future trends is needed to make important, knowledgeable decisions and choices concerning careers and lifestyles. The foundation for these decisions is established in the early years of a student's growth and development. In a comprehensive developmental school counseling program, each student is assisted in identifying problems, thinking them through, and developing confidence and trust in his/her ability to make decisions and choices based on self-awareness and knowledge of the world in which she/he lives.

Founded on the belief that individuals experience definable stages of personal growth and concomitant developmental tasks as they move from childhood through adolescence to adulthood, a comprehensive developmental school counseling program requires the cooperative efforts of the entire school community in the process of assisting every student as he/she progresses from one developmental stage to the next. It is crucial to provide all students, K-12, with a comprehensive, responsive, preventive, and proactive school counseling program suited to their developmental needs, and geared towards their realizing full potential in the areas of academic career, and personal/social development.

Selecting a Program

Advanced Placement and Honors level courses are designed for students who have clearly demonstrated significantly high achievement in previous courses within the same discipline. Some courses have combined levels where students contract with the subject teacher for honors credit. Level assignments should be determined after careful consideration of the following factors: the student's performance to date, standardized testing results, the present teacher's recommendation and post-secondary plans.

Advanced Placement Courses

Joseph Case High School offers a variety of Advanced Placement (AP) courses. These rigorous courses follow a specific curriculum to prepare students to take the AP examinations or submit portfolio assessments. Some colleges use data from these AP tests/assessments for admissions and placement purposes. All students in an AP class **must** register to take the Advanced Placement Examination/Assessment with Guidance and submit the AP assessment fee to the school by the end of term one. The AP assessment fee for the 2020-2021 school year was $94. per exam except the AP Capstone Seminar and AP Capstone Research exams were $142. each. For the 2021-2022 school year the assessment fee will be at least the same price and possibly more. The cost is determined by the College Board. Final AP weighting will only be applied to a student's GPA when the student has submitted the College Board's proscribed assessment at the culmination of the AP course. Taking the AP Examination/Assessment is not an option. AP courses may require summer reading and work.

Honors Courses

The Joseph Case High School academic honors program is for those students who wish to challenge themselves to an elevated academic standard. Students in honors courses are expected to be highly motivated. The subject matter requires an intense commitment to independent thought, inquiry and processes of creation. The honors program at the high school is for those students who excel academically and plan to work toward Advanced Placement courses. Although honors courses begin in the ninth grade, the expectations will remain consistent with those of Advanced Placement students. Honors courses may require summer reading and work.

Virtual High School Program

Joseph Case High School partners with the Virtual High School Global Consortium (VHS) to offer content-rich credit-bearing high school courses to students. The mission of VHS is to develop and deliver standards-based, student-centered online courses to expand students' educational opportunities and 21st century skills.

VHS believes that student-centered online courses can be designed and delivered to students to promote a high-quality collaborative learning environment in which student exchange and interaction is a valued component of the instructional process.

There are over 250 VHS courses available to students. Students are encouraged to be motivated as well as to have strong organizational and time management skills. Many of the VHS courses are unique and represent an opportunity for Joseph Case High School students to take courses beyond what is offered in the Joseph Case High School curriculum. As a member school, Joseph Case High School can enroll 25 students for VHS courses. VHS

courses are first offered to seniors who desire to take AP courses which are not offered onsite. Next, selections are offered to seniors who want to take a general course that also isn't offered onsite. Finally, if any seats remain, juniors can make course selections. All students electing VHS courses are encouraged to be motivated, focused and have strong organizational and time management skills. The VHS catalog and course descriptions are available in the guidance department and with the VHS coordinator. VHS classes meet daily in a dedicated computer lab in the Learning Common. Link to Virtual High School

Dual Enrollment/Early College Program

The Commonwealth Dual Enrollment Program provides opportunities for high school students to take college-level courses and earn credit simultaneously toward high school completion and their future college degrees. A minimum grade point average of 2.5 is required. Please see guidance or click here for more information regarding program requirements and eligibility.

School to Work Experience Program

This program may be offered to students in their senior year that are at risk for not graduating due to insufficient credits. Students that meet graduation requirements but fall short of the 105 credits needed for graduation may be offered the opportunity to earn credit for work experience. Upon acceptance to the School to Work program, the student must remain in good standing and reflect favorably upon Joseph Case High School in their working capacity. The School to Work Coordinator may contact the student's employer periodically for an update on the students work performance. The School to Work program is only offered to seniors under the following conditions:

1. Students must be in good standing.
2. With the addition of the Part-Time Work Experience program, a student must be able to graduate in the academic year the program is offered.
3. Students must have earned more than 65 credits and less than 80 credits in their first three years.
4. Student is responsible for procuring his or her own job.
5. If a student fails a term due to not fulfilling the Part Time Work Experience Program requirements, they will not earn part-time work experience credit for that term.
6. The guidance counselor must recommend the student for participation in the Part-Time Work Experience program.

Post-Secondary Pathways: Sample Four-Year Plans

All students, regardless of their post-secondary plans, must complete and pass the following subjects, earn a minimum of 105 credits, and pass all MCAS Graduation/Competency Determination requirements to graduate from Joseph Case High School. CPR certification is also a school committee-approved graduation requirement.

- Four years of English
- Four years of math
- Three years of science
- Three years of history
- One fine arts course
- One computer science course
- Grades 10-12: Three years of physical education (traditional and alternative pathways)
- Grade 9 – One Freshman Academy course that combines health, physical education, technology and research skills.

- Electives will be taken each year to round out a full-time schedule.

Below is a **sample** four-year high school plan for students wishing to enter a **community college** or **certificate program** after graduating from high school. In most cases, students do not have to provide SAT or ACT results. However, some colleges/programs require students to take placement tests. Students are responsible to check with the individual schools/programs to determine the exact classes needed to meet the requirements of their intended major/certificate.

- Four years of English
- Four years of math
- Three years of science
- Three years of history
- One computer science course
- One fine arts course
- Electives

Below is a **sample** four-year high school plan for students wishing to enter a **state university** immediately following their high school graduation. The requirements listed are the **minimum** admissions standard required. Students are responsible to check with the individual schools to determine school-specific requirements. College prep courses include Level 1, Honors, and AP. Generally, the required grade point average is 3.0

- Four years of college prep English
- Four years of college prep math
- Three years of college prep lab sciences
- Two years minimum of the same world language. Three years are highly recommended.
- Three years of history
- One fine arts course
- One computer science course
- Electives

Common Pathways

Guidance counselors and teachers are asked routinely by our students, "Which courses should I take to help prepare me for my future" or as guidance refers to it, a **career pathway**. Prospective pathways are purposefully designed student maps that Joseph Case High School believes will prepare students for post-secondary success in a specific endeavor. This does not mean you have to take these exact classes to be accepted into a certain major/field, but it does provide a guideline. The following sample pathways reflect careers in which Joseph Case High School students traditionally have expressed the most interest.

Education Pathway – Preschool/Child Care/Elementary Education

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
Child Care I
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Child Care II **(class meets two periods a day)**

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
AP Statistics
Child Care III
Psychology
Computer Science

Education Pathway – Secondary Education

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10/ Algebra II (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Psychology

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
AP Statistics
Economics
Physics
Computer Science/AP Comp Sci Principles /CAD

Pre-Medical Pathway

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Human Anatomy and Physiology

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
AP Biology
AP Chemistry
World Language IV
Psychology

Pre-Legal Pathway

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science

Grade 11
English / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Public Speaking

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus / AP Statistics
Intro to Law / Economics
Psychology
AP US History / AP U.S. Government and Politics
Elective

Business Pathway: Accounting, Management, Human Resources, Marketing, Real Estate

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Intro to Law / Economics
World Language III

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
AP Computer Science / AP Computer Science Principles
Intro to Business
AP Statistics
Accounting I

Health Services Pathway – Nursing, Pharmacy, Athletic Training, Physical/Occupational/Speech Therapy

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Integrated Math 10 /Algebra II (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Human Anatomy and Physiology

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus / AP Statistics
AP Biology
Physics
Psychology
Elective

Social Work Pathway: Counseling, Psychology, Sociology

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Geometry / Integrated Math 10
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Psychology

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
AP Statistics
Human Anatomy and Physiology
World Language IV
Elective

Engineering Pathway – Mechanical, Civil, Computer Software, Computer Hardware, Space Science

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Geometry /Algebra II (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Computer Science/AP Comp Sci Principles
World Language III

Grade 12
English 12 / AP
Integrated Math 12 / AP Calculus
Physics
AP Computer Science A
AP Statistics
Elective

Information Tech Pathway - Network Systems, Programming. Software Development, Cyber Security

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
Computer Science/AP Comp Sci Principles
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
AP Computer Science

Grade 12
English 12 / AP
Integrated Math 12 / Calculus
AP Computer Science Principles
Economics
Physics
Elective

Criminal Justice Pathway: Law Enforcement, Legal Services, Correctional Services, Military Police

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Computer Science/AP Comp Sci Principles

Grade 12
English 12 / AP
Integrated Math 12 / Calculus
AP Statistics
Economics
Physics
Psychology

Art Pathway

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
World Language I
Art I: Visual Design
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Art II: PDP

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Digital Art and Photography
Art 3: Foundation Drawing

Grade 12
English 12 / AP
Integrated Math 12
Portfolio Presentation or AP Studio Art
Video and New Media
Computer Science
Elective

Music Pathway

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
World Language I
Intro to Chorus/Intro to Concert Band
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Chorus/Concert Band

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Music Foundations I

Grade 12
English 12 / AP
Integrated Math 12 / Calculus
Concert Band
Public Speaking
Computer Science
Music Foundations II

Theatre Arts/ Musical Theatre Pathways

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Drama I
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Drama II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Drama III
Musical Theatre/Technical Theatre

Grade 12
English 12 / AP
Integrated Math 12
Drama IV
Public Speaking
Computer Science
Musical Theatre/Technical Theatre

Graphic Arts Pathway

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
World Language I
Art I: Visual Design
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science/AP Comp Sci Principles

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
AP Computer Science
Art 2: PDP

Grade 12
English 12 / AP
Integrated Math 12
Digital Photography
CAD
Video and New Media
AP Computer Science Principles

Animation (Technical) Pathway

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
World Language I
Art I: Visual Design
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science/AP Comp Sci Principles

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
AP Computer Science

Grade 12
English 12 / AP
Integrated Math 12
Digital Photography
CAD
Video and New Media
AP Computer Science Principles

Animation (Artistic) Pathway

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Art I: Visual Design
Freshman Academy

Grade 10
English 10
Integrated Math 10 (H)
Biology
History
World Language II
Art 2: Painting Drawing Printmaking

Grade 11
English 11 / AP Lang
Integrated Math 11 / Pre-Calc/Trig
Chemistry
History

World Language III
Art 3: Foundation Drawing
Grade 12
English 12 / AP
Integrated Math 12
Portfolio Presentation / AP Studio Art
Public Speaking
Video and New Media
Digital Photography

Cosmetology Pathway – Hairstylist, Makeup Artist, Nail Tech and Cosmetology Instructor

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Geometry / Integrated Math 10 (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Physics
World Language III

Grade 12
English 12 / AP
Integrated Math 12
Psychology
Accounting
Human Anatomy & Physiology or Physics
Intro to Business

Culinary Arts – Baker, Chef, Dietitian, Food Service Manager and Culinary Educators

Grade 9
English 9
Integrated Math 9/Geometry (H)
General Science
History
Fine Art
World Language I
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
Computer Science
World Language II

Grade 11
English 11
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Psychology

Grade 12
English 12
Integrated Math 12
Human Anatomy & Physiology
AP Statistics
Economics
Intro to Business

Automotive Pathway: Diesel Mechanic, Automotive Service Manager, Small Engine Repair

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
Fine Art
Instructional Technology
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
Computer Science
Advanced Instructional Technology

Grade 11
English 11
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
CAD
Advanced Instructional Technology

Grade 12
English 12
Integrated Math 12
Physics
Intro to Business
Accounting I
Advanced Instructional Technology

Carpentry Pathway: Construction Worker, Cabinet Installer, Building Inspector

Grade 9
English 9
Integrated Math 9 /Geometry (H)
General Science
History
Art I: Visual Design
Instructional Technology I
Freshman Academy

Grade 10
English 10
Integrated Math (10) / Algebra II (H)
Biology
History
Computer Science
Advanced Instructional Technology

Grade 11
English 11
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
Advanced Instructional Technology
CAD

Grade 12
English 12
Integrated Math 12
Economics / Intro to Law
Intro to Business
Accounting I
Advanced Instructional Technology

Animal Science/Marine Biology Pathways

Grade 9
English 9
Integrated Math 9 / Geometry (H)
General Science
History
World Language I
Fine Art
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
Biology
History
World Language II
Computer Science

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
Chemistry
History
World Language III
Computer Science / AP Computer Science Principles

Grade 12
English 12 / AP
Integrated Math 12 /Pre-Calculus / Calculus / AP Calc
AP Statistics
AP Biology
Human Anatomy and Physiology
Journalism / Creative Writing

Professional Writing Pathway: Journalism, Creative Writing, Publishing

Grade 9
English 9
Integrated Math 9 /Geometry (H)
History
General Science
World Language I
Art I: Visual Design
Freshman Academy

Grade 10
English 10
Integrated Math 10 / Algebra II (H)
History
Biology

World Language II
Computer Science

Grade 11
English 11 / AP
Integrated Math 11 / Pre-Calculus (H)
History
Chemistry
Journalism / Creative Writing
Paint/Draw/Printmaking

Grade 12
English 12 / AP
CAD
Statistics
Video and Digital Media
Economics/Intro to Law
Entrepreneurship/Public Speaking

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National Honor Society, Kappa Tau Chapter

For many students, invitation as a member of the National Honor Society (NHS) is the pinnacle of their achievements in school. This honor, recognized throughout the nation, is both the public recognition of accomplishment and the private commitment to continued excellence on the part of the new member.

Invitation to the NHS is a privilege, not a right. Students do not apply for membership in the National Honor Society; instead, they provide information to be used by the committee to support their candidacy for membership. Membership is awarded only to those students invited by the Faculty Council in each school. In evaluating potential members for the National Honor Society, leadership, scholarship, service, and character are taken into account by the Faculty Council.

Scholarship

The scholarship requirement set by the National Council is based on a student's cumulative grade point average. The minimum grade point average allowable is 3.3 on a weighted scale. Continued membership in the chapter is based upon students maintaining the standards under which they were admitted as members.

Leadership

The leadership criterion is considered highly important for membership selection. Leadership roles in both the school and community are considered.

Service

Service is generally considered to be those actions, undertaken by the student, which are done with or on behalf of others without any direct financial or material compensation to the individual performing the service.

Character

The society supports and recommends the use of a multi-faceted definition of character. A person of character demonstrates the following six qualities: respect, responsibility, trustworthiness, fairness, caring, and citizenship.

Student Activity Information Forms

In order to ascertain the degree to which a student candidate meets the selection criteria, portfolios are used to obtain information directly from the student regarding leadership and service activities and to elaborate on the student's perspectives concerning the honor society and its values. Students must also include two letters of recommendation attesting to their character and signatures verifying community service. The letters of recommendation cannot come from parents, grandparents or teachers in the high school.

These portfolios should not be considered under any circumstances as "applications" for membership. The portfolio exists to support the student's candidacy by providing relevant information for use by the Faculty Council.

Grade Point Average Calculation

Cumulative Grade Point Averages (GPA) are calculated at the end of each academic year of high school. The GPA is calculated by using the grading code below and assigning the correct weight to each letter grade in the courses taken at Joseph Case High School. After determining the weights for each course, a sum is calculated. This sum is then divided by the number of counted courses completed.

- GPAs are only calculated for courses taken at Joseph Case High School.
- Students taking Advanced Placement courses will receive Advanced Placement quality points only after sitting for the AP exams in May.

Quality Point Scale

Courses are ranked according to levels as follows:

Level	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
AP	5.3	5	4.7	4.3	4	3.7	3.3	3	2.7	2.3	2	0
H	4.8	4.5	4.2	3.8	3.5	3.2	2.8	2.5	2.2	1.8	1.5	0
1	4.3	4	3.7	3.3	3	2.7	2.3	2	1.7	1.3	1	0
2	3.8	3.5	3.2	2.8	2.5	2.2	1.8	1.5	1.2	0.8	0.5	0
3	3.3	3	2.7	2.3	2	1.7	1.3	1	0.7	0.3	0.2	0

General Requirements

Listed below are the general requirements for graduation from Joseph Case High School. All students at Joseph Case High School must successfully complete and pass the following requirements. Courses are full-year, except where noted:

English	4 courses
Math	4 courses
Physical Education	4 courses (or equivalent)
Science	3 courses
History	3 courses
World Language	2 courses*
Computer Science	1 course
Fine Arts	1 course
Freshman Academy	1 course

**applies to college prep students*

All graduates must be CPR certified.

All curricula have been designed to meet the academic and vocational aptitudes of each student. Before selecting a curriculum pathway, all students should confer with their parents, guidance counselors and subject-matter teachers. Curriculum choice may be reviewed in relation to student performance.

Grade placements are determined by credits as follows:

Grade 10 ..... 26 credits
Grade 11 ..... 52 credits
Grade 12 ..... 70 credits
Graduation .....105 credits

All students must carry a minimum of 6.5 full-time subjects each year to reach the minimum state requirement of 990 hours of instruction. A minimum of twenty (20) credits must be acquired during the senior year.

Grades/Credits

A – Excellent (90-100) ..... 5 credits
B – Good (80-89) ..... 5 credits
C – Fair (70-79) ..... 5 credits
D – Poor (65-69) ..... 5 credits
F – Failing (Below 65) ..... no credit

MCAS Requirements

Students must earn a competency determination in each of the following three disciplines via the Massachusetts Comprehensive Assessment System (MCAS): English Language Arts, Mathematics, and Science/ Technology/Engineering.

Link to DESE Graduation Requirements

Massachusetts State University Requirements

The information included in the section below is designed to assist the student in determining what courses are generally required for admission to post-secondary institutions. Specific schools sometimes have slightly different requirements. Therefore, it is advisable for students to check with their school counselors for more detailed information.

MASSACHUSETTS STATE UNIVERSITY/UMASS MINIMUM ADMISSIONS REQUIREMENTS

The admissions standards for the state universities and UMass emphasize a strong academic high school background so that students enter college ready to learn. These standards represent minimum requirements; meeting them does not guarantee admission, since campus officials consider a wide range of factors in admissions decisions. Students shall have fulfilled all requirements for the high school diploma or its equivalent upon enrollment. *It is important to note that admissions standards for the state's community colleges differ. Community colleges may admit any high school graduate or GED recipient.*

Link to www.mass.edu/admissions.

Standardized College Assessment Tests

The **Scholastic Assessment Test (SAT)** is a College Board assessment measuring the reading, writing and math skills that students have developed over the years: skills that students need to be successful in college. The test consists of multiple-choice questions in critical reading and math reasoning, with a few free-response math questions. Juniors generally take the SAT test during the spring. For more information regarding the SAT test, please visit the College Board's website.

The **ACT** (originally an abbreviation for American College Testing) is another college readiness assessment used by some colleges and universities to help in making admissions decisions. The ACT is offered six times per year and has four sections: English, Reading, Math and Science. The test includes 215 multiple-choice questions as well as a 40-minute optional writing section that selected schools may require. Traditionally, students take the ACT in April and/or June of their junior year and, if necessary, again in their senior year. Students can register online on the ACT website.

PSAT/NMSQT is conducted annually by the College Board and the National Merit Scholarship Corporation. This test consists of primarily multiple choice reasoning questions in critical reading, math, and writing skills, with a few free-response math questions. The test is given in October each year. The PSAT is modeled after the SAT which may be one piece of a

student's application to college. The PSAT is a practice or preliminary test for sophomores and juniors who may consider attending college after graduating from high school.

If students elect to take the PSAT for practice as sophomores, it is recommended that they still consider taking the test as juniors. Consideration for recognition and perhaps scholarship opportunities, as administered by the National Merit Scholarship Corporation, are based upon performance on the junior year PSAT. Scores from sophomore year are not considered.

The Scheduling Process

Course Changes

When a scheduling change is considered during the school year for a course in which a student is currently enrolled, the following guidelines apply:
No courses will be changed without the completion of the add/drop form which provides written acknowledgement from the student's parent/guardian, teacher, department chair and guidance counselor.

Even with approval, a change in a course or level can be made only if there is sufficient space in the receiving course at the time that the actual schedule change computer transaction is completed. Also, a change in one course may alter a student's whole schedule.

Add/Drop Policy

Any level change will appear as such on the student's permanent record/transcript as a withdrawal/pass or withdrawal/fail.

Academic Eligibility

In order to be eligible to participate in an interscholastic contest or an extracurricular activity at Joseph Case High School, a student must:

1. Be a registered student at Joseph Case High School in order to represent Joseph Case High School in any school activity (sports, drama, band, etc.). Out-of-district placement special needs students are eligible.
2. Be less than nineteen (19) years of age on September 1 of that school year (for athletes only).
3. Pass at least five (5) full time subjects in the immediately preceding quarter with a minimum of 3 Cs, and 2 Ds. At Joseph Case High School credit is awarded at the end of the school year for all full time courses. To be eligible for the fall extracurricular activities, a student must have passed at least five (5) full time subjects with a minimum of 3 Cs, 2 Ds and full credit in their final grades of the previous academic year. This policy does not include incoming freshmen.
4. Eligibility status does not change until report cards are published.

Swansea Public Schools
K-12 Student Computer/Network/Internet User Agreement

Introduction

We are pleased to offer students of the Swansea Public Schools access to the district computer network resources, and the Internet. These Acceptable Use Guidelines serve as a written agreement between the Swansea Public Schools

and its students and staff. It outlines the appropriate uses for technology in the district as well as the consequences for failure to adhere to those guidelines. To use these resources, all students and parents must sign and return the pupil information card that was distributed by the school. Copies of the pupil information card and this document are also located on our website (www.swanseaschools.org). Parents, please read this document carefully, review its content with your son/daughter, and sign the pupil information card where appropriate. Any questions or concerns about this permission form or any aspect of the computer network should be referred to your school's Library Media Specialist, Technology Integration Specialist, or Principal.

General Network and Technology Use

Technology in the Swansea Public Schools will be used in collaboration with curriculum. Computers and other technology equipment are tools used to support the teaching and learning process. The network is provided for students to conduct research, complete assignments, and communicate with others. Access to computers and network services is given to students who agree to act in a considerate and responsible manner. Students are responsible for good behavior on school computer networks just as they are in a classroom or a school hallway. Access to all technology is a privilege – not a right. As such, general school rules for behavior and communications apply and users must comply with district standards and honor the agreements they have signed. All student use of the Internet is to be conducted under faculty supervision. Nevertheless, faculty members are not expected to monitor student use at every moment. Each student and staff member are expected to take individual responsibility for his or her appropriate use of the Internet and follow all conditions and rules of technology use as presented by the Swansea Public Schools. Any violation of the conditions and rules may result in revocation of technology privileges and possible legal and/or disciplinary action.

All data storage areas including, but not limited to workstations, external drives, network storage, etc., may be treated like school lockers. Network administrators and administration may review files and communications to maintain system integrity and insure that users are using the system responsibly. Users should assume that files stored on the district owned equipment and equipment that is brought from home (i.e. laptops, CD, floppy discs, etc.) will always be public and available for anyone.

User's Privileges and Responsibilities

Users of Swansea Public Schools equipment may:

1. Use all authorized hardware and software, when available, for which they have received training to facilitate learning and enhance educational information exchange.
2. Access information from outside resources, which facilitate learning and enhance educational information exchange.
3. Access district networks and the Internet to retrieve information, facilitate learning and enhance educational information exchange.

Users are responsible for:

1. Utilizing technology in the school only for facilitating learning and enhancing educational information exchange consistent with the educational mission of the Swansea Public Schools.
2. Maintaining the privacy of passwords and are prohibited from publishing or discussing passwords.
3. Keeping all inappropriate materials, inappropriate text files, or files dangerous to the integrity of the school's network, equipment, and software from entering the school via the Internet, removable media, or other means.
4. Keeping hardware and software from being removed from school premises without prior consent.
5. Maintaining the integrity of the e-mail system (if applicable) and making only those e-mail contacts, which facilitate learning and enhance information exchange.
6. Keeping all food and drink away from computers, printers, etc.
7. Adhering to all copyright guidelines and avoiding plagiarism.

8. Adhering to the rules established for the use of hardware, software, labs, and networks in the school and through remote access.
9. Engaging in no harassment. The Swansea Public Schools Harassment and Discrimination Policy, which is included in the individual schools' handbooks, is applicable to Internet conduct.

Internet / World Wide Web

Access to the Internet will enable students to use thousands of libraries and databases. Within reason, freedom of speech and access to information will be honored. Families should be warned that some material accessible via the Internet might contain items that are illegal, defamatory, inaccurate or potentially offensive to some people. While our intent is to make Internet access available to further educational goals and objectives, students may find ways to access other materials as well. Filtering software is in use, but no filtering system is capable of blocking 100% of the inappropriate material available on the Internet. We believe that the benefits to students from access to the Internet, in the form of information resources and opportunities for collaboration, exceed and disadvantages. Ultimately, teachers, parents and guardians of minors are responsible for setting and conveying the standards that their students/children should follow when using media and information sources.

To use computers and networked resources, all students and parents must sign and return the pupil information card. The activities listed below are not permitted:

- Sending or displaying offensive messages or pictures
- Using obscene language
- Using non-educational websites that do not support teaching and learning, such as, myspace.com
- Giving personal information, such as complete name, phone number, address or identifiable photo, without permission from teacher and parent or guardian
- Harassing, insulting or attacking others. The Swansea Public Schools Harassment Policy is applicable to Internet use
- Participating in any communications that facilitate any illegal activities or violate any other laws
- Transferring, copying, downloading any non-educational material that does not support teaching and learning such as music or inappropriate images
- Damaging or modifying computers, computer systems or computer networks
- Removing hardware and/or software from school premises without prior consent
- Consuming food and drink near computers
- Violating copyright laws and committing plagiarism
- Using others' passwords
- Trespassing in others' folders, work or files
- Intentionally wasting limited resources
- Employing the network for commercial purposes, financial gain, or fraud
- Utilizing district resources to establish electronic mail accounts through third-party providers or any other non-standard electronic mail system. Email accounts are not provided for students
- Intentional use of software or other websites to bypass the Internet filtering technology.

Consequences

Failure to adhere to the technology conditions and rules of the Swansea Public Schools will result in disciplinary action, which could include, but not be limited to the, following:

- Revocation of access to any Swansea Public Schools computer in the building

- Revocation of network privileges and/or access
- Possible legal and/or disciplinary action
- Individuals shall reimburse the school district for repair or replacement of district property lost, stolen, damaged, or vandalized while under their care.

The ultimate consequences are at the discretion of the building administrator.

Disclaimer

The Swansea Public Schools make no warranties of any kind for the technology services provided. The school system will not be responsible for repair or replacement of equipment maliciously damaged by an individual. Protection of data is the responsibility of the user. The district will not be responsible of any loss in service or data. Use of all technology and networks is at one's own risk. The school system is not responsible for verifying accuracy of any information obtained through the technology or network.

The Swansea Public Schools reserves the right to change these Guidelines at any time.

COURSE DESCRIPTIONS
2022-2023

English

Department Overview

The English Department curriculum is directly driven by our school's Vision of the Graduate, offering a strong program of contemporary and classic literature including diverse narrative voices and authors with a wide variety of backgrounds. Students in all curriculum levels read a core of important works in many genres, including a collection of myths and epics from varied cultures, a survey of American Literature, a chronological exploration of European literature, and a thematic approach to world literature with an emphasis on close reading and critical analysis. Through in-depth literary study, students are challenged to consider and explore the timeless issues that shape and impact our lives.

The Department strives for excellence in writing by providing students with multiple opportunities at every grade and curriculum level to write personally, imaginatively, persuasively and analytically. Students use the process of writing to focus, clarify, deepen and expand their thinking, supporting their reasoning with coherent arguments and specific evidence. Students learn to revise, edit, respond to written comments, reflect upon their progress, and take responsibility for their work. Through the development of written expression over the course of four years, students learn to see the world as writers and understand that writing, as well as reading, is a vital part of life.

Additionally, all English courses engage students in the learning process through the use of technology. Students are required to demonstrate mastery of concepts through presentation mediums including Google Slides, Screencastify, Flipgrid, digital software and online discussion threads.

Through class discussions, literature circles, Socratic seminars and web-based communication tools, students are **engaged as digital citizens**. Teachers utilize both formative and summative assessments to gauge learning and direct instruction. Through these approaches, students gain greater insight, a deeper understanding of texts, and the knowledge necessary to demonstrate understanding through **clear and effective communication, innovation, iteration and adaptability and problem-solving.**

Students are required to take an English course each of their four years at Case High School. For those students interested in pursuing English-related topics beyond the requirements, the option for additional English elective courses is available through course offerings at Case and Virtual High School.

Course Offerings

English 9(1/2/H) 5 credits

Both English 9(1) and 9(2) establish the groundwork for all subsequent high school literature courses. These courses focus on the development of students' literary analysis skills in reading assignments, writing assignments, and class activities. Initial placement in these courses is guided by a student's grade 8 academic track.

The course utilizes a multi-genre approach to literature through short stories, dramatic selections, novels, non-fiction, mythology and poetry. Course texts include *Romeo and Juliet*, *Antigone, After the First Death*, *A Tale of Two Cities,* a selection of short stories, poetry and non-fiction excerpts. In a freshman English course, students will be expected to read grade-level texts for purpose and meaning. Students will communicate clearly and effectively both orally and through discussion threads and utilize various writing techniques, including the expository writing format based on Massachusetts Frameworks for English Language Arts and MCAS standards. Through vocabulary study, students will be required to properly discern meaning from context and apply new vocabulary to their written work and reading comprehension. Selected grammatical topics are presented with the intention of improving student writing.

Students are evaluated through summative assessments, project-based demonstrations of knowledge and synthesis, and writing samples, including open response and five-paragraph essay formats. All formal writing assignments are evaluated according to the school-wide writing rubric and provide students with extensive commentary and suggestions for revision to improve student writing.

Upon completion of English 9(1) and English 9(2), students will have acquired a foundation of critical reading and writing skills, knowledge of various structures and conventions in literature, and a preliminary exposure to presentation mediums and class demonstrations.

Honors distinction in English 9 is available for students who complete additional independent readings and assessment during the summer as well as each term. Honors students in English 9 are scheduled into level one sections for daily instruction, but work independently to achieve this distinction.

Link to Mass. Curriculum Frameworks for ELA and Literacy

English 10 (1/H) 5 credits

English 10(1) is geared for students planning to attend a four-year college. Class time is devoted to close textual reading, careful note-taking, and focused discussion. After intensive study of a work of literature, students take tests modeled on the MCAS including open response questions. Students also practice the MCAS long composition with topics derived from literary texts as well as from recent MCAS exams. In addition, weekly SAT preparation is addressed through a comprehensive vocabulary and grammar review program. Homework is a critical component of English 10. Students are expected to complete lengthy reading assignments, write formal compositions, and prepare for vocabulary tests and unit exams.

The literary focus is a survey of world literature, from ancient to modern. In addition to the MCAS practice done throughout the year, students are given an intensive month-long MCAS preparation review prior to the spring testing. Study and time management skills are emphasized.

Students are actively engaged in a variety of lesson mediums. Students are expected to analyze texts and to synthesize meaning from the literature. Presentations rely on a variety of formats which utilize both technology and the arts.

Students are assessed via a variety of methods including both open response and long compositions. Student portfolios provide continued opportunity for growth through a revision process. Student progress may also be assessed through projects, posters and oral presentations.

Upon completion of English 10 (1), students will be able to write with a clear focus, coherent organization, and sufficient detail. Students will be able to analyze the structures and elements of nonfiction, fiction and poetry.

Honors distinction in English 10 is available for students who complete additional independent readings and assessment during the summer as well as each term. Honors students in sophomore English

are scheduled into level one sections for daily instruction, but work independently.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 10 (2) 5 credits

English 10(2) is a sophomore course for students who plan to attend a two-year junior college. Many of the reading assignments are the same as those of English 10(1), but more time is spent developing individual writing skills, close reading skills as well as researching a text for the purpose of writing. Students are given the same MCAS preparation as students in English 10(1). Study and time management skills are emphasized.

The literary focus is a survey of world literature, from ancient to modern. In addition to the MCAS practice done throughout the year, students are given an intensive month-long MCAS preparation review prior to the spring testing. Study and time management skills are emphasized.

Students are assessed via a variety of methods including both open response and long compositions. Student progress may also be assessed through projects, posters and oral presentations.

Upon completion of English 10(2), students will be able to write with a clear focus, organization, and detail. Students will be familiar with structures and elements of nonfiction, fiction and poetry.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 11 (1) 5 credits

English 11(1), as a preparation for college English, is structured to introduce juniors to a comprehensive background in American literature, expository writing, and vocabulary development. Process writing, with a focus on unified coherent organization and appropriate substantiation, is emphasized. In addition, the skills of sentence combining, subordination, economy of expression, and proofreading are taught. The literary focus is on American literature and nonfiction from colonial days through the twentieth century.

The vocabulary program, through which students will gain familiarity with the format of the SAT, is founded on the development of context skills needed to read and understand college-level texts. In the spring, an extensive amount of time is devoted to SAT preparation and practice.

The intention of the course is to equip college-bound students with the skills needed for English 12 and eventual competition at a four-year college.

Student assessment will include, but is not limited to, open response questions, essays, quizzes, unit exams, projects, vocabulary tests, and SAT prep tests, group and individual presentations and Socratic seminars.

Upon completion of the course, students will have mastered the critical terms, approaches, literary works, and composition skills that they will need to excel in the English 12 (1) program.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 11 (2) 5 credits

English 11(2) intends to prepare students for world Literature 12(2) and to help pass the college placement examinations in reading and writing, leading to eventual study in an associate's degree program. Students read from many sources and types of literature, including nonfiction, in order to develop the skills of identifying, analyzing and evaluating a text for the combined purposes of research and writing. The course integrates reading and creative writing in the style of an author parody of form. Using the writing process, students are required to draft, revise and conference with the teacher before submitting a final paper.

Revising and rewriting are necessary class activities. Readings focus on American literature.

Student assessment will include, but is not limited to, open response questions, essays, reading, quizzes, unit exams, projects, and vocabulary tests.

Upon completion of the course, students should be able to evaluate a text, research an element of the text and present an understanding through a research paper.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 12 (1) 5 credits

English 12 (1) is a survey of world literature, from ancient to modern, with the goal of bringing all four years of literature study into focus. The course concentrates heavily on expository, analytic and research-based writing, especially the kinds of essay strategies that students will be expected to employ in college. Formal compositions are used as a primary assessment tool, with grammar and usage skills developed within the context of these writing assignments. An intensive three-week SAT preparation class before the October test date is also a component of this course. Further, all senior English classes are venues for the high school capstone project. The senior capstone is an interdisciplinary, personalized research project that provides additional focus in the senior student's second semester.

Student assessment will include, but is not limited to, essay exams, home tests, response papers, term paper, class participation, group projects, conferences, in class assignments and an intensive three-week SAT preparation class before the October test date.

Upon completion of this course students will be prepared for the college experience through mastery of grade 12 expectations in formal writing, research methods, integration of secondary sources, collaboration in groups and formal class presentations.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 12 (2) 5 credits

English 12(2) prepares students who plan to attend a two-year school or college with intensive skill practice in close reading and expository writing. Similar in content to English 12(1), the course surveys a variety of world literary works, focusing on their common literary forms, such as short story, novel, and allegory. By offering vocabulary development and study skills training as well, the level (2) course aims to prepare students to undertake successfully an associate's degree or transfer program at a junior college. As well, all senior English classes are venues for the high school capstone project. The senior capstone is an interdisciplinary, personalized research project that provides additional focus in the senior student's second semester.

Student assessment will include, but is not limited to, open responses, essays, unit exams, reading quizzes, projects, and vocabulary tests.

Upon completion of the course, student should have attained the skills necessary to read closely and communicate effectively in preparation for the community college experience.
Link to Mass. Curriculum Frameworks for ELA and Literacy

AP English Language and Composition 5 credits

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.

The AP English Language and Composition course is designed to help students become skilled readers and writers through engagement with the following course requirements:

- Composing in several forms (e.g., narrative, expository, analytical, and argumentative essays) about a variety of subjects

- Writing that proceeds through several stages or drafts, with revision aided by teacher and peers
- Writing informally (e.g., imitation exercises, journal keeping, collaborative writing), which helps students become aware of themselves as writers and the techniques employed by other writers
- Writing expository, analytical, and argumentative compositions based on readings representing a variety of prose styles and genres
- Reading nonfiction (e.g., essays, journalism, science writing, autobiographies, criticism) selected to give students opportunities to identify and explain an author's use of rhetorical strategies and techniques
- Analyzing graphics and visual images both in relation to written texts and as alternative forms of text themselves
- Developing research skills and the ability to evaluate, use, and cite primary and secondary sources
- Conducting research and writing argument papers in which students present an argument of their own that includes the analysis and synthesis of ideas from an array of sources
- Citing sources using a recognized editorial style (e.g., Modern Language Association, The Chicago Manual of Style)
- Revising their work to develop:
    - A wide-ranging vocabulary used appropriately and effectively;
    - A variety of sentence structures, including appropriate use of subordination and coordination;
    - Logical organization, enhanced by techniques such as repetition, transitions, and emphasis;
    - A balance of generalization and specific, illustrative detail; and
    - An effective use of rhetoric, including tone, voice, diction, and sentence structure.

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here.

AP English Literature and Composition 5 credits

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. There are no prerequisite courses for AP English Literature and Composition. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.

The course is designed to help students become skilled readers and writers through engagement with the following course requirements:

- Reading complex imaginative literature (fiction, drama, and poetry) appropriate for college-level study
- Writing an interpretation of a piece of literature that is based on a careful observation of textual details, considering the work's structure, style, and themes; the social and historical values it reflects and embodies; and such elements as the use of figurative language, imagery, symbolism, and tone
- Composing in several forms (e.g., narrative, expository, analytical, and argumentative essays) based on students' analyses of literary texts
- Writing that proceeds through several stages or drafts, with revision aided by teacher and peers
- Writing informally (e.g., response journals, textual annotations, collaborative writing), which helps students better understand the texts they are reading
- Revising their work to develop
    - A wide-ranging vocabulary used appropriately and effectively;
    - A variety of sentence structures, including appropriate use of subordination and coordination;
    - Logical organization, enhanced by techniques such as repetition, transitions, and emphasis;
    - A balance of generalization and specific, illustrative detail; and
    - An effective use of rhetoric, including tone, voice, diction, and sentence structure.

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here.

English 9/10 5 credits

English 9/10 is designed to expose students to a variety of literature, vocabulary and grammar activities in order to develop and improve their ability to read, write and communicate effectively. Emphasis is also placed on familiarizing students with literary forms and techniques. Instruction focuses on preparing students for the MCAS and the skills to be lifelong learners.

Students are expected to read grade-level tests with the necessary accommodation prescribed by the IEP. Students are also expected to discuss a work of literature in a five paragraph expository essay.

Student assessment includes tests, quizzes, open response prompts, class discussion and participation.

Upon completion of the course, students should have acquired the skills needed to pass the English MCAS, as well as those needed to comprehend grade-level texts and communicate clearly and effectively through their writing given modifications and accommodations.
Link to Mass. Curriculum Frameworks for ELA and Literacy

English 11/12 5 credits

English 11/12 is designed to expose students to a variety of literature, vocabulary and grammar activities in order to develop and improve their ability to read, write and communicate effectively. Emphasis is also placed on familiarizing students with literary forms and techniques. They will also be able to discuss elements and structures of literary texts and to incorporate their understanding of those into expository and personal writing assignments. Part of the course focuses on preparing students for the ACUPLACER, with an emphasis on the structure and style of the test.

Assessment includes tests, quizzes, open response prompts, class discussion and participation.

Upon completion of the course, students should have a thorough understanding of their abilities and limitations, as well as options available to them for a successful independent post-secondary experience.
Link to Mass. Curriculum Frameworks for ELA and Literacy

Journalism 2.5 credits

Journalism is a full-time, half-year course for juniors and seniors that will develop and hone writing and reporting skills to help students excel in their post-secondary pursuits. Students will learn a variety of writing modes (i.e., hard news, soft news, editorials, reviews). In addition to refining their writing craft, students will contribute stories to Case's online newspaper "The Cardinal." Successful students may join the newspaper club and continue to post articles to the school newspaper all year to broaden their publishing portfolio and contribute to the school culture.

Student assessment includes, but is not limited to presentations of news analysis, written articles, and peer critiques.

Link to Massachusetts Arts Curriculum Framework

Creative Writing **2.5 credits**

Creative Writing is a full-time, half-year course for juniors and seniors that will develop and hone narrative and poetic writing skills to help students excel in their post-secondary pursuits. Students will learn a variety of writing modes (i.e., the short story, poetry, screenwriting). In addition to refining their writing craft, students will contribute stories to the literary arts section of Case's online newspaper "The Cardinal." Successful students may join the newspaper club and continue to post stories to the school newspaper all year to broaden their publishing portfolio and contribute to the school culture.

Student assessment includes, but is not limited to presentations of story and poetry analysis, written stories, poems, and screenplay excerpts, and peer critiques.

Link to Massachusetts Arts Curriculum Framework

Fine Arts

Visual Arts:

Guided by the school's Visions of the Graduate, Visual Art courses use problem-solving and creative learning to encourage students to connect visual knowledge to other subjects and to respond with innovation, understanding, flexibility and imagination.

Students relate their work to real-world situations. The art program has been designed to help students visualize the world around them with skill, awareness and personal reflection. **Students apply the processes of analysis, evaluation and creation in problem-solving** demonstrated through completion of their projects. They identify and collect information needed to find solutions in problem-solving and use an efficient /effective strategy to reach those solutions.

Through introspection and risk-taking, students learn to use the elements of art and principles of design to create two adimensional works of art. Centered in the practice and history of the arts disciplines, a sequential program of arts instruction takes into account students' evolving needs and interests, builds on their prior experiences, and provides a valuable means to express their unique visual voice.

Each year the art classes visit local museums and public art exhibits with second, third and fourth year art students to explore the valuable role of artists in their communities. Consequently, it provides students with **authentic learning opportunities** as they compare examples of works from several art domains within a period or culture and explain the extent to which each reflects function, customs, religious beliefs, social philosophies, aesthetic theories, economic conditions, and/or historical or political events.

The Joseph Case High School Annual Art Show is a highlight of our art program. Each art student organizes the body of their portfolio and prepares at least one piece of artwork for a public exhibition. Family members and the extended school community visit the public display providing a forum for insight and analysis about the students' work.

COURSE OFFERINGS

Art I: Visual Design (2) **5 credits**

This introductory visual design course will introduce students to the Elements and Principles of Art and Design through the development of 2D and 3D artwork. Course content will include traditional and non-traditional approaches to visual art-making that explores various art media including, but not limited to: drawing, painting, printmaking, collage, and assemblage. Experimentation with materials and technical skills will be developed in order to create meaningful works of art.

Assessments are based on one's portfolio/final artworks, one-on-one critiques, classroom critiques, daily participation, homework, annual art show participation, rubrics, and self-assessment.

Upon completion of Visual Design, students will be familiar with the Elements of Art and Principles of Design. Students will have a foundation of knowledge of these tools in order to create art with artistic intent that evokes, expresses, and communicates their ideas, knowledge, and personal experiences. Students will be able to connect the arts to the self, society, history, culture, and other disciplines and develop a foundational language for responding, interpreting, and evaluating artwork.

Link to Massachusetts Arts Curriculum Framework.

Art II: Painting, Drawing, and Printmaking (1) 5 credits

This course is designed for students who have satisfactorily completed Art 1: Visual Design and would like to continue to develop their technical and expressive skills. Through traditional and non-traditional approaches, students will continue to explore a variety of tools and media including drawing, painting, printmaking and two- and three-dimensional design and projects that address individual and contemporary issues. Assignments will emphasize development of the artist's personal voice, the ability to express ideas visually, and strengthening their technical skills.

Students Assessments are based on one's portfolio/final artworks, one-on-one critiques, classroom critiques, daily participation, homework, annual art show participation, rubrics, and self-assessment.

Upon completion of Painting, Drawing, and Printmaking, students will have developed intermediate skills in drawing and be able to put their knowledge of the Elements of Art and Principles of Design towards making art that evokes, expresses, and communicates their ideas, knowledge, and personal experiences. Students will be able to connect the arts to the self, society, history, culture, and other disciplines and apply language for responding, interpreting, and evaluating artworkRecommended: successful completion of Art I: Visual Design.

Link to Massachusetts Arts Curriculum Framework.

Art III: Foundation Drawing (1) **5 credits**

This is a drawing class designed for the advanced art student. Beginning with pencil and charcoal drawings, the student learns to anticipate and solve various problems within the range of drawing media. This course emphasizes observational drawing techniques.

Foundation Drawing prepares the student for Portfolio Presentation or AP Studio Art.

Assessments are based on quizzes/quarterly exams, one-on-one critiques, daily participation, homework, portfolios, annual art show participation, project rubrics, and self-assessment.

Upon completion of Foundation Drawing, students will have mastered knowledge of drawing skills enhanced by greater perceptual powers, rendering shading values to create form, and will be displaying their personal techniques and individual style.

Recommended: successful completion of PDP.

Link to Massachusetts Arts Curriculum Framework

Art IV: Portfolio Presentation (1) 5 credits

This class has been designed for the advanced art student. Students will refine their fine art skills and techniques through a portfolio section that demonstrates their breadth of knowledge and skill. Students will also demonstrate an understanding of a wide variety of materials and techniques through the creation of a body of work based on a theme and concept of their interest and choice.

Assessments are based on quizzes/quarterly exams, one-on-one critiques, daily participation, homework, portfolios, annual art show participation, project rubrics, and self-assessment.

Upon completion of Portfolio Presentation, students will have mastered knowledge of subject matter and media choices for twelve two dimensional breadth pieces to achieve desired effects, and creative investigation in developing twelve conceptual concentration pieces.

Recommended: successful completion of Foundation Drawing

Link to Massachusetts Arts Curriculum Framework.

AP Studio Art: 2-D Design 5 credits

AP Studio Art: 2D Design enables motivated high school students to do college-level work with the possibility of qualifying for credit in college through the submission of an AP portfolio. The evaluation of student work is made on the basis of a portfolio that covers two general areas: original work that demonstrates quality "selected works"; and a sustained investigation project (work that pursues in depth a particular artistic concern). Twenty original works s are submitted to the AP College Board in digital form. The general portfolio allows students to demonstrate achievement in the investigation of a concept and supporting writing.

Students who elect to take the AP examination must encumber the expense of the exam and digital portfolio.

Assessments are based on quizzes/quarterly exams, one-on-one critiques, daily participation, homework, portfolios, annual art show participation, project rubrics, and self-assessment.

Upon completion of AP Studio Art, students will have mastered knowledge of subject matter and media choices for twelve two dimensional breadth pieces to achieve desired effects, and creative investigation in developing twelve conceptual concentration pieces.

Recommended: successful completion of Foundation Drawing.

More info from College Board, click here.

Digital Photography (1) 5 credits

This course will introduce advanced art students to the art of digital photography, digital art, and the Adobe Creative Suite.. Photography topics will include composition, light and shadow, shutter speed, and aperture through subject matter including portraiture and landscape. Photoshop topics will include an introduction to basic commands in the Photoshop toolkit, layers, adjusting size and color. This course emphasizes the creative elements of image making and development of personal style. Students will also be introduced to the work of historic and contemporary photographers and graphic design using Photoshop. Students are recommended to have a Smart phone with camera.

Assessments are based on quizzes/quarterly exams, one-on-one critiques, daily participation, project rubrics and self-assessment.

Upon completion of Digital Photography/Photoshop, students will have mastered knowledge of the primary functions/modes of a digital camera, effective use of light, techniques that give dimension to an image, and an ability to create digital art using a variety of applications.

Recommended: for juniors and seniors who have successfully completed Art I: Visual Design.

Link to Massachusetts Arts Curriculum Framework.

Music: Overview

Music is driven by our school's Visions of the Graduate, offering a strong program of vocal, instrumental, historic and practical applications of music education. Case students are challenged to consider and explore musical concepts and styles and learn how they impact our lives. Students are required to take a minimum of one fine arts course, which music is considered to fulfill. For those students interested in pursuing music topics beyond the requirement, the option for additional music electives exist.

Students in band and chorus are of all grade levels and perform a variety of musical selections. Students in music foundations learn compositional theory from basic scale production to complex 20th century compositional forms and styles. Students electing to take History of American Popular Music will look at the historic impact of popular music throughout the inception of Rock & Roll. Through class discussions, listening critiques and additional discussion forums, students are taking responsibility for their own learning. A variety of technologies and electronic media is used to enhance instruction and give students a global minded perspective of the subject matter. Students gain greater insight and a deeper understanding of music, and the knowledge necessary to become **active learners that demonstrate innovation, iteration, and adaptability** in the classroom. All music courses are designed to promote a **global-minded perspective that includes responsibility, empathy, and resilience**.

Students also learn to respond to written comments, reflect upon their progress, and take responsibility for their own work in each class. Through the development of their musical expression and find appreciation for music throughout history.

COURSE OFFERINGS

History of American Popular Music (2) 5 credits

The primary objective of this course is to teach the students about the history of popular music in the United States from the 1950's to present day. Students will learn how music affected history and the role it played in society throughout the years. Students will also learn basic song form analysis and lyrical interpretation. Two research projects will be assigned in this class throughout the year. No instrumental or choral experience is required.

Assessments include tests, compositions, classwork, homework and in-class participation.
Link to Massachusetts Arts Curriculum Framework

Introductory Chorus (2) **5 credits**

This course is designed to improve the students' musical skills in performance, theory and overall understanding of music. This is achieved through the exploration and performance of new and traditional chorus pieces. Students electing to take this course will be expected to attend any pre-concert after-school rehearsals and all performances, including the Winter & Spring Concerts, Class Night and Graduation. Previous singing experience is helpful, but not required. A portion of the grade for this course depends on participation in performances and rehearsals outside of school time.

Students are assessed through in-class participation/ preparation, concert and after-school rehearsal attendance, quarterly performance exams and in-class work.
Link to Massachusetts Arts Curriculum Framework

Chorus (1) **2.5 credits**

Chorus is a full-time, half-year course for sophomores, juniors and seniors that will expand upon knowledge learned in Introductory Chorus course. This course will develop students understanding of the ensemble dynamics through the practical application of their musical knowledge and will help students excel in their post-secondary musical pursuits. Students will learn a variety of vocal warm up methods, musical genres & performance posturing & techniques that will be explores by research and demonstration projects. Successful students will also be given the opportunity to be featured in different leadership and soloist roles within the ensemble.

Student assessment includes, but is not limited to composition, presentations, performance, and peer-critiques.
Prerequisite: Introductory Chorus. Students may elect to take this course more than once.
Link to Massachusetts Arts Curriculum Framework

Introductory Concert Band (2) **5 credits**

This course is designed to improve the students' musical skills in performance, theory and overall understanding of music. This is achieved through the exploration and performance of new and traditional concert band compositions. Students electing to take this course will be expected to attend any pre-concert after-school rehearsals and all performances, including the Winter & Spring Concerts, Class Night and Graduation. The ability to play a musical instrument is extremely recommended; however, if a student has begun instrument instruction during the summer, they may be permitted to participate.

All students are required to provide their own instrument and all the materials necessary to play it (i.e. reeds, valve oil). Percussion students may need to provide their own sticks or mallets. Any students unable to provide their own instrument must see the band director as soon as possible in order for a solution to be agreed upon. Also, students are required to obtain a folder or binder in which to store their sheet music.

Assessment and grading procedures include in-class participation, preparation, concert and after-school rehearsal attendance, the quarterly performance exam and in-class work.
Link to Massachusetts Arts Curriculum Framework

Concert Band (1) **2.5 credits**

Concert Band is a full-time, half-year course for sophomores, juniors and seniors that will expand upon knowledge learned in Introductory Concert Band course. This course will develop students understanding of the ensemble dynamics through the practical application of their musical knowledge and will help students excel in their post-secondary musical pursuits. Students will learn a variety of instrumental warm up methods, musical genres & performance techniques that will be explored through research and demonstration projects. Successful students will also be given the opportunity to be featured in different leadership and soloist roles within the ensemble.

Student assessment includes, but is not limited to composition, presentations, performance, and peer-critiques.
Prerequisite: Introductory Concert Band. Students may elect to take this course more than once.
Link to Massachusetts Arts Curriculum Framework

Music Foundations I (1) **5 credits**

This course is designed to teach the basic principles of music theory, composition and arrangement. Students will learn how to compose on paper as well as on the latest in music technology in our classroom computer lab. Students enrolling in this course should have some prior experience in reading music and/or the ability to play a musical instrument.

Student assessment includes tests/quizzes, compositions, classwork/ homework, in-class participation.
Link to Massachusetts Arts Curriculum Framework

Music Foundations II (1) **5 credits**

This course is designed to expand upon the principles of music theory, composition and arrangement taught in Music Foundations' introductory course. Students will learn new composition techniques, how to properly analyze musical pieces and how to arrange music for large ensembles. Students enrolling in this course must have completed Music Foundations 1 or have the permission of music teacher to enroll.

Assessments include tests, compositions, classwork, homework and in-class participation.
Link to Massachusetts Arts Curriculum Framework

Theatre: Overview

Theatre is a reflection of the world we live in. This fine art has a rich tradition of excellence at Joseph Case High School. Its academic study not only complements our Vision of the Graduate in a number of indicators, the formal classroom experience builds capacity and complements our co-curricular theater program.

Students in all grade levels workshop plays, read a variety of literature, and perform weekly. In the classroom, Drama students demonstrate **active learning, innovation, iteration and adaptability.** Their variety of text introduces them to a **global-minded perspective that includes responsibility, empathy and resilience.** Students are encouraged to be vulnerable, set high expectations and embrace their inner performer.

COURSE OFFERINGS

Drama I (1) 5 credits

This introductory theater arts class combines history, dramatic literature and performance to look at one of the world's oldest art forms through three lenses: as a reader, as a viewer, and as a performer. The class will tackle some of the greatest titles in classic and contemporary theater while providing students at all levels with a venue to develop and hone performance skills. Through a study of theater, students will gain greater insight about themselves and their world while developing a **shared responsibility** in the classroom, leading to **clear and effective communication, analysis, evaluation and creation in problem-solving.** Students will analyze and write critically as well as perform for their peers individually and in small groups.

Student assessment includes projects, written and oral assessments as well as in-class performance participation.

Link to Massachusetts Arts Curriculum Framework

Drama II(1) /Drama III (1)/Drama IV (1) 5 credits

Students will continue their exploration of history, dramatic literature and performance to look at one of the world's oldest art forms through three lenses: as a reader, as a viewer, and as a performer. In addition to seminal works in classic and contemporary theater, students in this advanced class will begin to approach theater from a director's perspective in Drama II, and from a playwright's vantage in Drama III..

Student assessment includes projects, written and oral assessments as well as in-class performance participation.

Link to Massachusetts Arts Curriculum Framework

Musical Theatre (1) 2.5 credits

Musical Theatre is a full-time, half-year course for juniors and seniors who have taken Drama I and Drama II as a prerequisite. Students will learn the history of the American musical theatre, focus on dance and music repertoire and perform in musicals. In addition to a performance focus, students will work on auditioning techniques, music theory, keyboard skills and physical conditioning and strength building. Musical theatre students will be exposed to hands on experience with the local community.

Student assessment includes, but is not limited to performance, dance, singing, musicality and auditions.

Link to Massachusetts Arts Curriculum Framework

Technical Theatre (1) 2.5 credits

Technical Theatre is a full-time, half-year course for juniors and seniors who have taken Drama I and Drama II as a prerequisite. Students will focus on developing their skills in all aspects of technical theatre. i.e. Set Design, Costume Design, Stage Management, Lighting Design, Sound Design and Property Design. Through projects and work on Mainstage productions, students gain the confidence and technique needed to become a skilled technician.

Student assessment includes, but is not limited to performance, written speeches, and critiques.

Link to Massachusetts Arts Curriculum Framework

Public Speaking 2.5 credits

Public Speaking is a full-time, half-year course for juniors and seniors that will develop and hone this important soft skill in communication to help students excel in their post-secondary pursuits. Students will learn a variety of speaking genres (i.e., demonstration, explanatory, persuasive, dramatic). In addition to a performance focus, students will learn to propose, research, and prepare speeches for a variety of audiences. Successful students will also fine tune their listening and analytic skills while witnessing and critiquing peer speeches.

Student assessment includes, but is not limited to performance, written speeches, and critiques.

Health & Physical Education

Department Overview

The Health and Physical Education Department supports Joseph Case High School's Core Values and Visions of the Graduates. The Department contributes an important aspect in the comprehensive, well-rounded educational program offered at the high school. Our Department is an integral part of a student's physical, emotional and social well-being and provides another discipline in which students can become fully educated and positively impact their life-long health.

Students will work independently and collaboratively. Students will communicate clearly and effectively, and gain a diverse, inclusive and global-minded perspective that including responsibility, empathy and resiliency. As a result, students develop positive health habits and attitudes by learning to protect, maintain and improve their own health and that of others. Through exposure to a wide variety of activities, students will gain the knowledge and understand the importance of making educated decisions to achieve and maintain a healthy lifestyle.

Through participation in physical activities, students will develop gross and fine motor skills. These skills are acquired through team sports, individual activities and fitness opportunities. Our goal is to instill the necessary knowledge and skills so students will value exercise and incorporate it into their daily lives.

A variety of independent and collaborative opportunities will enhance students' problem solving skills in all Physical Education offerings as well as Freshmen Academy. Physical Education courses meet every other day, Freshmen Academy and Child Care courses meet daily.

COURSE OFFERINGS

Freshmen Academy:
Health/PhysEd/Technology/Research (1) 5 credits

Freshmen Academy is a major grade 9 course that will provide all incoming Joseph Case High School freshmen with the fundamentals needed to be successful in high school. The Health/Phys Ed part of the class focuses on developing skills for finding and evaluating information and resources for making informed decisions, and for setting goals to promote a healthy lifestyle.

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Upon completion, students will identify life-management skills and protective factors that contribute to achieving personal wellness health goals, including researching, evaluating, and implementing strategies to manage personal wellness, monitor progress, and revise plans. Link to Mass. Comprehensive Health Curriculum Frameworks

The technology part of the class will provide students with the knowledge and resources to be adept at Google Apps for Education by surveying and utilizing the suite of applications available.

Research will be taught in conjunction with the school's librarian. Theoretical skills will be woven into practice as students learn to use the resources of our Learning Common to develop 21st century research skills in action.

Assessments include tests, quizzes, homework, presentations, participation, as well as individualized and group projects.

Physical Education (2)

Physical Education will provide students with opportunities to acquire the knowledge and skills necessary to live a healthy and physically active lifestyle. Students will participate in a variety of fitness activities to improve their personal level of fitness. Students will also develop the skills and knowledge necessary to participate successfully in lifetime activities as well as team and individual sports.

Students are assessed daily through class participation.

Link to Mass. Comprehensive Health Curriculum Frameworks

Phys Ed – full year is a traditional phys ed course that meets every other day opposite a directed stud, alternating its schedule during the second semester. **Phys Ed – semester** is an option for students who have chosen an elective one term, and will take phys ed during its opposite semester. **Unified Phys Ed** will pair one phys ed section with students from our ARCH program for an inclusive phys ed experience,

Child Care I (2) 5 credits

Child Care I explores the basic principles of child development. Influences of heredity and environment, biological factors of human reproduction, pregnancy, prenatal nutrition and development of the fetus, childbirth and the care of the infant and young child are studied in depth. Child Care I students are expected to develop and acquire the appropriate skills needed to work with young children in our laboratory preschool, ***Case's Little Faces***. This hands-on experience is a major component of this course. Child Care I is specifically for those students who are greatly considering working with children as a career choice.

Assessments include tests, response writing, interaction with children, computerized baby project and student created lessons

Link to Mass. Comprehensive Health Curriculum Frameworks

Child Care II (1) 10 credits

Child Care II is a school-to-career pathway. Child Care II is a course in early childhood education. Emphasis is placed on the skills and knowledge needed to work with young children. The physical, intellectual, social, and emotional development of the young child (birth to age 12), the guiding principles of discipline, the preparation of a safe and healthy environment, developmentally appropriate learning experiences for young children and the exploration of possible careers are studied extensively. The planning and operation of **Case's Little Faces** Preschool forms the foundation of this course. Students are required to complete six hours of community service, working with young children.

Assessments include tests, response writing, interaction with children, student created lessons, projects and portfolio building.

Link to Mass. Comprehensive Health Curriculum Frameworks

Child Care III (1) 5 credits

Child Care III continues the school-to-career pathway. Child Care III is an advanced level course in the area of child development and early childhood education. The curriculum for this course focuses on the student as a child care professional and the skills needed to work in various child care centers and agencies. Field placements, community service projects consisting of a minimum of 10 hours of community services working with children, field work experience hours, in school Teacher of the Day experience hours and the development of a portfolio are requirements of this course. After completing Child Care III, students are eligible to apply for teacher certification from the Department of Early Education & Care of Massachusetts. A letter of recommendation from the classroom teacher and a high school diploma are additional requirements for receiving this document.

Assessments include tests, response writing, interaction with children, student created lessons and instruction, projects, internship evaluations and portfolios.

Link to Mass. Comprehensive Health Curriculum Frameworks

History and Social Sciences

Department Overview

The History and Social Sciences Department curricula are directly driven by our school's Visions of the Graduate, offering a comprehensive study of both historical and behavioral studies. Through the use of both primary and secondary documents, students will be exposed to the historical events and trends that have shaped the modern world. All classes will effectively link past events with current issues, both in the United States and beyond. By

completing the History and Social Sciences graduation requirements, students will have acquired a global perspective of historical events, with a focus on the national and local issues that have shaped the future of our nation.

Through class discussions, Socratic Seminars, presentations, and other interactive lessons, students are actively involved in their own learning. Students engage as digital citizens, embracing technology to make inquiry robust and authentic, as demonstrated through the completion of research projects and research papers. Students work both independently and collaboratively to problem solve in order to be successful in all History and Social Sciences courses. There is an emphasis on shared responsibility for learning throughout our course curriculums.

We strive to prepare our students for a world beyond high school by placing an emphasis on critical reading and writing. We strive for excellence in writing both persuasively and analytically. Students will be able to form coherent arguments in the form of debates, persuasive essays and Socratic Seminars. Students are also expected to analyze primary documents and understand how they explain various historical events and time periods.

With the completion of the graduation requirements of United States History I, United States History II and World History II, students will be able to see the world as it has unfolded. They will be able to read a current news edition and see the evolution of those events through the global study of history. The goal is to effectively link past events with future events around the world in order to give students a global minded perspective. They will also be able to read, write and think in a critical manner that is conducive for preparation into any field.

COURSE OFFERINGS

World History II (1) and (2) 5 credits

In World History II, students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. The course focuses on the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Students will work both independently and collaboratively to problem solve in order to successfully complete this course.

This course includes assessments such as i-Note essays, Socratic Seminars, research papers, research projects, portfolio review, quizzes and exams.Students will also have to access and apply appropriate information via research to successfully complete all projects.

Upon completion of this course, students will be exposed to a global understanding of history, as they should be able to effectively link United States History with the history of the outside world. Students that complete and pass World History II have fulfilled their History and Social Sciences graduation requirements.

Link to the Mass. History/Social Science Frameworks

United States History I (1) and (2) 5 credits

United States History I establishes the groundwork for all subsequent high school history courses. United States History I , focuses on the research of historical events ranging from the American Revolution to the Gilded Age. Students will study about the important political and economic factors that led to the outbreak of the American Revolution through the consequences of the Civil War.

Students will work both independently and collaboratively to problem solve in order to successfully complete this course. Students will also have to access critical reading, writing, researching, presentation skills, and apply appropriate information via research to successfully complete all projects. Through research projects that require presentations, students will have to communicate clearly and effectively.

This course includes assessments such as essays, Socratic Seminars, research papers, research projects, quizzes and exams.

The completion of this course should not only provide a better understanding of early United States historical events,
but it should also allow students to develop critical reading, writing, researching, and presentation skills.

Link to the Mass. History/Social Science Frameworks

United States History I (Honors/Pre-AP)

United States History I establishes the groundwork for all subsequent high school history courses. United States History I Honors focuses on the research of historical events ranging from Pre Columbian American History to the Gilded Age. Students will study about the important political and economic factors that led to the outbreak of the American Revolution through the consequences of the Civil War.

Students will work both independently and collaboratively to problem solve in order to successfully complete this course. Students will also have to access critical reading, writing, researching, presentation skills, and apply appropriate information via research to successfully complete all projects. Through research projects that require presentations, students will have to communicate clearly and effectively.

This course includes assessments such as document based questions, expository and persuasive essays Socratic Seminars, Primary document analysis , research projects, quizzes and exams. These are used to put historical events in context and establish historical thinking. All assessments are based on the AP College Board examination.

The completion of this course should not only provide a better understanding of early United States historical events,
but it should also allow students to develop critical reading, writing, researching, and presentation skills.

Link to the Mass. History/Social Science Frameworks

United States History II (1) and (2) 5 credits

United States History II begins with events that occurred during the Progressive Era and continues with contemporary issues facing modern-day America, including the events of September 11, 2001, with a focus on how these events have both influenced and shaped the country.

Students will work both independently and collaboratively to problem solve in order to successfully complete this course. Students will also have to access and apply appropriate information via research to successfully complete all projects. Through research projects that require presentations, students will have to communicate clearly and effectively.

This course includes assessments such as essays, Socratic Seminars, research papers, research projects, portfolio review, quizzes and exams.

The completion of this course should give students a clear understanding of United States History and its impact on the modern day. Students taking United States History II are required to have passed United States History I. United States History II is a graduation requirement.

Link to the Mass. History/Social Science Frameworks

World History II (3) 5 Credits

World History II focuses on the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. The course focuses on the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions.

Students will be required to complete note outlines during classroom lectures, participate in discussions and complete projects and papers. Students will also be required to employ available technology through the completion of online lessons and powerpoint presentations. Students will be provided with accommodations and modification of content as delineated in the individualized education program.

Upon completion of the course, students will be able to access primary sources, demonstrate an understanding of the course content through written evaluations and student presentations, participate meaningfully in class debates, demonstrate an understanding of causes and consequences of historical events, and the impact of the events on both history and current issues.

Link to the Mass. History/Social Science Frameworks

U.S. History 9 & 10 (3) 5 Credits

U.S. History 9&10 is a special education course that focuses on the study of important political and economic factors that contributed to the outbreak of the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of America government, such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America's westward expansion, the establishment of political parties, and economic and social change. Finally, students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction. Students will also analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations.

The course's second year focuses on the causes, effects and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Students will study the goals and accomplishments of the Progressive Movement and the New Deal. Students will also learn about the various factors that led to America's entry into World War II as well as the consequences of World War II on American life. Finally, students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern-day America.

The class will focus on not just classroom lectures, but class discussions, projects, and papers. Students will be required to employ available technology by having students complete online lesson plans in class and outside of class and also completing powerpoint presentations. Students will be provided with accommodations and modification of content as delineated in the individualized education program.

Upon completion of the course, students will be able to access primary sources, demonstrate an understanding of the course content through written evaluations and student presentations, participate meaningfully in class debates, demonstrate an understanding of causes and consequences of historical events, and the impact of the events on both history and current issues.

Link to the Mass. History/Social Science Frameworks

Psychology (1) 5 credits

This class will cover various topics of interest in the field of psychology. The purpose of this class is to lay the foundations of psychology so students can use this information effectively at the next level. Students will learn about the origins of psychology and the multiple aspects of modern psychology. Topics include human behavior, cognitive abilities, social cognition and social interaction. Students will use the process of analysis to problem solve. This class will cover various topics of interest in the field of psychology. The purpose of this class is to lay the foundations of psychology so students can use this information effectively at the next level. Students will learn about the origins of psychology and throughout this course. This course requires the ability to access, evaluate and apply appropriate information throughout their use of technology.

This course includes assessments that are, but are not limited to, essays, Socratic Seminars, research papers, research projects, quizzes and exams.

Upon completion of this course, students will have a basic understanding of psychology that could serve as an introduction to a college psychology course.

The course will follow the National Curriculum for Psychology frameworks provided by the American Psychology Association.

Link to National Frameworks for Psychology

Economics (1) 2.5 credits

Economics is a full-time, half-year course for juniors and seniors that focuses on the impact that Economics has on the individual, the corporation, the nation, and the world. The study of how economics impacts all other liberal arts will also be examined. Students will also study introductory material dealing with marketing and business management, along with personal finance. Also, students will focus on soft skills that will be emphasized by having DECA simulations within the classroom. This course examines the allocation of scarce resources, and the economic reasoning used by consumers, producers, savers, investors, workers, voters, and government agencies. Students will be expected to complete multiple marketing projects that focus not just on the class material, but also on the ability of students to work independently and collaboratively to problem solve. Students will practice the interview process and learn personal finance strategies for investments.

Students will be assessed on essays, Socratic Seminars, research papers, quizzes and exams.

Upon completion of this course students will have gained an understanding of the impact that economics has on the individual, the corporation, the nation, and the world. Students will be familiar with the introductory material dealing with marketing and business management, allocation of scarce resources, the economic reasoning used by consumers' government agencies, along with personal.

Link to the Mass. History/Social Science Frameworks

Introduction to Law (1) 2.5 credits

Introduction to Law is a full time, half year course for juniors and seniors that focuses on the study and application of law within the United States. The course will focus on both criminal and civil law. Students will learn about the rules and regulations governing courtroom etiquette. There will be an introduction to evidence and its use within the courtroom, with a focus on how objections are used by attorneys to frame their case. Students will participate in trial simulations, learning how to strategize within the courtroom to best represent the client. Also, there will be a focus on the history of law, and its necessity in a liberated society. This course will also place a large emphasis on skills such as public speaking and written communication.

Issues in Contemporary America (2) 5 credits

Issues in Contemporary America is designed to help students understand issues and their responsibilities as citizens in the United States. Topics discussed range from personal problems, involving democratic culture and a diverse society to questions of crime and punishment, civil liberties, the environment, immigration economics, terrorism, and international relations. The Declaration of Independence, Constitution, and the Bill of Rights will be central topics throughout the course. Students will be expected to communicate clearly and effectively in class discussions, and to work independently and collaboratively to problem solve the social and cultural issues of the present day.

Students will also learn the importance of local history in light of Swansea's upcoming 350th anniversary and how its rich history has

shaped our community with regards to the first quarter of the 21st century.

Students will be assessed on essays, Socratic Seminars, research papers, quizzes and exams.

Upon completion of this course, students will understand the world around them and will be familiar with the issues that impact them the most, from voting rights qualifications, to college tuition costs, providing an authentic learning experience.

Link to the Mass. History/Social Science Frameworks

AP United States History 5 credits

Students will study American History from the time period of Columbus's voyage into the modern day. The class will provide an in depth analysis of the causes and effects of U.S. History and link past events to present issues in society. The class will be a preparation course for the AP United States History exam that will take place in early May. This course is an in-depth review of material student studied in their United States History courses. The course will focus on not only preparing students for that test, but also for the rigors of college studies. This course focuses on higher order thinking skills, and the ability to problem solve.

AP US History is a course that promotes high expectations. Exams that students take will be cumulative. Students are responsible for over six hundred years of history as part of AP US History. Primary sources are a central part of the course, and students will be expected to utilize their higher-order thinking skills.

Course assessments include Socratic Seminars, papers, document based questions and essay-style quizzes. There is a focus on writing throughout this course, with the expectation being that students will communicate clearly and effectively. Upon completion of this course, students will be prepared for the Advanced Placement exam and the rigors of post-secondary education in the field of History and Social Sciences.

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here.

AP United States Government and Politics 5 credits

AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments.

Course assessments include Socratic Seminars, papers, document based questions and essay-style quizzes. Assessments may mirror the national exam that combines multiple choice questions with free responses. There is a focus on writing throughout this course, with the expectation being that students will communicate clearly and effectively. Upon completion of this course, students will be prepared for the Advanced Placement exam and the rigors of post-secondary education in the field of History and Social Sciences.

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here.

Applying Skills in Authentic Situations: **Business**

The Joseph Case High School's business courses focus on **independence, collaboration and problem-solving**. Students are given **authentic learning opportunities** through training in the field of business and accounting. The purpose of these courses is to provide a sound foundation in the accounting and business fields to meet the future needs of secondary students, whether post-secondary or in day-to-day life. All students' futures will benefit from financial literacy perspectives ranging from general overview (Into to Business) to specific skills sets (Accounting).

COURSE OFFERINGS

Accounting I (1) 5 credits

In a recent blog about WHY take accounting in high school, one high school teacher reached beyond the obvious. The teacher notes that a 21st century high school accounting course should address the following:

- Understand the language of business
- Analyze business transactions
- Prepare and analyze financial documents
- Research business topics on the Internet
- Use spreadsheet software

After mastering the basics of accounting, students will have have more detailed experiences through the financial and managerial accounting lenses. This course is aligned with the NBEA Standards in Accounting.

Student assessment will include, but is not limited to, quizzes, test exams, projects and business simulations as assessments

The aforementioned teacher also documented the parallel authentic learning experiences gained: "You will learn skills that employers need all employees to possess – problem solving, critical thinking, organization, accuracy, integrity, business ethics, and technology."

Introduction to Business (1) 5 credits

Introduction to Business is a full-year course that will provide students with tools, perspectives and authentic experience with a variety of business domains. Among the areas that will be student in depth are strategic management, organizational behavior, business technology, basic marketing and finance.

Business students will embrace the school's Visions of the Graduate in their business studies to strengthen their skillbase in communication, collaboration, innovation, problem-solving, digital citizenship, and global-mindedness.

Students are assessed through class participation as well as individualized and group projects that mirror tasks completed in the business world. Assignments are authentic in their application.

Entrepreneurship 2.5 credits

The National Federation of Independent Business offers an Entrepreneur-in-the-Classroom program that looks to inspire students to the risks and rewards of small business. Moving beyond the "lemonade stand" strategy of idea / execution / accounting, this class hopes to have students create new ideas and test their validity.

Please note that this course meets half-year..

Students in our business course of study are encouraged to take Public Speaking (859) with this half-time course to enhance and complement your Entrepreneurship experience.

Students will not be assessed traditionally. Class will be standards-based, utilize student input and reflection to determine progress, and will embrace the "gradeless" classroom model. The onus of the class is on 21st century presentations that will incorporate business planning, marketing, and development.

School to Career Internships **0 credits**

All seniors will be allowed to participate in one 18-24 hour internship in a pathway of their choice. Possible pathways may include but are not limited to the medical, criminal justice, child care, education, finance, technical theater, and technology fields.

The goal of the internship program is to provide students with an authentic opportunity to observe possible career paths that they may be interested in pursuing after High School. We work with the local community to place students in internships that will engage them in outside learning opportunities. It is our goal to allow students to have a diverse learning experience by providing them with a unique perspective to various career pathways.

Students wishing to pursue an internship must contact the school to career director in order to facilitate the internship. Students must gain permission from both the administration and their parental guardians in order to be eligible. The school to career director must be given a notarized permission form before the internship may take place.

Mathematics

Department Overview

The mathematics program offerings reflect an awareness that we live in a complex age in which mathematics and technology play an increasingly important role for society and the individual alike. Driven by the school's Core Values, the mathematics program will help prepare students for this challenge through learning experiences consistent with their abilities, needs, and aspirations. Students will become lifelong learners through learning guided by the school's Visions of the Graduate.

An understanding of mathematics allows students the capability to adapt to a continuously changing, technical world. Challenging students and having them achieve mathematical power through problem solving, communicating, reasoning, connecting, and modeling develops these skills. In order to give all students the opportunity to become lifelong learners and productive members of society, we promote learning as an enterprise shared by staff, parents, students, and the community. The courses offered by the mathematics department requires students to use mathematics and technology effectively, **work independently and collaboratively to problem solve**, and **apply processes of analysis, integration, evaluation and creation in problem-solving.**

The mathematics curriculum follows the guiding principles of the Massachusetts Mathematics Curriculum Framework through exploration of mathematical ideas in ways that stimulate curiosity, create enjoyment of mathematics, and develop depth of understanding, and build upon and develop students' literacy skills and knowledge. The Department utilizes varied forms of assessment of student learning in mathematics to inform instruction and learning. The core subjects for all students include Integrated Math 9, Geometry and Integrated Math 9I. Beyond this, a range of opportunities exists for students to broaden and refine their mathematical skills through specialized and advanced courses.

Mathematics is taught using the "rule of four" method for the teaching of mathematics: 1) numerically, 2) visually or graphically, 3) algebraically, and 4) verbally (communication: reading, writing, listening, and speaking). The six conceptual strands are interwoven throughout the curricula: 1) number and quantity, 2) algebra, 3) functions, 4) modeling, 5) geometry, and 6) statistics and probability.

Calculators are required in all mathematics courses in order that students may 1) concentrate on the problem-solving process rather than on the calculation associated with problems, 2) gain access to mathematics beyond the students' level of computational skills, 3) explore, develop, and reinforce concepts including estimation, computation, approximation, and number properties, 4) experiment with mathematical ideas and discover patterns, and 5) perform those tedious computations that arise when working with real data in problem-solving situations. Students must provide their own calculators. Scientific calculators are necessary for all level 2 classes and for level 1 courses. Graphing calculators are required for the AP/Honors courses Integrated Math 9I, AP Statistics, Pre-Calculus and Calculus.

COURSE OFFERINGS

Integrated Math 9 (1) **5 credits**

Algebra I and Geometry A

This course is for students entering the ninth grade who have successfully completed pre-algebra or have a limited introduction to Algebra in the eighth grade. The course balances sound skill and concept development through applications, making connections, problem solving, critical thinking, and technology. Topics include algebraic manipulation, functions, linear relationships, linear models, congruence, and the Pythagorean Theorem. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.

Upon completion of Integrated Math 9, students will have gained an understanding of the symbolic language of algebra and geometry, and acquired abstract reasoning skills necessary to excel in math and science.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 9 (2) **5 credits**

Algebra I and Geometry A

This course is for ninth grade students whose previous pre-algebra math pathway would necessitate greater algebraic skill-building. This course is designed to increase foundational math proficiencies while navigating the Massachusetts Mathematics Curriculum Frameworks' Model Mathematics I standards. Topics include algebraic manipulation,

functions, linear relationships, linear models, congruence, and the Pythagorean Theorem. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.

Upon completion of Integrated Math 9, students will have gained an understanding of the symbolic language of algebra and geometry, and acquired abstract reasoning skills necessary to excel in math and science.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 9 (3) **5 credits**

Algebra I and Geometry A

This course is for students entering the ninth grade on an Individualized Education Program who would require specialized math services because of a disability. This course is designed to increase foundational math skills and offer the Massachusetts Mathematics Curriculum Frameworks' Model Mathematics I standards. Topics include algebraic manipulation, functions, linear relationships, linear models, congruence, and the Pythagorean Theorem. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, project and homework.

Upon completion of Integrated Math 9, students will have gained an understanding of the symbolic language of algebra and geometry, and acquired abstract reasoning skills necessary to excel in math and science.

Link to the Mass. Curriculum Math Frameworks

Honors Geometry (H) **5 credits**

Suggested guidelines: successful completion of Algebra I in the eighth grade or a B or better in Integrated Math 9 (1).

This course is for students entering the tenth grade who have a strong foundation in Integrated Math 9. This is a challenging course in plane and solid geometry using a rigorous approach with respect to traditional topics of Euclidean geometry, its language and its structure. There is an emphasis on deductive reasoning and students will be expected to complete and create both formal and informal proofs. The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Geometry standards. Topics include relationships among lines, angles, congruence, similarity, polygons, triangles, area, volume, transformations, constructions, and coordinate geometry. The depth of understanding geometric concepts along with strong connections to algebra through coordinate geometry is stressed.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Assessments require students to use higher order thinking skills by applying concepts that they have learned to new situations. *Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.*

After completion of Geometry, students should have mastered the concepts required for the detailed development of advanced topics in Algebra.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 10 (1) **5 credits**

Geometry B and Algebra II

Suggested guideline: successful completion of Integrated Math 9 (1).

This course is for students entering the tenth grade who have successfully completed Integrated Math 9 (1). The course balances sound skill and concept development through applications, making connections, problem solving, critical thinking, and technology. Algebraic language, structure, concepts, and skills are emphasized. The course fully integrates content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Model Mathematics II standards. Topics include laws of exponents, quadratic functions, creation of linear , exponential and quadratic expressions, probability, and similar figures. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, project and homework.

After completion of Integrated Math 10, students should have mastered the concepts required for the detailed development of advanced topics in Precalculus and Trigonometry.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 10 (2) **5 credits**

Geometry B and Algebra II

Suggested guideline: completion of Integrated Math 10 (2).

This course is for students entering the tenth grade who have successfully completed Integrated Math 9 (2). The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Model Mathematics II standards. Topics include laws of exponents, quadratic functions, creation of linear , exponential and quadratic expressions, probability, and similar figures. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

After course completion, students will have the foundation to continue their studies of algebra and trigonometry.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 10 (3) **5 credits**

Geometry B and Algebra II

This course is for students traditionally in grade 10 on an Individualized Education Program who would require specialized math services because of a disability. This course develops the understandings of the major concepts of Euclidean geometry. Using both an inductive and deductive approach to the study of plane and solid figures, students should be able to justify their work using definitions, postulates and theorems. The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks Model Mathematics II standards. Topics include laws of exponents, quadratic functions, creation of linear , exponential and quadratic expressions, probability, and similar figures. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.

After course completion, students will have the foundations to continue studies in mathematics.

Link to the Mass. Curriculum Math Frameworks

Algebra II (H) 5 credits

Suggested guidelines: A- or better in Integrated Math 9 (1) or C or better in Geometry (H).

This is an intensive and rigorous critical thinking course. Emphasis is placed on the understanding of the process and theory of various techniques, as well as on problem-solving and modeling data. The necessity to understand the concepts is much stronger in Integrated Math 9I and requires that students have a solid background in Integrated Math 9, hence little review will occur. The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Integrated Math 9I standards. Major topics include a study of sets; functions, transformations, and conics; theory of equations, real and complex numbers; logarithms; exponential functions; mathematical modeling; sequences and series; and matrices. Use of a graphing calculator is an essential component of this course. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

Upon completion of this course, students will be more proficient in the application of technology in the study of mathematics and will have acquired the skills necessary to student advanced topics in mathematics.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 11 (1) 5 credits

Precalculus and Trigonometry

Suggested guideline: C or better in Integrated Math 11 (1).

This course is for students entering the eleventh grade. This course reinforces and builds upon the concepts covered in Integrated Math 9 (1) and Integrated Math 10 (1). Emphasis is placed on the understanding of the process and theory of various techniques, as well as on problem-solving and modeling data. The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Model Math 11 standards. Major topics include a study of sets; functions, transformations, and conics; theory of equations, real and complex numbers; logarithms; exponential functions; mathematical modeling; and matrices. Use of a graphing calculator is an essential component of this course.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

After successful completion of Integrated Math 11, students will have the necessary skills to study topics in calculus and statistics.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 11 (2) 5 credits

Algebra, Statistics and Personal Finance

Prerequisites: Successful completion of Integrated Math 10.

Integrated Math 11 topics include linear, quadratic, and exponential functions. Topics in Statistics include sampling, controlled experiments, and gathering, displaying, and analyzing data. Topics in Personal Finance focus primarily on income and money management.

Students are required to use technology on a daily basis in this course. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.

Upon completion of this course, students should have mastered a variety of skills in algebra including the ability to solve algebra word problems and apply the principles of algebra to solving "real world" problems.

Link to the Mass. Curriculum Math Frameworks

Pre-Calculus and Trigonometry (H) 5 credits

Suggested guidelines: A- or better in Integrated Math 10 or successful completion of Algebra 2 (H).

This course is recommended for future Science, Technology, Engineering, Mathematics, or Finance majors.

This is an intensive and rigorous critical thinking course intended to prepare students for an in-depth study of calculus. Emphasis is placed on the understanding of the process and theory of various techniques, as well as on problem-solving and modeling data. This course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks' Pre-Calculus standards. Major topics include a study of functional and graphical analysis; functional and analytical trigonometry; complex numbers and polar coordinates; conic sections; vectors; systems and matrices; sequences and series; and limits. Students will use the graphing calculators regularly and is an essential component of this course.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 12 (1) 5 credits

Suggested guideline: C or better in Integrated Math 11 (1).

This course provides students with an introduction to calculus, statistics and number theory. Emphasis is placed on both conceptual understanding and practical applications. The course is designed to integrate content from all mathematical strands as prescribed by the National Council of Mathematics Teachers.. Other major topics include a study of limits, derivatives, integrals, sampling techniques, sampling distributions, and inference techniques.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when

problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

Upon completion, students should be able to solve practical problems, using appropriate models for analysis and prediction.

Link to the Mass. Curriculum Math Frameworks

Integrated Math 12 (2) **5 credits**

Prerequisite: Successful completion of Integrated Math 11 (2).

The primary emphasis of this course is on how math informs daily decision making by companies, organizations and individuals. This course develops understanding in Algebra, Statistics and Personal Finance with this emphasis in mind. Topics in Algebra include exponential and logarithmic functions, sequences and series, and linear programming. Topics in Statistics include normal distributions, probability, and linear regression. Topics in Personal Finance focus on establishing credit, taxes, and financial planning. Students are required to use technology on a daily basis in this course. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects and homework.

Upon completion of this course, students should have mastered a variety of skills in algebra, statistics and personal finance including the ability to create and use exponential and logarithmic functions, create and run experiments involving more than one variable, and create an individual financial plan.

Link to the Mass. Curriculum Math Framework

Mathematics 11/12 (3) **5 credits**

Mathematics 11/12 is a two-year special education course that addresses Algebra concepts. Instruction content continues to reinforce the mastering of algebra. Through individual pacing and group instruction, students will focus on more advanced topics in Algebra. The content of this course has more flexibility based upon the needs of the students. Students may continue reinforcing key concepts on the MCAS if the needs of the class necessitate this. Practical math skills may also be the focus. Topics such as personal financing, budgeting, etc. will be the focus, which enable students to apply real life concepts that are needed post-graduation.

Assessment will include class participation, notebook and binder checks, homework, tests and quizzes.

Upon completion of the course, students should have acquired a foundation of algebraic skills needed to achieve a passing score on the MCAS and continue to a post-secondary experience supportive of individualized needs to compensate for content disabilities.

Link to the Mass. Curriculum Math Frameworks

Calculus (1) **5 credits**

Suggested guidelines: B or better in Pre-Calculus/Trig(1) or C or better in Pre-Calculus/Trig (H).

This course is recommended for future Science, Technology, Engineering, Mathematics, or Finance majors.

This course introduces the student to the fundamentals of analytic geometry and calculus. Students review and extend their concepts of all elementary functions (polynomial, rational, logarithmic, exponential, piecewise, and trigonometric) and their graphs. Major concepts include limits; derivative and its applications; and definite and indefinite integration and its applications. Students will be exposed to many types of applications and to some of the theory behind calculus. Use of the graphing calculator will be a component of this course.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

Upon completion of this course, students will have obtained the skills necessary to deal with, develop and understand models in engineering and science.

Link to the Mass. Curriculum Math Frameworks

AP Calculus AB **5 credits**

Suggested guideline: B or better in Pre-Calculus/Trig (H).

This course is recommended for future Science, Technology, Engineering, Mathematics, or Finance majors.

This course is designed for the advanced mathematics student. Students review and extend their concepts of all elementary functions (polynomial, rational, logarithmic, exponential, piecewise, and trigonometric) and their graphs. It covers the entire syllabus for Advanced Placement as prescribed by the College Board and is comparable in content and emphasis to a college freshman course. Major concepts include limits; derivative and its applications; and definite and indefinite integration and its applications. Emphasis is placed on strong conceptual understanding with the integration of graphical, numerical, and analytical, approaches to calculus. Students will use the graphing calculators regularly and is an essential component of this course. Students enrolled in this course will take the Advanced Placement Calculus AB Exam in May and must encumber the expense of the exam.

Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving. Students become more proficient in the application of technology in the study of mathematics.

Student assessments include, but are not limited to, tests, quizzes, open-response questions, projects, and homework.

Students will be prepared to successfully complete the AP Calculus AB examination upon completion.

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here.

AP Statistics **5 credits**

This course is recommended for all students who are looking to challenge themselves in the field of mathematics.

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. Prerequisite: Students must have taken second-year algebra before enrolling in AP Statistics.

Use of Graphing Calculators and Computers: Professional mathematics organizations have strongly endorsed the use of calculators in mathematics instruction and testing. The use of a graphing calculator in AP Statistics is considered an integral part of the course.

Goals of AP Statistics

Students who are enrolled in AP Statistics are expected to:

- Describe patterns and departures from patterns
- Plan and conduct a study
- Explore random phenomena using probability and simulation
- Estimate population parameters and test hypotheses

For 2019-2020, the national testing fee for this exam was $94. More info from College Board, click here

Science

Department Overview

The Science Department has established the goal that all of our students achieve scientific literacy. Consistent with the National Standards in Science and driven by our school's Vision of the Graduate, our curriculum and course offerings have been designed to prepare students for individualized post-secondary pathways.

The Department maintains high standards of student performance and expectations of student learning and achievement. Courses offer labs and experimentation allowing students many opportunities to **problem-solve** as they develop their ability to analyze, evaluate, and create responses to inquiries grounded in authentic, real-world topics. Students develop and demonstrate these abilities via both **independent and collaborative work.**

All students are encouraged to participate in our school science fair. The course offerings are organized by the themes in science and students' skill levels. These themes, as well as the connection of science with society and technology, continue through the grade levels so that the student is provided with an opportunity to grow in skill, habits of mind, and understanding of content. These themes, transitioned from grade eight, are progressive and developmental in terms of the student progression through the core curriculum and into the various pathways. The Department offers a variety of electives. Advanced placement courses are offered, with our students historically scoring well above the national average.

Students and parents are strongly encouraged to review the course offerings listed here. Questions should be directed to the Department Head or Guidance Department.

COURSE OFFERINGS

General Science (H) **Lab Course: 6 credits**

This course meets the ninth grade science requirement, but is designed for the highly motivated, mathematically talented grade nine student who wishes to study physics for the purpose of exploring possible careers in physics, chemistry or engineering. The focus of this course is the study of the physical sciences of physics and chemistry with the emphasis on physics. The curriculum is designed to prepare the students for the Massachusetts Comprehensive Assessment System (MCAS) Test scheduled for June of the freshman year. A suggested average of A- or higher in grade eight science and math is recommended. Students electing this course should be prepared to maturely complete 3–4 hours of homework per week. Additionally, development of an experimentally oriented science project will be required during terms 2 and 3. Students will also be required to present their project in the Science Fair.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, and numerous performance task assessment.

Upon completion of this course, students will have acquired a foundation of scientific skills and habits of mind that comprise the scientific method. In addition they will have learned the content necessary to excel in later honors and AP courses.

Link to the MA STE Learning Standards

General Science (1) **Lab Course: 6 credits**

This course meets the ninth grade science requirement. The focus of this course is the study of the physical sciences of physics and chemistry, with the emphasis being on physics. In this course the scientific method receives a great deal of emphasis through directed and open-ended laboratory experiments and hands-on activities. The curriculum is designed to prepare the students for the Massachusetts Comprehensive Assessment System (MCAS) Test scheduled for June of the freshman year.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, and numerous performance task assessments.

Upon completion of this course students will have acquired a foundation of scientific skills and habits of mind that comprise the scientific method. In addition they will have learned the content necessary to excel in later courses.

Link to the MA STE Learning Standards

Physical Science (3) **Lab Course: 6 credits**

Physical Science (3) is a modified physics course for 9th grade special education students whose content includes velocity and acceleration, displacement, mechanical energy, states of matter and heat transfer. The course engages students as active learners and encourages inquiry and problem-solving skills in response to teacher-demonstrations. Students will be required to create and interpret one-dimensional graphs, apply laws of science to authentic learning situations, identify origins of problems and possible solutions of real-world problems.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, class participation, student projects, and MCAS-based assessments.

Upon completion of the course, students should have acquired a foundation of knowledge in physics to successfully complete the physics MCAS test, as well as the skills to succeed in tenth grade biology.

Link to the MA STE Learning Standards

Biology Honors (H) **Lab Course: 6 credits**

This course is offered to grade 10 students. Designed to meet the needs of the highly motivated students who wish to consider a career in the biological sciences or medical fields, honors biology is structured upon the presentation of more in-depth coverage of the complex concepts and processes involved in the mature study of biology. The curriculum is designed as a Pre-AP Biology course. It is expected that students enrolled in this course will consider taking AP Biology.

Through a combination of lecture, laboratory experiences, computer simulations, etc., the focus is placed on individual and group work with research problems assigned to each student. Biology is studied at the molecular, physiochemical, organismal and population levels. Active participation in the frog dissection unit is a course requirement. During Terms 1 and 2 students will complete a science fair project and enter it in the school science fair. During terms 3 and 4 students will complete a semester-long project that may be current event or nonfiction reading related. Additionally, a summer reading and writing assignment, due within the first week of school, may be a requirement for this course.

Student assessment may include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, task assessments and a summer reading assignment.

Upon completion of Biology students will have enhanced their scientific skills and habits of mind required to comprehend science. In addition they will have learned the content necessary to excel in honors and AP courses.

Link to the MA STE Learning Standards

Biological Science (1) **Lab Course: 6 Credits**

The college preparatory biology course stresses the basic biochemical processes characteristic of living matter with special emphasis on the complementary relationship of structure and function. The curriculum is aligned with the Biology portion of the Massachusetts Science, Technology, and Engineering Learning Standards. In this course students will be expected to apply the concepts presented in a comparative study of the Five Kingdoms in which unity and diversity of structure and function are developed as connecting threads. A mixture of lecture, discussion, hands-on laboratory experiences, and teacher demonstrations make this inquiry-based program challenging and exciting. Current issues in biology and technology are pulled into the classroom discussions often allowing students to see how biology affects their everyday lives. Particular emphasis is placed on DNA technologies and their ramifications on student lives and futures. Students are strongly encouraged to expand their experiences and enhance their portfolios by entering our School Science Fair.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments.

Upon completion of Biology, students will have enhanced scientific skills and habits of mind required to comprehend science. In addition they will have learned the content necessary to excel in later courses.

Link to the MA STE Learning Standards

Biology (2) **Lab Course: 6 credits**

Biology (2) stresses the basic biochemical processes characteristic of living matter with special emphasis on the complementary relationship of structure and function. Students will apply the concepts learned to compare the Five Kingdoms of organisms and their relationship to the environment. The course is designed for students who have not committed to a four-year traditional post-secondary route. Students in Biology (2) who did not achieve a passing score on the "Introduction to Physics" MCAS will be required to take the Biology MCAS in June.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, class participation, student projects, labs and MCAS-based assessments.

Upon completion of the course, students should have acquired a foundation of knowledge in biology to successfully complete the biology MCAS, as well as the skills to advance to Integrated Science 11 (2).

Link to the MA STE Learning Standards

Biology (3) **Lab Course: 6 credits**

Biology (3) is a tenth grade special education course that focuses on evolution and ecology, cell anatomy, and life structures. The course engages students as active learners and encourages inquiry and problem-solving skills in response to teacher-demonstrations. Students will be required to replicate cell structure, participate in class activities and connect biology content to their own lives. Students in Biology (3) who did not achieve a passing score on the "Introduction to Physics" MCAS will be required to take the Biology MCAS in June.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, class participation, student projects, and MCAS-based assessments.

Upon completion of the course, students should have acquired a foundation of knowledge in biology to successfully to advance to General Science 11 and 12 (3).

Link to the MA STE Learning Standards

Integrated Science 11(2) **Lab Course: 6 Credits**

This course includes associated labs, related experiences and hands-on activities and their applications.

In this course students will be expected to gain knowledge from printed text, communicate clearly and effectively and become active learners, demonstrating innovation and adaptability. During terms 1 and 2 the focus is on general chemistry. During terms 3 and 4 the focus switches to special topics.

Students assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, research, projects, lab reports and tests, presentations, and numerous performance task assessments.

Upon completion of o this course, students will have gained the necessary enhancement of their scientific skills and habits of mind to the level required to comprehend science. In addition they will have learned the content necessary to continue their studies beyond Joseph Case High School so as to work in health care and related medical fields.

Link to the MA STE Learning Standards

General Science 11 and 12 (3) **Lab Course: 6 credits**

General Science 11 and 12 is a modified science course for special education students in the 11th and 12th grade. The course focuses on preliminary content needed for health-care and related medical fields including dental hygiene, medical technology and other assistant-related occupations. Content is presented in relation to a wide variety of real contexts. Students will be required to utilize a problem-based active learning model, demonstrate understanding though individualized and group projects and participate in class discussions.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, student projects and presentations.

Upon completion of the course, students will have been exposed to a variety of career-based content to help facilitate a successful transition to a post-secondary technical program.

Link to the MA STE Learning Standards

Chemistry (1) **Lab Course: 6 Credits**

Chemistry is the study of interactions of matter that involve a change in identity or energy. General laws, current theories and laboratory techniques are emphasized. Lecture, discussion, and lab activities, along with the use of current software, make this course especially ideal for those students planning to attend college in the fields involving scientific research and medicine. *A modest summer assignment is required.*

In this course students will be expected to use the skills and knowledge of the concepts and learned in Integrated Mth 10. Students will be expected to communicate clearly and effectively in their written

work and work independently and collaboratively to solve problems in both a lab and classroom setting.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation projects, and numerous performance task assessments.

Upon completion of Chemistry, students will have enhanced their scientific skills and habits of mind required to comprehend science. In addition they will have learned the content necessary to excel in later courses.

Link to the MA STE Learning Standards

Physics (1) Lab Course: 6 credits

Physics is a survey of eight energy forms and their interactions with matter. In this course, emphasis is placed on the measurement of physical variables and their analysis. The teaching methodology is a mixture of lecture, discussion, demonstrations, laboratory, student projects and presentations and field trips.

In this course students will be expected to use the skills and knowledge of the concepts and learned in Integrated Math 10. Students will be expected to communicate clearly and effectively in their written work and work independently and collaboratively to solve problems in both a lab and classroom setting.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments.

Upon completion of Physics, students will have enhanced their scientific skills and habits of mind required to comprehend science. In addition they will have learned the content necessary to excel in physics courses in college.

Link to the MA STE Learning Standards

Advanced Biology (H) Lab Course: 6 credits

This is a full-year course designed for college prep students who are interested in biology or the medical fields as possible professions but who are not interested in taking the AP Biology exam. Students in Advanced Biology Honors will be in the same classroom as AP Biology, learning content that mimics a college freshman biology course. Honors Advanced Biology students will survey all of the major topics of biology at an advanced level.

Students will be expected to gain knowledge through lecture, text materials, lab activities, case studies, and outside reading. In addition students will be expected to work independently and collaboratively in the lab. Independent reading of the text and current primary periodical literature is required in this course.

An introductory summer reading/writing assignment may be required. Students will be expected to have completed Chemistry or be concurrently enrolled in Chemistry to elect this course. Please note there is a significant statistical analysis portion to this course. Active participation in dissection is encouraged.

Upon completion of Advanced Biology, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the biology content necessary to excel in rigorous later courses.

Link to the MA STE Learning Standards

Human Anatomy/Physiology (1) Lab Course: 6 Credits

This course is designed for a student who wishes to consider or enter a profession in health services at a 2 or 4 year college. In this course, students will be expected to work independently and collaboratively and to problem solve and be active learners, demonstrating innovation and adaptability in order to receive in-depth coverage of the systems of the human body with a heavy emphasis on the cell/molecular and clinical mechanisms involved. Active participation in dissections, especially of a fetal pig, is a requirement in this course.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and outside reading.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science. In addition they will have learned the introductory content necessary to be successful in anatomy in higher education courses.

Link to the MA STE Learning Standards

Human Anatomy and Physiology (H) Lab Course: 6 Credits

This course is designed for those students who wish to consider or enter a profession in the biological or medical fields. Students will receive in-depth coverage of the systems of the human body with a heavy emphasis on the cell/molecular and clinical mechanisms involved. In this course, students will be expected to work independently and collaboratively to problem solve and be active learners, demonstrating innovation and adaptability. Active participation in dissections, especially of a fetal pig, is a requirement in this course.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and outside reading.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science. In addition they will have learned the introductory content necessary to be successful in anatomy in higher education courses.

Link to the MA STE Learning Standards

Chemistry I (H) Lab Course: 6 Credits

Honors Chemistry is a rigorous course designed for highly-motivated, high-ability students who plan to continue their study of chemistry in college. This accelerated course is the first part of the two-year sequence that combines to form the AP Chemistry course. The course offers in-depth study of atomic theory and structure, stoichiometry, chemical thermodynamics, and the chemistry of solutions. Labs are "college level" and many are extended labs that are carried out over a number of days. *A modest summer assignment is required.*

Students are expected to be active learners, demonstrating innovation and adaptability in problem-solving, qualitative and quantitative laboratory analysis, and to work independently and collaboratively to gain knowledge of current topics in chemical research. Students will be expected to remember and use a strong background in advanced mathematics. This course is beneficial for students who later select Advanced Placement Chemistry.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, internet research, long and short term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments. In addition to those noted, numerous Lab Practical Tests and Lab Identification of Unknowns are conducted.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in AP or college chemistry courses.

Link to the MA STE Learning Standards

Physics (H) **Lab Course: 6 credits**

Students in Physics Honors will be in the same classroom as AP Physics. Honors Physics is a rigorously structured course designed primarily for students who have a strong interest in studying one of the physical sciences or engineering in college. The curriculum is aligned with the AP Physics 1: Algebra-Based topics.

In this course the students will be expected to be active learners, demonstrating innovation and adaptability in problem-solving, qualitative and quantitative laboratory analysis, and work independently to gain knowledge of current topics in chemical research. Students will be expected to remember and use a strong background in advanced mathematics.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments In addition to those noted, written tests consist of AP multiple choice and essay questions. Additionally, during Term 3, a significant portion of a student's grade may be based on the research/experimentation project.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in college physics courses.

Link to the Mass. Science Curriculum Frameworks

Special Topics in Science (12) **Lab Course: 6 credits**

This full-year course for seniors introduces students to topics in science that are chosen from, but are not restricted to, environmental science, energy conversions, marine biology and oceanography. The emphasis of each topic choice is the relevance to the lives of the students. To that end, discussions of current issues in science are included during the study of each topic. Environmental science topics include climate change. Energy conversion topics include solar panels and other non-fossil fuel conversions to electricity. Oceanography topics include chemical and physical oceanography. The marine biology focus is on life cycle, anatomy and physiology, adaptations and ecosystem interactions.

A mixture of lecture, discussion, hands-on laboratory experiences and teacher demonstrations make this inquiry-based program challenging and exciting.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments.

Upon completion of Special Topics in Science, students will have enhanced their scientific skills and habits of mind required to comprehend science, and they will have learned the content necessary to excel in later courses. In addition, students will improve their skills in order to communicate clearly and effectively both verbally and in writing.

Link to the Mass. Science Curriculum Frameworks

AP Chemistry **Lab Course: 6 credits**

The AP Chemistry course is designed to be the equivalent of a college introductory chemistry course usually taken by chemistry majors during their first year of college. The curriculum is aligned with the AP Chemistry topics. Students who pass the exam may have their college chemistry requirement waived, enabling the student to elect other college courses. Students who intend on taking AP Chemistry must take Chemistry I Honors (Sci. 430) in their junior year. For a student to have a designation of AP Chemistry on their transcript they must have prior permission of the instructor and their guidance counselor to challenge AP Chemistry. The student would be required to encumber the expense of taking the AP exam.

In this course, students are expected to be active learners, demonstrating innovation and adaptability. There is heavy emphasis on problem-solving. In addition, the students are expected to work independently and collaboratively during the qualitative and quantitative laboratory analyses. Students are expected to remember and use a strong background in advanced mathematics. Students will have their best chance for success if they perform the summer review of their first year chemistry work.

Student assessment will include, but is not limited to, written tests, essay and open-ended questions, portfolio assessment, journal writing, Internet research, long and short-term projects, lab reports, lab practical tests, individual and group presentations, research/experimentation project, and numerous performance task assessments. In addition to those noted, numerous Lab Practical Tests and Lab Identification of Unknowns are conducted. A significant portion of written tests consist of AP multiple choice and essay questions. Additionally, during Term 3, the student's grade may be based on the research/experimentation project.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in rigorous college chemistry courses.

For more information and current testing fees, please visit the College Board website.

AP Physics 1: Algebra-Based **Lab Course: 6 Credits**

The AP Physics 1: Algebra-Based course is designed to be the equivalent of a college introductory physics course usually taken during their first year of college by those considering an engineering or physics major. The curriculum is aligned with the AP Physics 1: Algebra-Based Learning Objectives. Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Students who pass the exam may have their college physics requirement waived, enabling the student to elect other college courses.

Students who intend on taking AP Physics need to have a very strong math background. To that end, a grade of A- or above in MA 231 (Pre-Calculus Honors) is recommended for election of this course. For students to have a designation of AP Physics on their transcript they must have prior permission of the instructor and their guidance counselor. AP Students are required to encumber the expense of taking the AP exam..

In this course, the students will be expected to be active learners, demonstrating innovation and adaptability has a heavy emphasis on problem-solving. In addition the students will be expected to work independently and collaboratively during the qualitative and quantitative laboratory analyses. Students will be expected to remember and use a strong background in advanced mathematics.

Student assessment will include written tests, essay and open-ended questions, internet research, lab reports, lab practical tests, individual and group presentations. A significant portion of written tests consist of AP multiple choice and essay questions. Additionally, during Term 3, the student's grade may be based on the research/experimentation project.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in rigorous college engineering and physics courses.

For more information and current testing fees, please visit the College Board website.

AP Physics 2: Algebra-Based **Lab Course: 6 Credits**

The AP Physics 2: Algebra-Based course is designed to be the equivalent of a college introductory physics course usually taken during their first year of college by those considering an engineering or physics major. The curriculum is aligned with the AP Physics 2: Algebra-Based Learning Objectives. Students explore principles of fluids, thermodynamics, electricity, magnetism, optics, and topics in modern physics. Click Students who pass the exam may have their college physics requirement waived, enabling the student to elect other college courses. Students who intend on taking AP Physics need to have a very strong math background. To that end, a grade of A- or above in MA 231 (Pre-Calculus Honors) is recommended for election of this course. For students to have a designation of AP Physics on their transcript they must have prior permission of the instructor and their guidance counselor. AP Students are required to encumber the expense of taking the AP exam..

In this course, the students will be expected to be active learners, demonstrating innovation and adaptability has a heavy emphasis on problem-solving. In addition the students will be expected to work independently and collaboratively during the qualitative and quantitative laboratory analyses. Students will be expected to remember and use a strong background in advanced mathematics.

Student assessment will include written tests, essay and open-ended questions, internet research, lab reports, lab practical tests, individual and group presentations. A significant portion of written tests consist of AP multiple choice and essay questions. Additionally, during Term 3, the student's grade may be based on the research/experimentation project.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in rigorous college engineering and physics courses.

For more information and current testing fees, please visit the College Board website.

AP Biology **Lab Course: 6 credits**

The AP Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year of college and the curriculum is aligned with the Biology Topics. Students electing AP Biology will be in the same class as those taking Advanced Biology Honors, but will have additional assignments and higher minimum standards in terms of evaluations (see below). Highly motivated and talented students may elect this course with the goal of taking the AP Examination. Students who pass the exam may have their college biology requirement waived, enabling the student to elect other college courses. Students who elect to take the AP Biology examination must encumber the expense for the exam.

In this course, the students will be expected to be active learners, demonstrating innovation and adaptability has a heavy emphasis on problem-solving. In addition the students will be expected to work independently and collaboratively during the qualitative and quantitative laboratory analyses.

The minimum expectation of student mastery of content and process standards is 80% and the minimum expectation of student performance on all Performance Task Assessment Lists is 80%. A score of "3" is expected for all rubrics.

Upon completion of this course, students will have enhanced their scientific skills and habits of mind required to comprehend science at a deep level. In addition they will have learned the content necessary to excel in rigorous college biology courses.

For more information and current testing fees, please visit the College Board website.

Special Education

The Joseph Case High School Special Education Department models the school's commitment to gaining diverse, inclusive and global-minded perspectives. The department strives to **engage all students as active learners** and provide students with the skills to become **active learners, demonstrating innovation, iteration, and adaptability**. The Department believes all students, regardless of their disabilities, are capable of learning. The goal is for students to be educated within the least restrictive environment appropriate to meet their needs and participate and contribute to the communities in which they live. The department strives to create an environment that is safe and comfortable for the students. The family context and family-school collaboration are essential factors in supporting a student's learning and development. In the Special Education Department, mutual respect and collaboration are expected and infused into all working partnerships. All special education courses follow the Massachusetts Curriculum Frameworks provided by the Massachusetts Department of Elementary and Secondary Education.

The Joseph Case High School Special Needs Department offers differentiated instruction for ELA, math, history, and science for grades 9-12. In addition to resource classes, special education academic program offerings include the following:

Substantially Separate Classrooms

Substantially separate programming services children in grades 9 through 12 who have significant specific learning disabilities and/or are cognitively challenged. Small classroom instructional groups offer support in each major subject area: English, math, science, and social studies. The students placed in substantially separate classrooms require a small classroom setting where a multi-sensory/differentiated approach is utilized to assist students in developing new skills.

The goal of each classroom is to provide the student with a developmentally appropriate academic program supported by intensive academic instruction. A multi-modal approach is used to reinforce new concepts presented and enhance skill development. Special education teachers utilize a diverse approach to instruction to ensure student success including small group and individualized lessons, differentiation of presented materials according to ability level, authentic learning opportunities and repetition and review to reinforce key concepts.

Students may select a course in the general education setting in one or more subject areas as deemed appropriate by the multidisciplinary team. Eligibility for special education services requires that the student is in grades 9 through 12, has cognitive limitations or significant learning disabilities and requires a small intensive instructional group.

Case Alternative Center for Education (CACE)

CACE is an alternative "school within a school" program at Joseph Case High School, serving students with social, emotional, behavioral and/or academic difficulties. The mission is to provide students with an on-campus, substantially separate program which allows for reintegration into the general education classroom setting to the extent deemed appropriate by the Team. Students are taught the importance of developing and utilizing coping mechanisms necessary to be a positive contributor to their surroundings.

Thus, students are afforded the opportunity to reintegrate into the general education setting when they have internalized the skills necessary to be effective within a less restrictive environment.

CACE offers core academics based upon the Massachusetts Curriculum Frameworks and opportunities for hands-on learning based upon the interests of individual students and the community of students as a whole. Vocational programming may be offered to students who display an interest in areas such as auto mechanics or woodworking and/or community-related experiences. Positive behavioral interventions, a highly structured, supportive environment, and individual/small group counseling services, are all integral parts of CACE They are designed to promote positive academic, social, emotional, and behavioral changes, which will ensure increasing levels of success in less restrictive educational, recreational, and social settings. Students in CACE, upon successful completion of required courses, passing the MCAS and accrual of 105 credits, will be awarded a high school diploma from Joseph Case High School. Students who complete the program, but do not pass the MCAS, are subject to state regulations regarding graduation status.

Alternative Roadways on the Cardinal Highway(ARCH)

The ARCH program provides educational services to students between the ages of 15 and 22 years with a diagnosis of autism spectrum disorder. The goal of the program is to develop skills that will enable students to participate as fully as possible in all areas of life and to transition students to the least restrictive environment appropriate to meet their needs.

Physical therapy, occupational therapy, and speech therapy are provided according to a student's Individualized Educational Program. Technology is heavily integrated into the curriculum through the daily use of computers, SmartBoards and other assistive devices. The students have access to a complete core curriculum linked to the Massachusetts Curriculum Frameworks. The community integration opportunities include recreational, educational and vocational field trips.

COURSE OFFERINGS

Academic Support (3) **2.5 credits**

Academic support is designed to provide academic assistance to students who are deemed eligible for this special education service. The focus of academic support is to enhance student's daily academic performance. The goal of the program is to facilitate the student's ability to achieve in academic subject areas in the least restrictive environment. Academic support was also developed to enhance both organizational and study skills, necessary for students to succeed in all core academic subjects. In addition, students are assisted with their academics in an attempt to help them achieve the goals and objectives identified in their Individual Educational Program, as well as, allow them to succeed within the general education setting.

Academic support is offered to students in grades 9 through 12. Students who receive academic support are recommended via the educational team. Academic support is provided during a 45-minute class period, the frequency of which is determined by the IEP team. This is a service that is written into a student's Individual Education Program and must be accepted by a parent or legal guardian prior to enrollment.

English 9/10 (3) **5 credits**

English 9/10 is designed to expose students to a variety of literature, vocabulary and grammar activities in order to develop and improve their ability to read, write and communicate effectively. Emphasis is also placed on familiarizing students with literary forms and techniques. Instruction focuses on preparing students for the MCAS and the skills to be lifelong learners.

Students are expected to read grade-level tests with the necessary accommodation prescribed by the IEP. Students are also expected to discuss a work of literature in a five paragraph expository essay.

Student assessment includes tests, quizzes, open response prompts, class discussion and participation.

Upon completion of the course, students should have acquired the skills needed to pass the English MCAS, as well as those needed to comprehend grade-level texts and communicate clearly and effectively through their writing given modifications and accommodations.

Link to Mass. Curriculum Frameworks for ELA and Literacy

English 11/12 (3) **5 credits**

English 11/12 is designed to expose students to a variety of literature, vocabulary and grammar activities in order to develop and improve their ability to read, write and communicate effectively. Emphasis is also placed on familiarizing students with literary forms and techniques.

They will also be able to discuss elements and structures of literary texts and to incorporate their understanding of those into expository and personal writing assignments. Part of the course focuses on preparing students for the ACCUPLACER, with an emphasis on the structure and style of the test.

Assessment includes tests, quizzes, open response prompts, class discussion and participation.

Upon completion of the course, students should have a thorough understanding of their abilities and limitations, as well as options available to them for a successful independent post-secondary experience.

Link to Mass. Curriculum Frameworks for ELA and Literacy

U.S. History 9 & 10 (3) **5 Credits**

United States History I is a special education course that focuses on the study of important political and economic factors that contributed to the outbreak of the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of America government, such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America's westward expansion, the establishment of political parties, and economic and social change. Finally, students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction. Students will also analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations.

The course's second year focuses on the causes, effects and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Students will study the goals and accomplishments of the Progressive Movement and the New Deal. Students will also learn about the various factors that led to America's entry into World War II as well as the consequences of World War II on American life. Finally, students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern-day America.

The class will focus on not just classroom lectures, but class discussions, projects, and papers. Students will be required to employ available technology by having students complete online lesson plans in class and outside of class and also completing digital presentations. Students will be provided with accommodations and modification of content as delineated in the individualized education program.

Upon completion of the course, students will be able to access primary sources, demonstrate an understanding of the course content through written evaluations and student presentations, participate meaningfully in class debates, demonstrate an understanding of causes and consequences of historical events, and the impact of the events on both history and current issues.

Link to the Mass. History/Social Science Frameworks

World History II (3) **5 Credits**

World History II is designed to meet the needs of special education students. The course focuses on the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. Students will study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will explain the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world.

Students will be required to complete note outlines during classroom lectures, participate in discussions and complete projects and papers. Students will also be required to employ available technology through the completion of online lessons and Google Slide presentations. Students will be provided with accommodations and modification of content as delineated in the individualized education program.

Upon completion of the course, students will be able to access primary sources, demonstrate an understanding of the course content through written evaluations and student presentations, participate meaningfully in class debates, demonstrate an understanding of causes and consequences of historical events, and the impact of the events on both history and current issues.

Link to the Mass. History/Social Science Frameworks

Basic Integrated Math 9 (3) **5 credits**

This course is for students entering the ninth grade on an Individualized Education Program who would require specialized math services because of a disability. This course is designed to increase foundational math skills and offer the Massachusetts Mathematics Curriculum Frameworks' Integrated Math 9 standards. Algebraic language, structure, concepts, and skills are emphasized. Real-life applications and making connections utilizing technology will assist students in the processes of analysis when problem solving. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions,

projects, and homework.

Upon completion of Integrated Math 9, students will have gained an understanding of the symbolic language of algebra, and acquired abstract reasoning skills necessary to excel in math and science.

Link to the Mass. Curriculum Math Frameworks

Basic Geometry (3) **5 credits**

Prerequisite: Successful completion of Integrated Math 9 (3)

This course is for students traditionally in grade 10on an Individualized Education Program who would require specialized math services because of a disability. This course develops the understandings of the major concepts of Euclidean geometry. Using both an inductive and deductive approach to the study of plane and solid figures, students should be able to justify their work using definitions, postulates and theorems. The course is designed to integrate content from all mathematical strands as prescribed by the Massachusetts Mathematics Curriculum Frameworks Geometry standards. Topics include relationships among lines, angles, congruence, similarity, polygons, triangles, area, volume, transformations, and coordinate geometry. Students work independently and collaboratively to problem solve demonstrating innovation and adaptability. Students learn to communicate clearly and effectively using mathematical language and should apply processes of analysis, evaluation and creation when problem solving.

Student assessments include, but are not limited to, tests, quizzes, notebooks, open-response questions, projects, and homework.

After completion of Geometry, students should have mastered the concepts required for the detailed development of advanced topics in Integrated Math 9I.

Link to the Mass. Curriculum Math Frameworks

Mathematics 11/12 (3) **5 credits**

Mathematics 11/12 is a two-year special education course that addresses Integrated Math 9I concepts. Instruction content continues to reinforce the mastering of algebra. Through individual pacing and group instruction, students will focus on more advanced topics in Algebra. The content of this course has more flexibility based upon the needs of the students. Students may continue reinforcing key concepts on the MCAS if the needs of the class necessitate this. Practical math skills may also be the focus. Topics such as personal financing, budgeting, etc. will be the focus, which enable students to apply real life concepts that are needed post-graduation.

Assessment will include class participation, notebook and binder checks, homework, tests and quizzes.

Upon completion of the course, students should have acquired a foundation of algebraic skills needed to achieve a passing score on the

MCAS and continue to a post-secondary experience supportive of individualized needs to compensate for content disabilities.

Link to the Mass. Curriculum Math Frameworks

Physical Science (3) **6 credits**

Physical Science(3) is a modified physics course for 9th grade special education students whose content includes velocity and acceleration, displacement, mechanical energy, states of matter and heat transfer. The course engages students as active learners and encourages inquiry and problem-solving skills in response to teacher-demonstrations. Students will be required to create and interpret one-dimensional graphs, apply laws of science to authentic learning situations, identify origins of problems and possible solutions of real-world problems.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, class participation, student projects, and MCAS-based assessments.

Upon completion of the course, students should have acquired a foundation of knowledge in physics to successfully complete the physics MCAS test, as well as the skills to succeed in 10th grade biology.

Link to the Mass. Science Curriculum Frameworks

Biology (3) **6 credits**

Biology (3) is a 10th grade special education course that focuses on evolution and ecology, cell anatomy, and life structures. The course engages students as active learners and encourages inquiry and problem-solving skills in response to teacher-demonstrations. Students will be required to replicate cell structure, participate in class activities and connect biology content to their own lives. Students in Biology (3) who did not achieve a passing score on the "Introduction to Physics" MCAS will be required to take the Biology MCAS in June.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, class participation, student projects, and MCAS-based assessments.

Upon completion of the course, students should have acquired a foundation of knowledge in biology to successfully complete the biology MCAS, as well as the skills to advance to Applied Biology/Chemistry (3).

Link to the Mass. Science Curriculum Frameworks

General Science 11 and 12 **6 credits**

General Science 11 and 12 is a modified science course for special education students in the 11th and 12th grade. The course focuses on preliminary content needed for health-care and related medical fields including dental hygiene, medical technology and other assistant-related occupations. Content is presented in relation to a wide variety of real contexts. Students will be required to utilize a problem-based active learning model, demonstrate understanding though individualized and group projects and participate in class discussions.

Assessment will include, but is not limited to, written tests, essay and open-ended questions, student projects and presentations.

Upon completion of the course, students will have been exposed to a variety of career-based content to help facilitate a successful transition to a post-secondary technical program.

Link to the Mass. Science Curriculum Frameworks

ARCH Internship (3) 5 credits

This course affords ARCH seniors the opportunity to utilize the skills they have learned and apply them in an authentic internship opportunity. The course is individualized for each student. Each student is given the opportunity to pick an area that is of interest to them within the Joseph Case High School community. The student will learn more about the field of interest in a safe environment. The students will acquire and implement additional skills in teamwork, problem solving, and managing various real world expectations.

Technology Education

Computer Science and Instructional Technology: Concentration Overview

The Computer Science curriculum is directly driven by Joseph Case High School's Core Values and Visions of the Graduate. All courses emphatically support student efforts to become responsible digital citizens who embrace technology while assuming the role of active learners with an innovative mindset.

The Department is committed to providing positive educational experiences and supporting students in success-filled learning, centered on the use and understanding of today's technology. The department strives to ensure that all learners have equal access to instruction in the technologies available at our school. Courses in computer science promote an understanding of a range of concepts in computer programming, computer application, and media studies. Courses are designed to allow students access to varied computer features, programming applications, and media development.

All students are required to take at least one course offered by the department. Successful completion of Computer Science I or AP Computer Science Principles fulfills the one-year graduation requirement. The required course is determined by mathematics grades in the freshmen year. Once the required course is successfully completed, students can elect additional courses in the Department. Students are encouraged to consider their post-secondary plan when selecting computer science courses. Through analysis, evaluation and creation in problem-solving, the Department strives to present a rigorous course experiences in preparation for the post-secondary transition. All students are encouraged to enroll as early as possible in their required computer science course in order to have the opportunity to take multiple computer science courses prior to graduation. Ink to the 2016 Massachusetts Digital Literacy and Computer Science Digital Frameworks.

Design, Build & Maintenance Technology

Believing that career and technology education are essential phases of modern society, Design, Build, & Maintenance Technology addresses career needs to upgrade, retrain, and maintain occupational choice and technological literacy for all members of society. The Tech Ed department believes that students should demonstrate innovation by appropriately adapting and iterating through the problem solving process throughout all Industrial Arts-type courses. Industrial Arts courses provide students with authentic learning opportunities by promoting real-life skills fundamental to their future, whether it be in post-secondary education or into the workforce. Education in the Industrial Arts can further a career, allow students to build and maintain items throughout their lives, or begin a hobby. The goal of the department is for students to feel comfortable working with both vehicles and carpentry at an introductory level.

The Department strives to reinforce visions of the graduate by keeping current on best used practices and developments in the industrial arts fields. This includes the study of new technology that is introduced in the field throughout the course of a year. It is important for students to understand that the field is ever changing, and currency within the curriculum is vital to a true understanding of industrial arts.

We strive as a department to prepare students with real life skills. What makes our courses so unique is that students can utilize the skills they have received in our class immediately within their daily lives. Our goal as a department is to passionately promote hands on learning, with a focus on how our subject is always changing. Each student who takes an Industrial Arts course has the opportunity to receive an authentic learning opportunity.

COURSE OFFERINGS

Computer Science (1) **5 credits**

This course introduces students to algorithmic thinking, computer operations, programming, 3D Modeling, basic web design and the inner-workings of the Internet. Students will use a combination of online programming modules and software independently and collaboratively to create basic programs, animations and applications. Topics include input/output, functions, variables, arrays, procedures and internet functionality and security. This course satisfies the computer requirement for graduation. Student assessment will include, but is not limited to, quizzes, exams, programming module completion, lab projects, and oral questions and answers. Please note: students in 10 with strong math skills may elect AP Computer Science Principles in lieu of Computer Science I. Open to all students grades 9-12.

AP Computer Science Principles **5 credits**

AP Computer Science Principles course will introduce you to the essential ideas of computer science and show how computing and technology can influence the world around you. You will creatively address real-world issues and concerns while using the same processes and tools as artists, writers, computer scientists, and engineers to bring ideas to life. Along with the fundamentals of computing, you will learn to analyze data, information, or knowledge represented for computational use; create technology that has a practical impact; and gain a broader understanding of how computer science impacts people and society. The major areas of study in the AP Computer Science Principles course are organized around seven big ideas, which are essential to studying computer science. Student assessment will include, but is not limited to, written quizzes, written exams, presentations, projects and assignments, and oral questions and answers. More info from College Board, click here.

AP Computer Science A **5 credits**

This course is recommended to any student who has completed Computer Science I or AP Computer Science Principles. Students learn to analyze, evaluate, and problem solve through the programming process. At the conclusion of the course, the student will be able to program in JAVA using advanced topics such as multi-dimensional arrays, methods, Strings, and classes. This material covered in the class allows the student to participate in the Computer Science Advanced Placement Exam. This course is ideal for any student pursuing a college major in a science, business, math or computer-related field. Student would be required to encumber the expense of taking the AP Examination. Student assessment will include, but is not limited to, written quizzes, written exams, presentations, computer lab projects and assignments, and oral questions and answers. More info from College Board, click here.

Video & Digital Media (1) **5 credits**

This course will provide students with the opportunity to plan, prepare, produce and edit video-based projects for the modern-day world. Students will first be able to assess whether video is the proper medium for communicating ideas and then understand both purpose and audience in the process of creating a variety of video-based projects. Essential background information on the media making process, the usage of mobile and tablet technology, and the fundamentals of storytelling will page 60 be covered in class through a variety of readings, lectures, and hands-on assessments. All phases of production will be carried out by students individually and collaboratively through the creation of video in both short and long-term scenarios. At the conclusion of the course students will be able to use basic camera techniques, record sound, use editing features, and incorporate lighting into their video productions. Student assessment will include, but is not limited to, written quizzes, lab assessments, and term projects.

Project-Based Media (1) **5 credits**

This course is recommended to any student who has successfully completed Video & Digital Media. In this self-driven, gradeless course, students meet with the instructor to conceptualize projects of their own design and carry out all stages of development from initial idea creation to marketing and screening/display of their final products. Topics and projects include, but are not limited to, narrative films, studio television, video journalism, blogging, web series, gallery installations, and 3D models. This course is ideal for any student pursuing a college major or career in video production, web-based media development, podcasts and digital music. Student assessment will be standards-based as agreed upon by both the student and instructor per project.

CAD / MakerSpace (1) **5 credits**

CAD MakerSpace introduces the aspects of working with images, 3D modeling, new media, and installations. It is intended to be used as a survey course and training guide for students with multiple interests. Students work on a range of term projects from single and multi-view drawings, building three-dimensional solid models, and creating and maintaining a digital portfolio of Computer-Aided work. Students receive single assignment critiques, labs and term-project grades. This course requires students to use computer and technology daily. Assessment is primarily based on lab performance and term-long projects. Upon completion, students will have mastered a knowledge of using a range of technology to complete a variety of tasks from 3D models to digital portfolios and installations. Students can elect to take a second year of project-based studies in this course.

Design & Build Technology (2) **5 credits**

This course is an entry-level course designed to cover the basic fundamentals of home-improvement, woodworking and small engine repair and maintenance. Students will learn concepts of design and computer-aided design, woodworking methods and basic construction principles. Students begin with the use of hand tools and can eventually progress to using power machinery. Students are given real life skills that promote authentic learning opportunities. Upon completion, students will be able to plan and design a woodworking project. Students will be familiar with safety precautions, measurement skills and the ability to incorporate the use of tools into finishing a product as well as home maintenance projects. Students can elect to take additional years of project-based,. design and build technology that meets concurrently.

World Languages

Department Overview

The study of a modern language teaches skills essential for today's global work environment, and is aligned with our current Vision of the Graduate. In order to achieve language and cultural proficiency, the study of a modern language requires innovation, clear and effective communication, problem solving, cooperative learning and cultural appreciation.

The world language curriculum is guided by the proficiency model developed by State and National standards which provides a "roadmap to guide learners to develop competence to communicate effectively and interact with cultural competence to participate in multilingual communities at home and around the world" (ACTFL, 2015). Language proficiency is attained by the authentic use of the target language in order to communicate as well as develop a diverse, inclusive and global-minded perspective. These skills are demonstrated through the presentation of conversational themes that promote language proficiency in the areas of speaking, reading, listening and writing. The exploration and analysis of cultures are weaved throughout each unit of study. Assessment of these important skills are accomplished through a variety of strategies such as informal questioning, role-playing, short class presentations, essays and creative projects.

IMPORTANT NOTICE: In order to meet the state college world language requirement, a student must continue with the study of the same language in high school for a minimum of two years. It is recommended that the study of a language be in consecutive years. Many institutions of higher education and most private institutions recommend three to four years of a world language. The willingness to continue the in depth study of a language demonstrates seriousness of purpose and resilience on the part of the student. These skills are essential in the workplace as well as in college. In addition, many studies have shown improvement on math and verbal SAT scores with each additional year of world language study.

COURSE OFFERINGS

Spanish I(1) **5 credits**

As an introductory language course, the first year will establish the foundation necessary for language acquisition through varied listening, speaking, reading, and writing activities in the target language. While it is imperative that students gain knowledge of the basic structures of the language, it is also important that they go beyond the simple manipulation of forms. Students are encouraged to think critically and take risks when expressing themselves in the language.

In addition, students will be expected to communicate clearly and effectively in stage one of language proficiency set forth by the Massachusetts Foreign Language Frameworks.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, structural and cultural mini projects and a major research project on target countries, primarily in English.

Upon completion of Spanish I, students perform simple communicative tasks using single words in naming articles in the classroom or listing their favorite foods. Students also use common phrases and expressions to complete simple tasks such as saying "good morning" and stating their name, age, and where they live.

Link to Mass. Curriculum Frameworks for Foreign Language

Spanish I (H) **5 credits**

This course is designed to move students along at an accelerated pace and requires independence and motivation. Students in this section have displayed mastery of the foundational skills introduced in the 8th grade World Language course. A grade of A- or better in 8th grade along with a teacher recommendation is assessed for enrollment.

This course continues language acquisition through listening, speaking, writing, and with an additional emphasis on authentic reading activities in the target language. Students are encouraged to think critically and take risks when expressing themselves in Spanish.

Students will be expected to develop language performance in the Novice - Mid range according to the American Council on the Teaching of Foreign Languages (ACTFL).

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, structural and cultural mini projects and a project on target countries.

Mass. Curriculum Frameworks for Foreign Language

Spanish II (1) **5 credits**

At this level, the student will continue with the communicative approach of the level one course. The four language skills will be further refined with more emphasis on communication. This progression will act as a catalyst that will produce more authentic language situations. New grammatical principles are introduced, and common patterns of sound, order and structure already learned are studied in greater depth. Vocabulary and grammar is introduced in thematic units that are centered on interdisciplinary and cultural themes. Oral activities are regularly used for practice of intonation, phrasing and manner of expression.

Students at this beginner level will continue to communicate clearly and effectively in stage one of language proficiency set forth by the Massachusetts Foreign Language Frameworks. A grade of C- or higher in Level I of the language is recommended.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, structural and cultural mini-projects and two or more major projects: reflexive versus non-reflexive verbs, designing a city, cookbook project, fashion show video or department store video.

Upon completion of Spanish II, students continue to perform simple communicative tasks using selected words, phrases, and expressions with no major repeated patterns of error.

Link to Mass. Curriculum Frameworks for Foreign Language

Spanish III (1) **5 credits**

The majority of this class is conducted in the target language. Student will be expected to read excerpts from short stories of representative authors of literature as well as cultural readings of various regions and cities of the target country. Vocabulary and grammar are continued to be introduced through interdisciplinary, cultural thematic units with the goal of communicating clearly and effectively in the beginning phase of stage two of language proficiency set forth by the Massachusetts Foreign Language Curriculum Frameworks. In Spanish III, the student will survey Latin American authors where he will later produce pieces of writing that require analyzing, giving opinions and predicting. A grade of C- or better in Level II is recommended.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, essays, structural and cultural mini-projects, literature quizzes and tests, and major projects, such as thematic units, family project, writing a children's storybook, cooking project, movie trailer or talk show video project.

Upon completion of Spanish III, students begin to create new combinations of the language they have previously learned in the first two years. Students use sentences, strings of sentences, and recombinations of learned words, phrases, and expressions with frequency of error proportionate to the complexity of the communicative task.

Link to Mass. Curriculum Frameworks for Foreign Language

Spanish IV (1) **5 credits**

Students will continue to refine their aural-oral, reading, and writing language skills. The class will be conducted primarily in Spanish. In addition to the continuation of the expansion of vocabulary and grammatical structures, a focus will be on the refinement of the use of language, especially pronunciation and intonation. Students will expand their knowledge of the cultural aspects of Spanish speaking countries through readings and research, and one will be expected to produce more independent assignments, projects, and PowerPoint presentations, demonstrating authentic language use. Vocabulary and grammar are continued to be introduced through interdisciplinary, cultural thematic units with the goal of communicating clearly and effectively in stage two of language proficiency set forth by the Massachusetts Foreign Language Frameworks. A grade of C- or better is recommended from Level III.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, essays, literature quizzes and test, reading comprehension quizzes, structural and cultural mini-projects and major projects, such as thematic units, PowerPoint presentations, cooking video project or news video.

Upon completion of Spanish IV, students will continue to create new combinations of the language they have learned in previous years. Students use sentences, strings of sentences, and fluid sentence length and paragraph length messages with frequency of errors proportionate to the complexity of the communicative task.

Link to Mass. Curriculum Frameworks for Foreign Language

Spanish IV Honors (H) **5 credits**

In addition to the course objectives of Spanish IV, additional teaching units will be covered with an accelerated classroom pace. Student writing is expected to be more critical and reflective at this level. In this class, student will be introduced to the picaresque novel, *Lazarillo de Tormes*. A grade of B+ or better from Level III is recommended as well as the recommendation of the Spanish III instructor.

Student assessment will include, but is not, limited to traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, essays, literature quizzes and test, reading comprehension quizzes, structural and cultural mini-projects and major projects such as thematic units, power-point presentations, cooking video project or news video.

Upon completion of Spanish IV Honors, students will continue to create new combinations of the language they have learned in previous years. Students are able to produce and comprehend fluid sentence-length and paragraph-length messages.

Link to Mass. Curriculum Frameworks for Foreign Language

Portuguese I (1) **5 credits**

As an introductory language course, the first year will establish the foundation necessary for language acquisition through varied listening,

speaking, reading, and writing activities in the target language. While it is imperative that students gain knowledge of the basic structures of the language, it is also important that they go beyond the simple manipulation of forms. Students are encouraged to think critically and take risks when expressing themselves in the language. In addition, students will be expected to communicate clearly and effectively in stage one of language proficiency set forth by the Massachusetts Foreign Language Curriculum Frameworks.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, structural and cultural mini projects and a major research project on target countries, primarily in English.

Upon completion of Portuguese I, students perform simple communicative tasks using single words in naming articles in the classroom or listing their favorite foods. Students also use common phrases and expressions to complete simple tasks such as saying "good morning" and stating their name, age, and where they live.
Link to Mass. Curriculum Frameworks for Foreign Language

Portuguese II (1) **5 credits**

At this level, the student will continue with the communicative approach of the level one course. The four language skills will be further refined with more emphasis on accuracy of expression. This progression will act as a catalyst that will produce more authentic language situations. There will be a wide variety of assessments used at this level involving both individual research and group activities.

The primary objective is the preparation for reading, both for comprehension and for cultural appreciation. New grammatical principles are introduced, and common patterns of sound, order and structure already learned are studied in greater depth. In addition, the student will be expected to communicate clearly and effectively in stage one of language proficiency set forth by the Massachusetts Foreign Language Frameworks. Oral activities are regularly used for practice of intonation, phrasing and manner of expression. A grade of C- or higher in Level I of the language is recommended.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, structural and cultural mini-projects and two or more major projects: reflexive versus non-reflexive verbs, family project, designing a city, cookbook project, fashion show video or department store video.

Upon completion of Portuguese II, students continue to perform simple communicative tasks using selected words, phrases, and expressions with no major repeated patterns of error.

Link to Mass. Curriculum Frameworks for Foreign Language

Portuguese I (H) **5 credits**

This course is designed to move students along at an accelerated pace and requires independence and motivation. Students in this section have displayed mastery of the foundational skills introduced in the 8th grade World Language course. A grade of A- or better in 8th grade along with a teacher recommendation is assessed for enrollment.

This course continues language acquisition through listening, speaking, writing, and with an additional emphasis on authentic reading activities in the target language. Students are encouraged to think critically and take risks when expressing themselves in Portuguese.

Students will be expected to develop language performance in the Novice - Mid range according to the American Council on the Teaching of Foreign Languages (ACTFL).

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, structural and cultural mini projects and a project on target countries.
Mass. Curriculum Frameworks for Foreign Language

Portuguese III (1) **5 credits**

The majority of this class is conducted in the target language. Student will be expected to read excerpts, poems, and short stories of representative authors of literature as well as cultural readings of various regions and cities of the target country.

At this stage, student will be expected to communicate clearly and effectively in the beginning phase of stage two of the Massachusetts Foreign Language Curriculum Frameworks. The student will also engage in discussion of various social themes throughout the Lusophone world. A grade of C- or better in Level II is recommended.

Student assessment will include, but is not limited to, traditional quizzes and tests, role-playing dialogs, oral/aural quizzes, journal entries, essays, structural and cultural mini-projects, literature quizzes and tests, and major projects, such as thematic units, house project, designing a city project, cooking project, or video project.

Upon completion of Spanish III, students begin to create new combinations of the language they have previously learning in the first two years. Students use sentences, strings of sentences, and recombinations of learned words, phrases, and expressions with frequency of error proportionate to the complexity of the communicative task.
Link to Mass. Curriculum Frameworks for Foreign Language

AP Capstone and Virtual High School

AP CAPSTONE

AP Capstone™ is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone is built on the foundation of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the in-depth, discipline-specific study experienced in other AP courses. In AP Seminar, students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. In AP Research, students cultivate the skills and discipline necessary to conduct independent research in order to produce and defend a scholarly academic thesis. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams will receive the AP Seminar and Research Certificate. AP Seminar may also be taken as a stand-alone option. **For 2021-2022, the national testing fee for each Capstone exam was $144. For more details on AP Capstone, click here.**

AP Seminar **5 credits**

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze

and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

AP Research **5 credits**

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. PREREQUISITES: Students must have successfully completed the AP Seminar course.

Virtual High School Program

Joseph Case High School partners with the Virtual High School Global Consortium (VHS) to offer content-rich credit-bearing high school courses to students. The mission of VHS is to develop and deliver standards-based, student-centered online courses to expand students' educational opportunities and 21st century skills.

There are over 200 VHS courses available to students. Students are encouraged to be motivated as well as to have strong organizational and time management skills. Many of the VHS courses are unique and represent an opportunity for Joseph Case High School students to take courses beyond what is offered in the Joseph Case High School curriculum. As a member school, Joseph Case High School can enroll 25 students for VHS courses. VHS courses are first offered to seniors who desire to take AP courses which are not offered onsite. Next, selections are open to seniors who want to take courses that are also not offered onsite. Finally, if any seats remain, juniors can make course selections. All students electing VHS courses are encouraged to be motivated, focused and have strong organizational and time management skills. The VHS catalog and course descriptions are available in the guidance department and with the VHS coordinator.. Link to Virtual High School

JOSEPH CASE HIGH SCHOOL
COURSE LISTINGS 2022-2023

ENGLISH

105	English 9 (1)
106	English 9 (2)
110	English 10 (1)
111	English 10 (2)
113	English 11 (1)
114	English 11 (2)
118	English 12 (1)
119	English 12 (2)
176	AP English Lit & Comp
177	AP English Lang & Comp
172	**Journalism (1)**
173	**Creative Writing (1)**

MATH

210	Integrated Math 9 (1)
212	Integrated Math 9 (2)
215	Geometry (H)
221	Algebra II (H)
222	Integrated Math 10 (1)
223	Integrated Math 10 (2)
224	Integrated Math 11 (1)
225	Integrated Math 11 (2)
226	Integrated Math 12 (1)
227	Integrated Math 12 (2)
230	Pre-Calc/Trig (H)
236	Calculus (1)
237	AP Calculus AB
238	AP Statistics

HISTORY & SOCIAL SCIENCE

307	9 - World History II (1)
308	9 - World History II (2)
309	10 - U. S. History I (H)
310	10 - U. S. History I (1)
311	10 - U. S. History 1 (2)
315	11 - U. S. History II (1)
316	11 - U. S. History II (2)
350	11 - AP US History
319	**Economics (1)**
320	**Intro to Law (1)**
323	Psychology (1)
330	Issues in Contemp America (2)
351	AP Government and Politics

BUSINESS ELECTIVES

250	Introduction to Business (1)
251	Accounting (1)
252	**Entrepreneurship (1)**

SCIENCE

400	General Science (H)
402	General Science (1)
412	Biology (H)
411	Biological Science (1)
410	Biology (2)
425	Chemistry (H)
421	Chemistry (1)
420	Integrated Science 11 (2)
436	Physics (H)
422	Physics (1)
423	Advanced Biology (H)
434	Human Anatomy & Phys. (H)
424	Human Anatomy & Phys. (1)
450	Special Topics in Science (2)
440	AP Chemistry
442	AP Biology
444	AP Physics 1
445	AP Physics 2

WORLD LANGUAGES

521	Spanish I (1)
521H	Spanish I (H)
522	Spanish II (1)
523	Spanish III (1)
524	Spanish IV (1)
525	Spanish IV (H)
541	Portuguese I (1)
541H	Portuguese I (H)
542	Portuguese II (1)
543	Portuguese III (1)

COMPUTER SCIENCE

675	Computer Science (1)
679	CAD/Makerspace (1)
677	AP Computer Science A
680	AP Computer Science Principles
681	Video and Digital Media (1
682	Project-Based Media (1)

TECHNOLOGY EDUCATION

620	Design & Build Tech (2)
621	Adv Design & Build Tech (2)

HEALTH/CHILDCARE

788	Freshmen Academy
785	Family & Child Care I (2)
786	Family & Child Care II (1)
787	Family & Child Care III (1)

PHYSICAL EDUCATION

780	Physical Education - full year

FINE ARTS – VISUAL ARTS

880	Art I: Art I: Visual Design (2)
882	Art II: Paint/Draw/Print (1)
883	Art III: Foundation Drawing (1)
885	Digital Photography (1)
888	Art IV: Portfolio Presentation (1)
886	AP Studio Art

FINE ARTS – MUSIC

831	Introductory Concert Band (2)
832	**Concert Band (1)**
834	Introductory Chorus (2)
835	**Chorus (1)**
838	History of American Popular Music (2)
839	Music Foundation (1)

FINE ARTS – THEATER

850	Drama I (1)
851	Drama II (1)
852	Drama III (1)
853	Drama IV (1)
854	**Musical Theater (1)**
856	**Technical Theater (1)**
859	**Public Speaking (1)**
180	AP Capstone Seminar
181	AP Capstone Research
015	Virtual High School

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Updated 5/4/2022