## READY GLOBAL ACADEMY CURRICULUM GUIDE



2023-2024

## Ready Global Academy

## OUR MISSION

The Ready Global Academy (RGA) is a division of International Partnership Education Research and Communication (IPERC). RGA shares the mission of IPERC. Since its establishment, the International Partnership of Education Research and Communication, a 501(c)(3) Non-Profit organization, has partnered with schools around the world to develop educationally sound and beneficial programs and partnerships that increase international student enrollment and promote cross-cultural communication through education. We strive for the advancement of education quality and reform and the cooperation and mutual understanding between the world's nations and people, through providing unique opportunities that prepare students for global citizenship.

The mission of IPERC Global Academy is to provide students with a challenging and flexible education that prepares students for the 21st century workplace. We believe that a major goal of education is the development of the ability to make ethical decisions and to take moral action as well as to assist the student to mature to his/her full academic potential. We offer a full range college preparatory courses, including advanced placement and dual credit courses, for students of all ability levels. Through our curriculum, we create unique opportunities for learning enabling all students to achieve access, excellence, and equity in education.

Ready Global Academy's main purpose is to develop and integrate education innovations that will transform (flip) the traditional classroom. RGA creates effective international education programs for learning that are flexible, learner-centered, inquiry-oriented, and project engaged which allow students to complete their course of study anywhere in the world.

The administration and staff of Ready Global Academy believes

- that each of us contributes to creating a positive learning environment wherein students become moral, self-directed, confident, global thinkers.
- in teaching students to adapt to their ever-changing world.
- in the value of creativity, imagination, and passion.
- that diversity is an opportunity to enrich school culture and to promote a thoroughly inclusive community.


## HOME ADVISOR

Once a student enrolls at Ready Global Academy, they are assigned a Home Advisor who assists the student to plan a course of study. Sample 2 and 4 year plans are in the Appendix. Home Advisors monitor student academic progress, observe them in classes, assist them to meet with academic success, and communicate directly with all parties regarding student or parent concerns. College counselors help students select appropriate colleges and complete applications.

Prior to course selections students must meet the prerequisites for a class. This may mean taking a pretest for a particular subject area. Furthermore, international students may be asked to demonstrate a mastery of English prior to registering for courses.

## READY GLOBAL ACADEMY GRADUATION REQUIREMENTS:

Ready Global Academy full time students must be enrolled in a minimum of six credits each year. Interest, ability, needs, teacher recommendation, as well as the physical, emotional, social and intellectual development of the student should be considered in the selection of courses and course load. The number of credits required for graduation is listed below. In order to earn a diploma from RGA a student must successfully complete a minimum of six (6) credits with RGA. It is suggested that for continuity of content that students plan to attend RGA at least two to three years.


Science: Science units must include 2 units of lab.

Foreign Language: While not a requirement for non-native English speaking students, many four-year colleges and universities require a minimum of two years of sequential world language study at the secondary level as a college admissions requirement. This is the case for many in-state and out-of-state colleges and universities.

Transfer students seeking a diploma are required to meet all Ready Global Academy graduation requirements. Requirements are subject to revision. Any change in course requirements, graduation requirements, and/or scheduling requirements after this booklet is printed will be communicated to parents and students.

## Examples of Recommended Minimum Program of Study (total 24 credits)

|  | Highly Selective Institution | Very Selective Institution | Selective Institution |
| :---: | :---: | :---: | :---: |
| English | 4 years | 4 years | 4 years |
| Math | 4 years | 4 years | 3 years |
| Social Studies | 3-4 years | 3-4 years | 3 years |
| Science | 3-4 years | 2 years | 2-3 years |
| World Language | 2-3 years | 2 years | 1-2 years |
| Honors \& AP Courses | Encouraged where appropriate | Encouraged where appropriate |  |
| Institution Examples | Northwestern, <br> University of Michigan, Washington UniversitySt Louis | University of Illinois -Urbana-Champaign, Marquette University, University of Wisconsin-Madison | Illinois State University, University of Missouri, Carthage College |

* For best information on individual college requirements, check the specific college website.


## Graduation Diploma

In order for a student to be awarded a Ready Global Academy diploma they must have earned a minimum of 6.0 credits from RGA and completed at least 24 high school credits. The 6 credits taken at Ready Global Academy may be spread out over multiple years.

## COLLEGE PREPARATORY CURRICULUM

College entrance requirements including requirements concerning GPA, class rank, test scores, etc., vary from institution to institution; therefore, it is important that students planning to attend college familiarize themselves with requirements of the school(s) they may attend. Students planning to attend college should have the best and most complete academic preparation possible. The admissions process has become more selective in state-assisted colleges. In many cases, only students who follow a college preparatory curriculum similar to the one listed below, and who attain a certain GPA, class rank and/or standardized test scores, will be offered unconditional admission.

RGA students are assigned a College Counselor when they enroll at RGA that assists each student in reviewing college requirements. The student should make every effort to seek information from various sources concerning educational and career plans, e.g., parents, counselors, teachers, those employed in careers in the student's area of interest, college catalogs, professional, academic, and career literature. The following course of study is highly recommended for those wishing to follow a solid college preparatory curriculum:

- Four credits in each of the following: English, Mathematics, Science, and Social Studies.
- Three credits in one Foreign Language or two credits in each of two Foreign Languages. (This requirement may be waived for International students who are bilingual. Some universities will require international students to demonstrate their mastery of English by taking the TOEFL)
- One credit in Visual and Performing Arts.

The Advisory Commission on Articulation between Secondary Education and Ohio Board of Regents and the State Board of Education states that "AN ACADEMICALLY CHALLENGING SENIOR YEAR IN HIGH SCHOOL IS IMPORTANT IN MAKING A SUCCESSFUL TRANSITION TO COLLEGE LEVEL WORK."

ENGLISH PROFICIENCY TEST/PLACEMENT TESTS

Students must demonstrate a mastery of the English language that will provide a foundation for success in course work. Placement tests will be administered to students requesting a higher level course placement than is demonstrated through previous courses.

## COLLEGE CREDIT PLUS (CCP) PROGRAM

The College Credit Plus program allows students the opportunity to earn college credit while still in high school.

Students will have the college course and grade listed on their Ready Global Academy transcript as well as an official transcript from the college. Students should arrange through their college counselor to send a college transcript with their college applications.

- If You Are Planning to Study at Marquette University: Grades earned through the Marquette Explorer Program are considered MU grades and will become part of your undergraduate GPA if you enroll at MU as a full-time student.
- If You Are Planning to Study Elsewhere: If you are not planning to attend MU, please note that most institutions typically do not accept grades lower than a "C" for transfer credit. It is your responsibility to investigate how other institutions transfer in credits earned through the Marquette Explorer Program

Courses are taken through Marquette University's Marquette Explorer Program. CCP courses are subject to placement, teacher recommendation, academic ability, and prerequisites. Students must have a cumulative GPA of 3.0 or above (on an unweighted 4.0 scale). The only exception is for juniors and seniors who have a GPA of 2.5-2.99 who must submit a completed Explorer Student Parental Permission Form to the home advisor.

Specific course prerequisites may also need to be met through coursework, placement tests or standardized test scores. Please contact admissions for more details.

## AP COURSES

Ready Global Academy offers over 22 College Board approved Advanced Placement (AP) courses. A few other Advanced Placement courses are available for interested students; please contact your Advisor if you are interested in an AP course not listed in our Curriculum Guide and RGA will make every effort to offer that class.

## GRADE SCALE: EXPLANATION OF LETTER GRADES

A 100-92
C 76-74
A-91-90
C-73-70
B+ 89-87
D+69-67
B 86-84
D 66-64
B- 83-80
D-63-60
C+ 79-77
F 59-0

A-SUPERIOR: The student demonstrates superior mastery of skills and superior comprehension of course content. Student shows initiative, diligence and curiosity in furthering his/her own learning B EXCELLENT: The student demonstrates excellent mastery of skills and excellent comprehension of course content.

C SATISFACTORY: The student demonstrates satisfactory progress toward skill mastery and satisfactory comprehension of course content. D IMPROVEMENT NEEDED: The student demonstrates little progress toward skill mastery and minimal comprehension of course content.
F NO PROGRESS: The student demonstrates no progress toward skill mastery and fails to meet minimum expectations.

I - Incomplete W - Withdraw WF - Withdraw/Fail R - Audit P - Pass

## GPA COMPUTATION

Computation of grade point average (GPA) is on a four-point (4.00) scale for all classes regardless of course designation (Advanced Placement; College Equivalent; Honors; College Prep). Each student's GPA is computed upon completion of each course; however, cumulative grade point averages are only computed three times a year in August, December, and May.

Weighting of Grades - The Weighted Average is calculated with Level 2 (Honors) course grades having a factor of 1.250 and Level 3 (Advanced Placement and College Equivalent) course grades having a factor of 1.500 .

Quality Point Values
$A=4.00$
A-=3.75
$B+=3.50$
$B=3.00$
B- $=2.75$
$\mathrm{C}+=2.50$
$C=2.00$

C- $=1.75$
$D+=1.50$
$D=1.00$
$D-=0.75$
$\mathrm{F}=0.00$
$W / F, P / F=0.00$
$W=$ No point value

Incomplete Grades (I) are recorded at the end of the quarter when work is unfinished due to an excused and documented, extended absence. This work must be completed upon the student's return to class. Exceptions/variances and specifics pertaining to the time needed to complete work must be made through the instructors involved in conjunction with the Principal and the Guidance Office. Failure to complete the required work within the specified time will result in an " I " being changed to an " $F$ ". For transfer students, only grades earned at Ready Global Academy are factored into the student's cumulative GPA - the GPA from the previous school is not factored into the cumulative GPA. The previous GPA will be reported to colleges.

## WITHDRAWALS

If a student withdraws from a class at any time and wishes to re-enroll in the class at a later time, they must restart the course from the beginning. There may also be a financial penalty for retaking a course.

## HONOR ROLL

Ready Global Academy publishes a list of full-time students who have qualified for RGA Honor Roll three times a year (April 30, August 30, and December 30). A student becomes eligible for Honor Roll by earning a cumulative grade point average of 3.75 or above ("A" honor roll) or a 2.75-3.50 ("B" Honor Roll).

## READY ACADEMIC HALL OF FAME

Students are accepted into the Ready Global Academy Academic Hall of Fame upon graduation if they have earned a 4.0 or higher cumulative grade point average.

## CHANGE OF SCHEDULE REQUEST

Ready Global Academy students are discouraged from changing their schedule once the course has begun. A student or parent should consult with their student's Home Advisor if they feel the student is misplaced in a class. In extreme or unusual cases (student has been misplaced) a level change or drop may be initiated by the teacher. Schedule changes must be approved by the Principal. Because RGA has rolling admissions, a student may start a class at any time. A student may be withdrawn from a class at any time during the year for disciplinary reasons (i.e. academic dishonesty). The student will receive a failing grade for the course.

## RETAKING A COURSE FOR CREDIT

In the event of a failing grade students may retake a course for credit to fulfill the prerequisite for a subsequent course. The failing grade will be used in computing GPA and will remain on the student's academic record. The grade earned after retaking the course will likewise be recorded on the student's permanent record and used in computing GPA.

## COURSE LEVEL AND CREDIT

Students may be asked to move from one course level to another based on their academic performance and needs during the school year in consultation with the parent, teacher, Homeroom Advisor and College Counselor.

## COURSE WORK EXPECTATIONS

The minimum requirement for 1 credit hour is defined as 30 hours of synchronous instruction accompanying a minimum of 90 hours of asynchronous instruction. Examples of asynchronous activities include, but are not limited to, daily assignments, projects, quizzes, exams, reading, etc.

## FAILURE OF REQUIRED COURSES

Failure of required courses jeopardizes a student's progress toward graduation and/or prevents a student from registering for the next course in the sequence (e.g., English II must be completed prior to enrolling in English III, Biology prior to Chemistry, etc.). Therefore, all required course deficiencies MUST be successfully completed prior to the student's enrollment in the next level course. Failures incurred in courses taken at Ready Global Academy will remain part of the student's GPA.

## GRADE PLACEMENT AND ACADEMIC PROGRESS

Students are classified by grade according to the number of credits they have accumulated based on the Ready Global Academy and the state of Ohio graduation requirements. The minimum credits for grade classification, for transfer students, are as follows:
9 th grade - successful completion of grade 8
10th grade - 6.0 credits - 1 year in high school
11th grade - 12.0 credits - 2 years in high school
12th grade - 18.0 credits - 3 years in high school

## BUSINESS DEPARTMENT

Financial Literacy ( 0.50 credit) is required for graduation in some US states. All business courses are electives and can be used to meet the elective requirement for graduation.

## BU101 FINANCIAL LITERACY $(\mathbf{9}, \mathbf{1 0}, 11,12)$

### 0.50 credit

This course is designed to provide students with a practical introduction to money management that is critical for a strong financial foundation. The student will understand the impact of individual occupational goals and future earning potential. Real world topics include income, spending, credit and savings. Students will design personal and household budgets, simulate use of checking and savings accounts, demonstrate knowledge of debt and credit management, and evaluate taxes and insurance and investment and retirement tools. The student will be able to exhibit sound understanding for making solid personal financial decisions and manage his/her financial future. Students are assessed on individual performance in the following areas: projects, cooperative activities, homework, class participation, simulation exercises and chapter tests.

## BU201E BUSINESS PRINCIPLES \& STRATEGIES/ENTREPRENEURSHIP $\mathbf{( 1 0 , 1 1 , 1 2 )}$ 0.50 credits

This course is an introductory study of business principles designed for students to interpret the various aspects of the business world. Topics will include exposure to major elements in the business environment, forms of business ownership, global competition and studies in the international market, marketing, customer retention, and management strategies. Students will realize the integral role that business plays in the economy worldwide. Students are assessed on individual performance in the following areas: class work, homework, projects and tests.

## BU202E FINANCE \& INVESTING $(10,11,12)$ 0.50 credit

Finance and Investing is offered to students interested in learning an overview of the financial world and how to trade on financial markets. Students will explore the concept of time value of money, how financial markets and institutions play a role in the investment world, and different types of investments. Students will apply investment theories and demonstrate their knowledge through active trading using a virtual market simulation. This course is recommended for students who are considering careers in finance or business as well as those who seek a better understanding of how to invest and build a portfolio for their personal benefit.

## BU203E MARKETING $(10,11,12)$

### 0.50 credit

This course is for the student interested in a business career with an overview of marketing principles in business. Students will learn how effective marketers gain and maintain advantages in a global environment. Units will include pricing, market research, sales presentations, advertising, and promotion. Product development will be exercised as they will create and market a product for sale in
the school bookstore. Students will create print ads and brochures for simulated and real businesses. Students are assessed on individual performance in the following areas: projects, cooperative activities, homework, class participation, simulation exercises and chapter tests.

## BU204E TOPICS IN MARKETING $(10,11,12)$

### 0.50 credit

Topics in Marketing is a course designed to teach marketing concepts through the examples of different industries such as: sports, music, entertainment, fashion, and technology. Students will learn and apply the functions of marketing through hands-on learning, group activities, and projects related to marketing concepts studied in class. Students will develop a marketing plan where they create a new product/service and then apply target marketing strategies to produce promotional material, find sponsors, create advertisements, and more. Guest speakers enhance classroom instruction by sharing personal experience and informing students how to achieve a position in the marketing industry.

## BU301E ACCOUNTING I $(11,12)$

### 1.00 credit

This year-long course introduces students to a process for providing financial information as they define accounting terms, identify accounting concepts and practices, and then classify and analyze transactions. Discussion of ethical business practices and procedures is included as students become proficient in entering data in the general journal and general ledger and completing the accounting cycle. Students are assessed on individual performance in the following areas: daily assignments, class participation, reinforcement through business simulations and chapter tests.

## BU302E ACCOUNTING II $(11,12)$

### 1.00 credit

This year-long course expands on the fundamentals presented in Accounting I. Students will gain exposure to specialized journals, payroll, systems, depreciation, inventory and corporate accounting. It is recommended that students have prior knowledge of computer software to facilitate the use of spreadsheets. Students are assessed on individual performance in the following areas: daily assignments, chapter tests, class participation, and business simulations. (Prerequisite: "C" or better in Accounting I)

## BU601E COLLEGE CREDIT PLUS MICROECONOMICS (MU - ECON 1103) (11, 12)

### 3.00 MU credit hours / RGA 1.00 credit

Institutions and processes of market specialization and exchange. Supply and demand and their determinants. Pricing and production decisions of the firm under varying competitive conditions. The role of government in a modern mixed economy. Microeconomic analysis applied to selected economic problems.

## BU602E COLLEGE CREDIT PLUS MACROECONOMICS (MU - ECON 1104) (11, 12)

### 3.00 MU credit hours / RGA 1.00 credit

Processes and determinants of overall economic activity and growth. National income accounting, determination of aggregate income, employment, and the price level. Money and banking, government monetary and fiscal policy, and international economics.

## BU603E COLLEGE CREDIT PLUS FINANCIAL ACCOUNTING (MU - ACCO 1030) (11, 12)

### 3.00 MU credit hours / RGA 1.00 credit

Accounting concepts and principles applied in the preparation of financial statements, asset valuation, and the accounting for debt and equity issues of business corporations.

## BU604E COLLEGE CREDIT PLUS MANAGERIAL ACCOUNTING (MU - ACCO 1031) (11, 12)

### 3.00 MU credit hours / RGA 1.00 credit

Structuring data to aid management decisions. Internal control, budgeting, break-even analysis, standard costing, variable costing, ratio analysis, inventory control, capital budgeting and transfer pricing. (Prereq: BU603E with a C or above)


## COMPUTER DEPARTMENT

All computer courses count as electives

## CS101E FUNDAMENTALS OF INTERACTIVE MEDIA $(\mathbf{9}, \mathbf{1 0}, \mathbf{1 1}, \mathbf{1 2})$

### 0.50 credit

This course will explore the basics of interactive media software including Photoshop, Animate, and Dreamweaver. In Photoshop, students will learn how to use the tools and panels to create and edit graphics for web and print mediums. In Animate, students will learn to develop a working knowledge of various tools plus critical interface elements such as layers, scenes, nested symbols, and movie clips. In Dreamweaver, students will learn how to use divisions, tables, basic CSS, layout, and design for the web. Students will develop graphics as well as create animations and improve basic website building skills.

## CS102E INTRODUCTION TO COMPUTER PROGRAMMING $(\mathbf{9}, 10,11,12)$

### 1.00 credit

This course is an introduction to computer science and the foundations of basic programming. The student will be using a computer regularly in class to complete course work. The student is introduced to the basic features of computer programming language and standard operators and their use in flow control. The student will design and code moderately complex programs. Students will learn how to compile, execute and debug programs. They will gain insight into the logical solution of applied problems through the programming process. After completing this course, students will have learned material equivalent to a semester college introductory course in Computer Science and be able to program in JavaScript. Students are assessed on individual performance in the following areas: daily work grades based on the process observations done by the instructor and upon the individual computer programming results, personal notes involving the concepts, statements, functions, and structures involved in the current study, completion of regularly assigned homework, one long term assignment given in the second half of the semester, and one final written examination.

CS501E ADVANCED PLACEMENT (AP) COMPUTER SCIENCE A $(11,12)$

### 1.00 credit

This course is designed to help students master the basics of Java and equip them to successfully pass the AP Computer Science A Exam at the end of the school year. Students will learn object-oriented programming, data structures and computer programming algorithms. A substantial amount of student time will be spent at a computer inside and outside of class hours. The successful student will use a computer at school, and a personal computer at home. Students are required to take the Advanced Placement examination at the end of the year. (Prerequisite: "C" or above in INTRODUCTION TO COMPUTER PROGRAMMING)

## CS502E ADVANCED PLACEMENT (AP) COMPUTER SCIENCE PRINCIPLES $(11,12)$

### 1.00 credit

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to creative aspects of programming, using
abstractions and algorithms, working with large data sets, understanding of the Internet and issues of cybersecurity, and impacts of computing that affect different populations. Students will learn to use current technologies in order to solve problems and create meaningful computational artifacts.
(Prerequisite: Concurrent enrollment or completion of Pre-Calculus).

## CS601E COLLEGE CREDIT PLUS INTRODUCTION TO COMPUTER SCIENCE: PRINCIPLES (MU - CSCI 1000)

$(11,12)$

### 3.00 MU credit hours / RGA 1.00 credit

Explore the science behind today's computerized society. Topics include development of algorithms and programs, abstraction in computer systems and the use of data to discover new knowledge. Explore the impacts computing innovations have on culture and society, through operating systems, the Internet, programming languages, artificial intelligence and data representations. Previous computer experience is not required

## CS602E COLLEGE CREDIT PLUS SOFTWARE DEVELOPMENT WITH PYTON (MU - COSC 1010) $(11,12)$

4.00 MU credit hours / RGA 1.00 credit

Introduction to abstraction, algorithmic thinking, simulation and testing for computer-based problem solving. Students learn a high-level programming language and use tools developed by computer scientists and software engineers to solve problems. No prior programming experience is assumed.

# ENGLISH DEPARTMENT <br> Graduation Requirement: 4.00 English Credits 

## EN101 LITERATURE AND COMPOSITION I $(9,10)$

### 1.00 credit

This course incorporates study skills, close reading, analyzing, discussing, listening, speaking and reflecting upon literature and informational texts. Students will read a variety of genres, with emphasis on the short story. Students will analyze textual content in terms of connotative, denotative, and figurative meanings where applicable. Students will continue to develop sentence building skills, grammar and usage skills, research skills, and vocabulary skills. Students will utilize these skills while advancing their aptitude in writing argumentative, informative, and narrative pieces.

## EN101H LITERATURE AND COMPOSITION I HONORS $(9,10)$ 1.00 credit

This course incorporates study skills, close reading, analyzing, discussing, listening, speaking and reflecting upon literature and informational texts. Students explore global culture and human ideas through analysis of literature and informational texts of representative authors. Students create expository, narrative, descriptive and persuasive written arguments which reflect personal views and analyze the ideas of others. Students are assessed on individual and collaborative application of communication and critical thinking skills while participating in class activities and discussions, completing assigned readings, writing paragraphs and essays, composing creative or poetic works, and investigating and writing an interdisciplinary research paper. Other assessments might include debates, presentations and/or projects. This course is designed for the student who possesses advanced skills or has demonstrated the potential to do advanced work.

## EN203 LITERATURE AND COMPOSITION II $(10,11)$

### 1.00 credit

This course incorporates study skills, close reading, analyzing, discussing, listening, speaking and reflecting upon literature and informational texts. Students will read exemplary literary texts written by American and World authors such as Tennessee Williams, Sophocles, Emily Dickinson, J.D. Salinger and F. Scott Fitzgerald. Additionally, students will read informational pieces from historical figures such as Chief Joseph, Elie Wiesel, Ralph Waldo Emerson, and Thomas Jefferson. Based on their reading, students will cite textual evidence in discussion and in writing to support positions on issues raised. Students will continue to develop sentence building skills, grammar and usage skills, research skills, and vocabulary skills. Students will utilize these skills while advancing their aptitude in writing argumentative, informative, and narrative pieces. Students are assessed on individual and collaborative application of critical thinking skills while participating in class activities and discussions, completing assigned readings, writing paragraphs and multi-paragraph papers, composing creative and/or poetic works, researching and writing a research paper, making inferences, summarizing, analyzing, synthesizing, evaluating and sharing information through multi- media oral presentations.

## EN201 AMERICAN LITERATURE $(10,11,12)$

### 1.00 credit

This course will further develop students' writing and reading skills and will incorporate study skills, close reading, analyzing, discussing, listening, speaking and reflecting upon literature and informational texts. Students will read and analyze a variety of literature and informational texts, ranging from speeches to op-eds, as they continue to enhance their language skills through writing and responding to the various pieces. Students develop a deeper understanding of literary themes and an appreciation of America's contribution to literature from its beginnings in the 1600s to the present. Students analyze the form and content of reading assignments through class discussions, project-based assessments, and critical essays. Students also write a research paper and continue the development of vocabulary and grammar skills.

## EN201H AMERICAN LITERATURE HONORS $(10,11,12)$

## 1.0 credit

This course emphasizes writing, vocabulary, close reading, literary analysis, and literary criticism to encourage students to develop an appreciation of American literature. A survey of all genres of the various periods of American Literature forms the reading segment of the course. Students are expected to perform independent inquiry, participate in class, and complete homework and assignments utilizing resourceful, critical and creative thinking. Assessments in this course regularly require application, analysis, and synthesis of content. A research paper on a literary topic is assigned as a part of the writing component. This course prepares students for AP Literature and Composition. (Prerequisite: Literature and Composition 1 Honors, teacher recommendation).

## EN202 Creative Writing $(10,11,12)$ 0.50 credit

This one-semester course is for students who wish to explore writing creative fiction, non-fiction, drama, and poetry. Students regularly read selections from these genres and create a variety of written products. With some instructional support, students are expected to consistently use critical thinking skills to complete course assignments.

## EN301 GLOBAL PERSPECTIVES IN LITERATURE $(11,12)$

## 1.0 credit

This one-semester course focuses on contemporary and non-traditional works of literature from a variety of cultures (Asian, African, European, Latino and Middle Eastern). Works will include novels, poetry, drama, and short stories. Students will immerse themselves in the various cultures studied and gain an understanding of another world that exists and functions outside of their classrooms, their community and even their continent. Students regularly compose essays related to the readings. With some instructional support, students are expected to consistently use critical thinking skills to complete course assignments.

## EN302 MODERN WORLD LITERATURE I $(11,12)$

### 0.50 credit

Students will read modern works (both fiction and non-fiction) from around the world and use them as a starting point for gaining a broader understanding of points of view beyond their own. The course emphasizes reading, analyzing, discussing, and writing with particular emphasis on an individual's ability to apply critical concepts in the understanding and interpretation of various countries' cultures and literature, including his or her own.

## EN303 MODERN WORLD LITERATURE II $(11,12)$ 0.50 credit

Students will read modern works (both fiction and non-fiction) from around the world and use them as a starting point for gaining a broader understanding of points of view beyond their own. The course emphasizes reading, analyzing, discussing, and writing with particular emphasis on an individual's ability to apply critical concepts in the understanding and interpretation of various countries' cultures and literature, including his or her own.

## EN304 THE SHORT STORY $(11,12)$ 0.50 credit

This one-semester course examines in detail the development of the short story as a literary genre from the early nineteenth century to the present. Students are exposed to a wide range of diverse authors with unique literary voices from a variety of cultures. Students regularly compose essays related to the readings. With some instructional support, students are expected to consistently use critical thinking skills to complete course assignments.

## EN401 COLLEGE WRITING (12)

## 1.0 credit

College Writing offers students the opportunity to develop writing skills and practice writing formats at the college level. Essays of various genres, such as exposition, persuasion, argumentation, definition, description, narration, process-analysis, explication, cause and effect, comparison and contrast, literary criticism, division-classification, and exemplification are pursued. Revision of papers for conciseness, style, and accuracy advances the goals of astute grammatical usage, appropriate writing structures, and creative variations in style.

## EN501 ADVANCED PLACEMENT (AP) ENGLISH LANGUAGE AND COMPOSITION $(11,12)$ 1.00 credit

AP English Language and Composition is a college-level course that offers students the opportunity to earn college credit and/ or advanced college placement in English. This course focuses on reading, writing, and rhetoric, particularly analyzing how texts use rhetorical strategies to create meaning, purpose, and effect. Students will also study and compose essays integral to an introductory college composition course, such as narrative, analysis, argumentation, and a long-term research paper,
readings, writing using a variety of rhetorical strategies, peer editing and revising, investigating and writing a research paper. This course prepares students to take the AP exam.

## EN502 ADVANCED PLACEMENT (AP) LITERATURE AND COMPOSITION (11, 12)

### 1.00 credits

AP English Literature is a college-level course that offers students the opportunity to earn college credit and/or advanced college placement in English. Through class work and extensive outside reading, students learn to textually analyze, critically review, and comparatively evaluate a myriad of literary genres. Essay writing is a key component of this course. This course prepares students to take the AP Exam.

## EN601 COLLEGE CREDIT PLUS COMPOSITION I (MU - ENGL1001) $(11,12)$

### 3.00 MU credit hours/ 1.0 RGA credit

Process-based introduction to applying rhetorical principles to source-based writing and speaking with multimedia for diverse audiences.

## EN602 COLLEGE CREDIT PLUS COMPOSITION II (MU - ENGL1002) $(11,12)$

3.00 MU credit hours/ 1.0 RGA credit

Continuation of ENGL 1001. Focus on principles of rhetoric and composition. Investigation and practice of the uses of the written language in exposition, persuasion, and critical analysis.
(Prerequisite: EN601, ACT English with a minimum score of 25 , SAT Verbal with a minimum score of 600)

## ENGLISH ELECTIVES

Courses listed as an elective count as an elective for graduation but do not fulfill the English graduation requirement.

## EN204E PUBLIC SPEAKING (10, 11, 12)

0.50 credit (does not count as fulfilling the English RGA graduation requirement but may be used as an elective.)
This course will introduce the student to oral communication and presentation. Students will prepare, practice and present informative, demonstrative, extemporaneous, impromptu and narrative speeches, and as both speaker and listener, will edit, assess, and evaluate presentations from videotape. Students will compose and design advertisements and presentations using computer-generated graphics. Students are assessed on their individual performance in the following areas: weekly assignments and/or projects, small tests and homework assignments and presentations.

## EN603E COLLEGE CREDIT PLUS PUBLIC SPEAKING AND PROFESSIONAL COMMUNICATIONS (MU COMM1100) $(11,12)$ <br> 3.00 college credit/ 1 credit RGA (does not count as fulfilling the English RGA graduation requirement but may be used as an elective.)

Principles and extended practice of rhetorical and stylistic elements of written and oral presentations with emphasis in workplace interactions. Individual work in various oral presentations and writing analysis, including informative, persuasive, celebration and group speeches.

## HEALTH AND PHYSICAL EDUCATION DEPARTMENT

Health and one additional 0.50 credit of PE required

## PE101 HEALTH (9,10,11,12)

## 1.0 credit

This course concentrates on the decision-making process by encouraging students to make informed decisions that will enhance the capacity for growth, reverence for life, self-respect and respect for others. This course will investigate the following units: systems and diseases of the body, nutrition, drug and safety education, mental and emotional health, environmental issues, and consumer health. Students are assessed on individual performance in the following areas: written tests, projects, homework, and class participation.

## PE102 PHYSICAL EDUCATION $(\mathbf{9}, 10,11,12)$

### 0.50 credit

This course includes a developmental program of physical activities that promote fitness, critical thinking skills, self-confidence and social maturity. Students will develop new skills, become "team players", and develop an awareness of the benefits of physical activity while participating in individual and team sports. This course will include the following units: Frisbee golf, flag football, soccer, speedball, volleyball, basketball, badminton, weightlifting, floor hockey, physical fitness, indoor games, golf, softball, and cross-country. Students are assessed on individual performance in the following areas: class participation, and written tests.

## PE103 FITNESS FOR LIFE $(\mathbf{9}, \mathbf{1 0}, \mathbf{1 1}, \mathbf{1 2})$

### 0.50 credit

This course includes the development of knowledge, understanding, and positive attitudes regarding human movement as well as physical fitness. Emphasis will be placed on developing the basic components of physical fitness (flexibility, muscular strength and endurance, cardiovascular endurance, and body composition), and the promotion of lifetime sports. Students are assessed on individual performance in the following areas: class participation, written tests, individual projects, and a dress grade.

# MATHEMATICS DEPARTMENT <br> Graduation Requirement : 4.00 Mathematics Credits 

## MA101 ALGEBRA I (9)

### 1.00 credit

This first-year algebra course includes topics such as operations with polynomials, solving linear and quadratic equations, solving inequalities, writing and graphing linear equations, an introduction to functions, systems of linear equations and inequalities, word problems, rational expressions and equations, and radicals. A student's placement test determines placement.

## MA101H ALGEBRA I HONORS (9)

### 1.00 credit

This first-year algebra course includes topics such as operations with polynomials, solving linear and quadratic equations, solving inequalities, writing and graphing linear equations, an introduction to functions, systems of linear equations and inequalities, word problems, rational expressions and equations, and radicals. A student's entrance exam score determines placement in this course.
(Prerequisite: Math Placement test score)

MA201 $\operatorname{GEOMETRY}(9,10)$

### 1.00 credit

This course introduces mathematical proof and logical structure through exercises in both plane and solid geometry. Topics include the basic concepts of geometry, properties of triangles, quadrilaterals, polygons, circles, solids, congruence, similarity, area, and volume. This course uses instructional strategies to promote proactive students who consistently use critical-thinking skills to complete course assignments. Assessments place less emphasis on basic skills and greater emphasis on application and analysis of content. Algebra 1 is a prerequisite. Incoming freshmen who wish to enroll in this course must demonstrate Algebra 1 proficiency on the Geometry Qualifying Test. (Prerequisite: Passing grade in Algebra I or math placement test)

## MA201H GEOMETRY HONORS $(9,10)$

### 1.00 credit

This course introduces mathematical proof and logical structure through exercises in plane, solid, and analytic geometry. Topics include the basic concepts of geometry, properties of triangles, quadrilaterals, polygons, circles, solids, congruence, similarity, area, and volume. Students are expected to demonstrate independent inquiry and resourceful, critical, and creative thinking in class and homework assignments. Assessments in this course include application, analysis, and synthesis of content.
(Prerequisite: Algebra I teacher recommendation and 85\% or higher on Honors Algebra I final exam or $90 \%$ on Algebra I final exam.)

## MA202E PROBABILITY AND STATISTICS (10, 11, 12)

### 0.50 credit

This course is an elective course intended for students who plan to enter such fields as economics, business, education, psychology, sociology, mathematics, science, and medicine, all of which employ statistical analysis. Students will explore data by describing patterns and departures from patterns. Emphasis here is placed on interpreting information from graphical and numerical displays and summaries. Probability is the tool used for anticipating what the distribution of data should look like and thus, specifics of probability will be studied and how it pertains to distributions. Statistical inference and testing of hypotheses will be examined as time permits. Technology use is crucial and essential to the course. Students are assessed on individual performance in the following areas: assignments, class work, quizzes, projects/activities, and tests. Students will be using a TI- 84 Plus graphing calculator.

## MA203E PROBLEM SOLVING $(10,11,12)$

### 0.50 credit

This course is an elective course intended for those students wishing to practice and improve their problem-solving skills. The purpose behind this course is for students to master a multitude of strategies while at the same time building confidence in their abilities to solve problems that may seem totally unfamiliar. This course emphasizes the many ways in which problems can be solved. It will also benefit students preparing for college entrance exams, SAT's, PSAT's, ACT's, and other standardized exams. Students will study as many as 22 different problem-solving techniques. Students are assessed on individual performance in the following areas: assignments, class work, quizzes, projects and tests. Students will be using a TI-84 Plus graphing calculator.

## MA301 ALGEBRA II $(\mathbf{9}, \mathbf{1 0 , 1 1}, 12)$

### 1.00 credit

This full-year course offers advanced algebra concepts. Topics include data and linear representations and applications, linear, quadratic, polynomial, exponential, logarithmic, rational, radicals, functions, matrices, and conic sections. Students use inductive and deductive reasoning to justify logical conclusions in investigating and solving real world applications and recognize the connection between mathematical algorithms and other disciplines. This course encourages students to develop abstract and independent thinking through the use of concrete examples. Assessments emphasize basic skills with a focus on openended conceptual questions. (Prerequisite: Successful completion of Algebra I and Geometry).

## MA302 ALGEBRA II/TRIGONOMETRY (10, 11, 12)

### 1.00 credits

This course is a continuation of Algebra 1 including trigonometry and will put emphasis on four critical areas of focus: 1) inferences and conclusions from data, 2) polynomials, rational and radical relationships, 3) trigonometry of general triangles and trigonometric functions, and 4) modeling with functions. Multiple representations of concepts will also be examined. This course will include topics such as rational exponents, the complex numbers system, zeros and factors of polynomials, rational expressions, reasoning with equations and inequalities, systems of equations, linear, quadratic, exponential and logarithmic functions, modeling, transformations, trigonometric functions, unit circle,
trigonometric identities, making inferences and justifying conclusions. Students will be required to engage in the following mathematical practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning. Students are evaluated and assessed on individual performance in the following areas: homework, class work, projects/activities, papers, presentations, quizzes and tests. Students will be using a TI-84 plus graphing calculator.
(Prerequisite: Successful completion of Algebra I and Geometry, Geometry teacher recommendation)

## MA302H ALGEBRA II/TRIGONOMETRY HONORS $(\mathbf{1 0 , 1 1 , 1 2 )}$

### 1.00 credit

This course is a comprehensive and extensive study of Algebra 1 including trigonometry with a strong emphasis on applications and modeling from not only mathematics but also other disciplines using numerical, graphical, and analytical approaches. It will provide students with insights into mathematical abstraction and structure and at the same time and will put emphasis on four critical areas of focus: 1) inferences and conclusions from data, 2) polynomials, rational and radical relationships, 3) trigonometry of general triangles and trigonometric functions, and 4) modeling with functions. Students will deepen their understanding of relations and functions and expand their repertoire of familiar functions with an emphasis on transformations. Technological tools will be used to represent and to study the behavior of polynomial, exponential, rational, and periodic functions, among others. Students will develop an understanding of the algebraic properties that govern the manipulations of symbols in expressions, equations, and inequalities as well as become fluent in performing such manipulations. Conceptual understanding and the derivation of algebraic concepts will be emphasized. Students will be required to engage in the following mathematical practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning. Students are evaluated and assessed on individual performance in the following areas: homework, class work, projects/activities, papers, presentations, quizzes and tests. Students will be using a TI-84 plus graphing calculator.
(Prerequisite: Successful completion of Honors Algebra I and Geometry Honors, Geometry teacher recommendation)

## MA401 PRECALCULUS $(11,12)$

### 1.00 credit

This course is designed to provide a smooth transition into Calculus but is not a prerequisite for Calculus. This course uses numerical, graphical and algebraic approaches to all concepts. Because of this approach, a graphing calculator becomes an integral and necessary tool. All students will therefore use a graphing calculator ( $\mathrm{TI}-84^{+}$). Emphasis will be on the development of both abstract reasoning and practical application of mathematics to science, technology, and the social sciences. Topics studied may include but are not limited to functions (including trigonometric), operations on functions, geometric transformations of functions, inverse functions, solving types of equations and inequations from linear to higher order, exponential and logarithmic functions, sequences and series, systems of equations,
trigonometric equations, matrices, and vectors. In addition, there will be an emphasis on mathematical modeling, problem solving, and written/oral communication. Students are evaluated and assessed on individual performance in the following areas: daily homework, class work, projects/activities, quizzes and tests. (Prerequisite: Successful completion of Algebrall/Trigonometry, math teacher recommendation)

## MA402H DISCRETE MATHEMATICS HONORS (12)

### 1.00 credit

The technological advances of recent years have placed increased importance on certain areas of mathematics. While the impetus to study discrete mathematical concepts has come from the area of computer science, the value of these topics extends to social sciences, engineering and the natural sciences. Students in this course strengthen their mathematical modeling and reasoning skills and their ability to estimate, generalize, and simplify. This course covers such topics as: set theory and logic; elementary number theory; combinatorics and probability; algorithmic approaches to problem solving; and statistics.

## MA403H MULTIVARIABLE CALCULUS HONORS (12 <br> (12)

### 1.00 credit

This course is the equivalent to the third semester of college-level calculus. Topics include limits and continuity of functions of several variables, partial derivatives, LaGrange multipliers, vector-valued functions; double and triple integrals with applications; change of variables to polar, cylindrical, and spherical coordinates, and integrals over paths and surfaces. Upon successful completion of this course, students earn weighted points on their transcripts equivalent to those given to students in AP classes. (Prerequisite: Successful completion or 95\% or more on the final exam of AP Calculus BC)

## MA404 CALCULUS $(11,12)$

### 1.00 credit

This course is the equivalent of one semester of College Calculus. This course is an introduction to differential and integral calculus including work in analytic geometry. It is offered to students who have successfully completed a precalculus course and have obtained the recommendation of the Mathematics Department. (Prerequisite: Successful completion of PreCalculus, 95\% or more on Algebra II/Trig final exam, Honors Algebra II/Trig teacher recommendation)

## MA501 ADVANCED PLACEMENT (AP) CALCULUS AB $(11,12)$

### 1.00 credit

This course is the equivalent of one semester of College Calculus. This Advanced Placement course is an introduction to differential and integral calculus including work in analytic geometry. It is offered to students who have successfully completed a precalculus course and have obtained the recommendation of the Mathematics Department. This course prepares students to take the Calculus/AB Advanced Placement Examination at the conclusion of this course. (Prerequisite: Successful completion of PreCalculus, 95\% or more on Algebra II/Trig final exam, Honors Algebra II/Trig teacher recommendation)

## MA502 ADVANCED PLACEMENT (AP) CALCULUS BC $(11,12)$

### 1.00 credit

This course is the equivalent of a full-year of college-level calculus. Topics include limits, continuity, derivatives and their applications, integrals and their applications, improper integrals, slope fields, Euler's method, motion in the plane, parametric and polar functions, vector-valued functions, and sequences and series. This course prepares students to take the Advanced Placement examination for Calculus BC (Prerequisite: Successful completion or 95\% or more on the final exam of AP Calculus AB)

## MA503 ADVANCED PLACEMENT (AP) STATISTICS $(11,12)$

### 1.00 credit

AP Statistics is the high school equivalent of a one-semester, introductory college statistics course. Students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments. Probability and simulations aid students in constructing models for chance behavior. Sampling distributions provide the logical structure for confidence intervals and hypothesis tests. Students use a TI-84 graphing calculator, Fathom, and Minitab statistical software, as well as Web-based java applets to investigate statistical concepts. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data. This course prepares students to take the Advanced Placement Statistics Exam. (Prerequisite: Successful completion of Algebra II/Trigonometry, math teacher recommendation)

MA601 COLLEGE CREDIT PLUS CALCULUS 1 (MU - MATH1450) (11, 12)

### 4.00 MU credit hours/1.00 RGA credit

Functions of one variable, limits, and continuity. The derivative and the definite integral with applications. (Prerequisite: "C" or better in Pre-calculus Honors, previous teacher recommendation)

## MA602 COLLEGE CREDIT PLUS ELEMENTARY STATISTICS (MU - MATH1700) (11, 12)

### 3.00 MU credit hours/ 1.0 RGA credit

Fundamental theory and methods of statistics without calculus. Descriptive statistics, elements of probability theory, estimation, tests of hypotheses, regression, correlation, introduction to computer methods of statistical tabulation and analysis. Recommended for students seeking a general introduction to statistical concepts and not intended to be a final course in statistics for students who need a thorough working knowledge of statistical methods. Prereq: Two years of college preparatory mathematics. May not be taken for credit by students who have received college credit for another probability or statistics course. (Prerequisite: Successful completion of Algebra II- Trigonometry, math teacher recommendation)

## SCIENCE DEPARTMENT

## Graduation Requirement 4.00 Science Credits

## SC101 PHYSICAL SCIENCE (9)

### 1.00 credit

This course introduces students to key concepts and theories that provide a foundation for further study in other sciences and advanced science disciplines. Physical science comprises the systematic study of the physical world as it relates to fundamental concepts about matter, energy and motion. A unified understanding of phenomena in physical, living, Earth and space systems is the culmination of all previously learned concepts related to chemistry, physics, and Earth and space science, along with historical perspective and mathematical reasoning. This course will focus on the following broad topics: the study of matter, energy and waves, forces and motion and the universe. Science as inquiry and application of concepts learned will be stressed throughout the year. Reading scientific journals and literature and their subsequent analysis will also be emphasized. Students are assessed on individual performance in the following areas: examinations, laboratory exercises, laboratory reports, class presentations, homework/class work and class participation.

## SC201 BIOLOGY $(9,10)$

### 1.00 credit

This course will investigate the composition, diversity, complexity and interconnectedness of life on Earth. Fundamental concepts of heredity and evolution provide a framework through inquiry-based instruction to explore the living world, the physical environment and the interactions within and between them. Students engage in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills and realworld application. The main topics to be covered in this course are heredity, evolution, diversity and interdependence of life, and cells and their processes. Science as inquiry and application of concepts learned will be stressed throughout the year. Reading scientific journals and literature and their subsequent analysis will also be emphasized. Students are assessed on individual performance in the following areas: examinations, laboratory exercises, laboratory reports, class presentations, research, homework/class work and class participation. (Prerequisite: Department Placement)

## SC201H BIOLOGY HONORS $(9,10)$

### 1.00 credit

This course will investigate the composition, diversity, complexity and interconnectedness of life on Earth. Fundamental concepts of heredity and evolution provide a framework through inquiry-based instruction to explore the living world, the physical environment and the interactions within and between them. Students engage in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills and realworld application. The main topics to be covered in this course are heredity, evolution, diversity and interdependence of life, and cells and their processes. Because of the nature of this course, students are expected to be highly motivated learners in order to gain a more detailed understanding of the content
and its related concepts. Science as inquiry and application of concepts learned will be stressed throughout the year. Reading scientific journals and literature and their subsequent analysis will also be emphasized. Students are assessed on individual performance in the following areas: examinations, laboratory exercises, laboratory reports, class presentations, research, homework/class work and class participation. (Prerequisite: Honors Math, teacher recommendation)

## SC301 CHEMISTRY $(10,11)$

### 1.00 credit

This course is intended for those students with a solid math background who are developing an interest in the sciences. This course will develop the following skills: measurement, metrics and measurement instruments; classification and descriptions of matter and energy; characteristics of properties of gases, liquids and solids; atomic theory and quantum mechanics; electron arrangement and bonding patterns; writing, balancing, and interpreting equations; and stoichiometry. Students will develop skills in experimental design and improve basic comprehension skills, organizational skills, scientific inquiry and reasoning. Students are assessed on their individual performance in the following areas: examinations, laboratory exercises, cooperative learning activities and authentic assessments. (Prerequisite: Biology, enrollment in Algebra II or higher)

## SC301H CHEMISTRY(HONORS) $(10,11)$

### 1.00 credit

This course is designed to develop the student's skills in the following areas: measurement, metrics and measurement instruments; classification and descriptions of matter and energy; characteristics of properties of gases, liquids and solids; atomic theory and quantum mechanics as relating to compounds; electron arrangement and bonding patterns; writing, balancing, and interpreting equations; stoichiometry and solutions. This course will focus on the development of skills in experimental design, scientific writing, and improving basic comprehension skills, organizational skills, scientific inquiry and reasoning. Students are assessed on their individual performance in the following areas: examinations, laboratory exercises, cooperative learning activities and authentic assessments. (Prerequisite:
Successful completion of Honors Biology, enrollment in Honors Algebra II/Trigonometry)

## SC401 PHYSICS $(11,12)$

### 1.00 credits

This course explores the natural laws of the physical world we live in as well as the frontier of space, including laws of motion, energy, gravity, properties of matter, heat, sound, light, electricity and magnetism. This course will encourage development in the following areas: comprehension skills, organizational skills, scientific inquiry and scientific reasoning. Students are assessed on their individual performance in the following areas: examinations, laboratory exercises, projects, homework, class work and class participation. (Prerequisite: Chemistry, enrollment in Algebra II or higher)

## SC402 HONORS PHYSICS $(11,12)$

### 1.00 credits

This course is designed with a conceptual and mathematical approach to the exploration of the physical world. This course will review the conceptual and mathematical prerequisites for Calculus and Physics and then commence with the topics of motion, forces and energy. In addition to traditional classroom instruction and lab activities, concepts may be taught using a STEM approach. This will enhance students' critical thinking and problem-solving skills. Because concepts, applications and techniques in both Calculus and Honors Physical will be related, students enrolling in Honors Physics must also enroll in Calculus - 246. Honors Physics and Calculus will be taught concurrently in back-to-back periods. Students must be recommended by their current science teacher in order to enroll in the class. Students may be assessed on individual performance in the following areas: homework, class work, projects/activities, labs, quizzes and tests. Students will be using a TI-83 plus, a TI-84 plus graphing calculator. (Prerequisite: Honors Algebra II/Trigonometry, Biology, Chemistry)

## SC202E BIOTECHNOLOGY $(\mathbf{1 0 , 1 1})$

 0.50 creditCOURSE DESCRIPTION: Biotechnology 1-2 is a course designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology. Students attain knowledge about the field of biotechnology and deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the biotechnology industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, research projects, guest speakers, and workplace visits. The objectives covered in this course are both academic and technical in nature and are presented in a progressively rigorous manner. (Prerequisite: Algebra I, Biology)

## SC203E BIOETHICS $(11,12)$ 0.50 credit

Bioethics considers the ethical principles and values relevant to life, and their application to the use of technology (particularly medical technology) to maintain, extend, and even produce human life. This course will provide students with an understanding of bioethics main terms and concepts, as well as, decision-making procedures that students can use to discern and defend moral courses of action. Our two main areas of consideration are life's beginning-reproductive ethics-and life's end, but we will also apply our analyses to the questions of organ donation and human experimentation. These discussions will be relevant to all thinking people on a practical level; most of us will face them in some form in our individual lives, and bioethical questions face all of us socially. This course should be especially relevant to those who plan medical careers. (Prerequisite: Biology, Chemistry)

## SC204E EARTH SCIENCE LAB $(10,11)$

## 1.0 credit

Earth Science Lab concentrates on the functions of earth's systems. Emphasis is placed on earth's materials and forces, as well as geology and meteorology. This course will focus on skill building,
scientific reasoning, application of scientific principles, graphing, and interpretation of data.
(Prerequisite: Biology Lab, successful completion of Algebra I, and department approval)

## SC205E ENVIRONMENTAL SCIENCE $(10,11)$

### 1.00 credit

This course is designed to introduce students to major ecological concepts and the environmental problems that affect the world in which we live. Students will investigate, through inquiry, labs, project work, presentations, and possible field experiences, topics such as parts of an ecosystem, adaptation to the environment, ecological succession, human population, endangered species, conservation of resources, energy sources and their uses, major global/environmental problems, human interaction with the environment, and personal and civic responsibility. The curriculum focuses on concepts that are real-life issues. This course will promote awareness and understanding of practical everyday problems that affect students and their families. Students are assessed on their performance in the following areas: examinations, laboratory activities, projects and class work.

## SC206E HUMAN ANATOMY \& PHYSIOLOGY I $(10,11)$

### 0.50 credit

This course will further investigate the following: major organ systems of the human body; the structure and function of each organ system; interrelationships among and between each organ system; and, anatomical dissection and identification of the organ systems. Students will use logic and reasoning in scientific inquiry. Students are assessed on their individual performance in the following areas: examinations, a research project or report, laboratory exercises, class presentations, homework/class work, and class participation. Students will be expected to read and discuss scientific journals.
(Prerequisite: Successful completion of Biology)

## SC207E HUMAN ANATOMY \& PHYSIOLOGY II $(10,11)$

### 0.50 credit

This course is a continuation of Anatomy and Physiology and will cover major organ systems not covered in Anatomy and Physiology, the structure and function of these systems, and interrelationships among and between the organ systems. Students will use logic and reasoning in scientific inquiry. Students are assessed on their individual performance in the following areas: examinations, research, laboratory exercises, class presentations, homework/class work, and class participation. Students will be expected to read scientific journals. (Prerequisite: C or better in Human Anatomy and Physiology II)

## SC208E ENGINEERING (10, 11)

### 1.00 credit

In this course, students explore how modern engineers help improve the world through diverse engineering fields, such as product design, mechanical design, infrastructure, and sustainability. Students learn and use some of the cutting edge tools engineers use in robotics, 3D modeling, programming, and prototyping.

## SC501 ADVANCED PLACEMENT (AP) BIOLOGY $(11,12)$

### 1.00 credit

This course will further investigate the following: molecular basis of life and cells including biochemistry, cells, and transformation of energy; principles and theories of genetics and evolution including molecular genetics, heredity, and evolution; and, organismal and population biology including the interrelatedness of living things, diversity and the Kingdoms, and principles of ecology. Students will follow the Advanced Placement curriculum that emphasizes organizational and critical thinking skills while highlighting analysis, synthesis, interpretation of data, and independent research. The student will be expected to independently conduct research, design experiments, be highly motivated, be a proficient user of technology, and write scientifically, as well as use logic and reasoning in scientific inquiry. The student must appropriately apply the scientific method to challenging scientific concepts. Students are assessed on their individual performance in the following areas: examinations, quizzes, laboratory exercises and reports, and class participation. Students will be expected to read and discuss scientific journals and literature. (Prerequisites: Honors Biology, Honors Physics and Honors Chemistry)

## SC502 ADVANCED PLACEMENT (AP) CHEMISTRY $(11,12)$

### 1.00 credit

This course will further investigate the following: the structure of matter including atomic properties, bonding, and half-lives; states of matter including gases, liquids and solids, and solutions; reactions including types, stoichiometry, equilibrium, kinetics, thermodynamics; and descriptive chemistry. Students will follow the Advanced Placement curriculum that emphasizes organizational and critical thinking skills while highlighting analysis, synthesis, interpretation of data and independent research. The students will develop skills, through classroom and laboratory activities and projects, in technical and APA scientific writing, as well as improve basic comprehension skills, organizational skills, scientific inquiry and reasoning. Students must earn a B or better in Chemistry - 425. Students are assessed on their individual performance in the following areas: examinations, laboratory exercises and homework.
(Prerequisite: Honors Biology, Honors Chemistry, enrollment in Pre-calculus)

## SC503 ADVANCED PLACEMENT (AP) ENVIRONMENTAL SCIENCE $(11,12)$

### 1.00 credit

Designed to be the equivalent of a one-semester introductory college course in environmental science, the curriculum for this course follows the syllabus published by the Advanced Placement Program of The College Board. Included in the course are laboratory and field experiences. Ecological principles; population, economics and environmental health; land and biological resources; physical resources; energy resources; and society and the environment are topics of study. At the completion of this course, students will have an opportunity to take the AP exam. A satisfactory score on the multiple choice and free-response portions of this exam may result in college credit from cooperating colleges and universities.

## SC504 ADVANCED PLACEMENT (AP) PHYSICS 1: ALGEBRA BASED $(11,12)$

### 1.00 credit

This course will explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory circuits. This course is based on six "Big Ideas" as described in the College Board AP Physics syllabus. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students will follow the Advanced Placement Curriculum that emphasizes organizational and critical thinking skills while highlighting analysis, synthesis, interpretation of data and independent research. Students are assessed on their individual performance in the following areas: examinations, quizzes, laboratory exercises and reports, and class participation. (Prerequisites: Algebra II/Trig)

## SC505 ADVANCED PLACEMENT (AP) PHYSICS C - MECHANICS $(11,12)$

### 1.00 credit

AP Physics C: Mechanics is a calculus-based, college-level physics course. It covers kinematics; Newton’s laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; oscillations; and gravitation. (Prerequisite: Concurrently enrollment in Calculus)

## SC506 ADVANCED PLACEMENT (AP) PHYSICS $2(11,12)$

### 1.00 credit

AP Physics 2 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, waves, and probability. (Prerequisite: AP Physics 1)

## SC507 ADVANCED PLACEMENT (AP) PHYSICS C - ELECTRICITY AND MAGNETISM $(11,12)$

### 1.00 credit

AP Physics C: E\&M is a calculus-based, college-level physics course. It explores concepts such as electrostatics, conductors, capacitors and dielectrics, electric circuits, magnetic fields, and electromagnetism. You'll do hands-on laboratory work and in-class activities to investigate phenomena and use calculus to solve problems. (Prerequisite: Concurrently enrollment in Calculus)

## SC601 COLLEGE CREDIT PLUS GENERAL CHEMISTRY 1 (MU-CHEM 1110) $(11,12)$

### 4.00 MU credit hours/1.00 RGA credit

Introductory college chemistry. Fundamental principles of chemistry including stoichiometry, physical states of matter, energy relationships, periodic table, atomic and molecular structure and solutions. The following mathematical concepts are used in this course: Scientific notation, logarithms, the quadratic equation and proportionality. (Prerequisite: completion of Chemistry Honors C or higher or a B in Chemistry, and minimum of completion of Algebra II- Trigonometry)

## SC602 COLLEGE CREDIT PLUS GENERAL PHYSICS 1 (MLU-PHYS1001) (11, 12)

### 4.00 MU credit hours/ 1.00 RGA credit

Newton's laws, linear motion, circular and harmonic motion, fluids, heat, kinetic theory, wave motion and sound; includes lab. (Prerequisite: Algebra II - Trigonometry with B or above)

## SC603 COLLEGE CREDIT PLUS PRINCIPLES OF BIOLOGY 1 (MU-BIO1001) (11, 12)

3.00 MU credit hours/ 1.00 RGA credit

Covers the molecular basis of life, biology of the cell, genetics and evolution in a genetic context.
(Prerequisite: Biology or English Placement Exam, Physical Science)


## SOCIAL STUDIES DEPARTMENT

Graduation Requirement: 3.00 Social Studies Credits

## SS101 WORLD ISSUES (9,10,11,12)

### 1.00 credit

This course is designed to develop the social studies skills that will prepare students for the other social studies courses they will take throughout their academic career. Accordingly, this course will focus on developing skills in the following social studies domains: History, Economics, Civics/Government, and Geography. Students will build essential competencies, conceptual understandings, and the extending reasoning skills that will allow them to better think historically.

## SS201 UNITED STATES HISTORY $(10,11,12)$

### 1.00 credit

This course will focus on the growth and development of the United States in the late $19^{\text {th }}$ and $20^{\text {th }}$ centuries. Students will study the economic impact of the Industrial Revolution, the rise of big business and the national labor movement and compare it to the Information Revolution and the changes in business and labor since the 1870 s. Students will trace the shift from isolationism to U.S. involvement in world affairs including wars, United Nations police actions, and the social changes that have occurred for women and minorities in this century. Students are assessed on their individual performance in the following areas: tests, essays, group projects, class participation, and research projects.

## SS301 WORLD HISTORY (9,10,11,12)

### 1.00 credit

This course will focus on the major events of the $20^{\text {th }}$ century including, but not limited to, the First and Second World Wars as well as the major events of the Cold War. Students will investigate the impact these events have on nations and people throughout the world, with a special focus on Asia, the Middle East, Africa and South America. The class will also learn about how the past events of these regions inform the events occurring in the regions during this period. Students will work with primary and secondary sources, engage in academic writing, discussions and engage in historical analysis of world events.

## SS401 GOVERNMENT \& MACROECONOMICS $(11,12)$

### 1.00 credit

This course will trace the historical and theoretical origins of American government; the constitutional principles of popular sovereignty, limited government, federalism and separation of power; and, explain the roles of Congress, the President and the Court system. Students must explain the fundamental concepts of capitalism and the role of government in a mixed-market economy. Students are assessed on their individual performance in the following areas: knowledge of U.S. government roles and functions, knowledge of economics concepts, reading and completing assignments, note taking and outlining, defining terms and participation in class and in small group activities.

## SS102E GEOGRAPHY $(9,10,11,12)$

## 1.0 credit

Geography is an introduction to the study of people of the world and their ways of life. The introductory unit emphasizes map and globe use and reading including place location and the interpretation of geographical data. Political and economic systems, climate and vegetation patterns, physical regions and other man-land topics are studied. With this background, the remainder of the course is devoted to the study of the various culture regions of the world. A mapping/writing research project is required each semester.

## SS103E INTRODUCTION TO PHILOSOPHY (9, 10, 11, 12)

## 1.0 credit

A challenging elective course that examines the foundations of logic, ethics and epistemology in the classical tradition. Primary sources from the classical world, particularly Greece, constitute the main emphasis of reading and discussion along with significant works by modern authors. A high degree of competence and confidence in reading and writing is encouraged.

## SS202E AFRICAN AMERICAN HISTORY $(10,11,12)$ 0.50 credits

This course provides a broad historical survey of the African-American experience in the United States. The course begins with an introduction to the history and culture of West Africa before 1600 and continues from the colonial period of American history through the civil rights movement and issues concerning race today. Students must demonstrate their mastery of this material through written assignments. Course Goals: Students will... 1. Experience the history and culture of African Americans through reading, discussion, and activities. 2. Analyze the significant events and personalities that have shaped African American History. 3. Develop their ability to read and interpret various types of history. 4. Develop their ability to write historically.

## SS203E CRIMINAL JUSTICE $(10,11,12)$

### 0.50 credit

Criminal Justice is an introduction to the inner workings of the three significant criminal justice functions in the United States, Law Enforcement, Courts and Corrections. The course will give the students an overview of policing in America, the historical development of policing internationally and locally and the implementation of community based policing and criminal investigations. The course will also focus on the realities of enforcement and the apprehension of criminals at the federal, state and local level. The course will also discuss and explain the prosecution, disposition and incarceration of those suspected of committing criminal offenses. During the year, an emphasis will be placed on developing reading, writing and interpersonal communication skills, critical thinking, logical reasoning and problem solving skills. The ability of the students to deal with stress and interact with people in various settings will be emphasized as well. Students will learn the value of honesty and integrity as it relates to working in law enforcement.

## SS204E MICROECONOMICS (10,11,12)

### 1.00 credit

This course will introduce the supply/demand foundation in the market economy. The framework for learning about consumer behavior and analyzing consumer decisions will be addressed. International trade, operation of capital markets, equity and efficiency trade-offs will be analyzed in response to the economy. Students are assessed on individual performance in the following areas: projects, co-operative activities, homework, class participation, simulation exercises and chapter tests.

## SS205E PSYCHOLOGY (10, 11,12)

### 1.00 credit

This course is an introduction to the study of human behavior. This course will survey major psychological concepts and areas of study including emotions, motivation, personality, abnormal behavior, consciousness, developmental psychology, thinking and reasoning. Students will employ a variety of skills such as interpretation, experimentation, and evaluation. Students are required to prepare a research assignment on a psychology-related issue, theory, and/or concept. Students will participate in role-playing, large and small group discussion. Students are assessed on their individual performance in the following areas: examinations, exercises, notebooks, class presentations, portfolios, research projects, research papers, homework/class work, and class participation.

## SS302E HISTORY OF HUMAN RIGHTS $(11,12)$ 0.50 credits

Students will learn about the Universal Declaration of Human Rights as a framework for understanding what human rights are and what it means to uphold the dignity of all people. Students will also connect to the idea of universal human rights and by making the connections to home. This is what Eleanor Roosevelt envisioned. Students will explore how World War II and the Holocaust led to the examination of human behavior and the idea of our universe of obligation. This course will also connect to SEL (Social Emotional Learning) and provide the historical context to human rights across the world. Students will analyze what rights are and what they mean in our world. We will also examine justice in the face of genocide. Genocide will be studied under the lens of the effects of prejudice and stereotyping. At the conclusion of the course, students will prepare a project on Human Rights.

## SS501 ADVANCED PLACEMENT (AP) GOVERNMENT, POLITICS AND ECONOMICS $(11,12)$

 1.00 creditAdvanced Placement U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

## SS502 ADVANCED PLACEMENT (AP) HUMAN GEOGRAPHY $(11,12)$

## 1.0 credit

Advanced Placement Human Geography is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students will employ spatial concepts and landscape analysis to examine the socio economic organization of the planet and the environmental consequences this has caused. Students also learn about the methods and tools geographers use in their research and applications. Students who enroll in this course will be prepared to take the AP Human Geography exam in May.

## SS503 ADVANCED PLACEMENT (AP) MACROECONOMICS $(10,11,12)$

### 1.00 credit

This course is one semester in length, offered to students of above-average ability. This course gives students a thorough understanding of the basic principles of a market economy. Students learn about national income and price determination and become familiar with economic performance measures, economic growth, and international economics. This course meets the graduation requirement and results in the AP Examination at the end of the year, administered by the College Board.

## SS504 ADVANCED PLACEMENT (AP) MICROECONOMICS $(10,11,12)$ 1.00 credit

The purpose of the AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. Students will be expected, but not required, to take the College Board Advanced Placement test in Microeconomics in the spring.

## SS505 ADVANCED PLACEMENT(AP) PSYCHOLOGY $(10,11,12)$

### 1.00 credit

Advanced Placement Psychology is an introduction to the exciting field of the study of human behavior. Students will be introduced to concepts in each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use to answer questions such as why our memory fails us or how we can learn more efficiently, why we conform or obey authority figures. The course also includes information about how our brain and body process information, child and adolescent development, mental illness and treatment, sensation and perception, social psychology, and motivation and emotion. Students who enroll in this course will be prepared to take the AP Psychology exam in May.

## SS506 ADVANCED PLACEMENT (AP) UNITED STATES HISTORY $(11,12)$

### 1.00 credit

Advanced Placement U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In this course students investigate significant events,
individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. This course also provides eight themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; work, exchange and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures.

## SS507 ADVANCED PLACEMENT (AP) WORLD HISTORY $(9,10)$ 1.00 credit

Advanced Placement World History is designed to be the equivalent of an introductory college or university modern world history course. In this course students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment; cultural developments and interactions, governance, economic systems, social interactions and organizations, and technology and innovation.

## SS508 ADVANCED PLACEMENT (AP) COMPARATIVE GOVERNMENT AND POLITICS $(11,12)$

## 1.0 credit

AP Comparative Government and Politics is an introductory college-level course in comparative government and politics. The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students cultivate their understanding of comparative government and politics through analysis of data and text-based sources as they explore topics like power and authority, legitimacy and stability, democratization, internal and external forces, and methods of political analysis.

## SS509 ADVANCED PLACEMENT (AP) EUROPEAN HISTORY $(11,12)$

## 1.0 credit

Advanced Placement European History examines the major themes in European history from the Renaissance to the present. Through lectures, readings, historical research, independent study, and critical analysis of original source materials, students investigate the governments, science, technology, and ideas that developed in Europe, as well as the conflicts, wars, and imperialism that are fundamental to understanding today's world. Students are required to take the AP European History exam at the end of the course and may earn college credit.

SS601 COLLEGE CREDIT PLUS US HISTORY SINCE 1865 (MU - HIST1121) $(10,11,12)$

### 3.00 MU credit hours/RGA 1.0 credit

The United States from the Civil War era to the present, with consideration of political, cultural, and economic institutions and ideas.

## SS602 COLLEGE CREDIT PLUS INTRODUCTION TO US GOVERNMENT (MU - POSC2201) $(\mathbf{1 0}, 11,12)$

### 3.00 MU credit hours/RGA 1.0 credit

Problems of organizing and using governmental power at the national level. The principles of the U.S.
Constitution. The Presidency, Congress and the federal judiciary. Public opinion, elections, political parties and interest groups. Issues of public policy.

## SS603 COLLEGE CREDIT PLUS GENERAL PSYCHOLOGY (MU - PSYC1001) $(11,12)$

### 3.00 MU credit hours/ RGA 1.0 credit

Introduction to scientific psychology: biological bases of behavior; perception; principles of learning; intelligence and personality testing; current theories of personality; conflict, adjustment and mental health; interpersonal relations; social processes; applications of psychological principles to human affairs.

## SS604 COLLEGE CREDIT PLUS HUMAN GEOGRAPHY (MU - ANTH2203) $(11,12)$

3.00 MU credit hours/ RGA 1.0 credit

Description and world distribution of landscapes with (1) an analysis of past and present interplay among land forms, biota, and human activity; (2) an investigation into the manner in which culture is both restricted and stimulated by different habitats; and (3) a critique of the ecological problems resulting from modifying the landscape. Fulfills geography requirement for social studies teaching certification.

# VISUAL AND PERFORMING ARTS DEPARTMENT 

Graduation Requirement: 1.00 Fine Arts Credit

## AR101 ART \& MUSIC APPRECIATION (9,10,11,12) <br> 0.50 credit

This interdisciplinary course engages students in activities that explore the parallels between the elements of art and music through hands-on projects. By making "the ordinary into the extraordinary" in visual and auditory art, students will explore themes such as identity and community as they become more adept at observing, discussing and making art in unexpected places. First quarter assignments instill understanding of the elements of art (line, color, shape, value, space, texture, form) and of music (melody, timbre, rhythm, texture, tonality, dynamics and song structure) through individual and small group tasks. Major projects in the second quarter employ a mixture of these elements through both individual and collaborative work.

## AR102 WESTERN ART HISTORY $(\mathbf{9}, \mathbf{1 0 , 1 1 , 1 2 )}$

## 1.0 credit

Students will be actively involved in art competitions. Students will study and become familiar with various art movements/periods, artists and their styles. Students are evaluated and assessed on their individual performance in the following areas: research and written reports, studio work, sketchbooks/journals and critiques. Students must have successfully completed two other art courses. Students are required to submit a working portfolio prior to entrance. Students are required to visit one museum and/or art gallery.

## AR103 CALLIGRAPHY $(9,10,11,12)$

### 0.50 credit

This course is about the art of beautiful writing and aesthetically pleasing design. This course focuses on two or three specific scripts and also includes learning graphic design basics including the elements and principles of design, page layout design and how these things affect a viewer. Students will use different media techniques and demonstrate their improved skills through written assignments and projects. Students are assessed on their individual performance in the following areas: care of studio, equipment and materials; daily classwork, originality and thought, improvement, and completion of projects, written tests and/or quizzes. Lab Fees cover two practice markers and miscellaneous other materials. Students may purchase their own calligraphy pen set to use for the course.

## AR104 DIGITAL PHOTOGRAPHY \& BEGINNING PHOTOSHOP $(9,10,11,12)$ 0.50 credit

This course emphasizes the creative and artistic sides of photography and provides students with rudimentary skills and photographic composition, photo editing, lighting, and storytelling. Students are expected to take photographs outside of class for most assignments and therefore should be highly motivated. In class, Adobe Lightroom and Photoshop will be used to enhance imagery therefore beginning level Photoshop skills will also be developed. Photoshop basics include but are not limited to:
importing images, image editing, layering, etc. Because there is no art fee, students can be expected to print photographs outside of school for submission. Students are evaluated and assessed on individual performance in the following areas: daily classwork, homework, quizzes, tests, projects, originality, progression and mastery of skills. Students will be required to have access to a DSLR camera OR camera phone.

## AR105 DRAWING I $(\mathbf{9}, \mathbf{1 0}, \mathbf{1 1}, 12)$

### 0.50 credit

This course is an introduction to basic classical drawing techniques. Students will develop the skill of observation and the ability to translate what they observe onto paper. This course will focus on the development and use of the elements and principles of design, basic drawing techniques, various drawing media and compositional studies. Students will produce a variety of realistic and expressionistic artworks based on still life, life studies, personal/emotional experiences and imagination. Students are assessed on individual performance in the following areas: daily class work (including care of materials and equipment), homework, quizzes, tests, projects, progression and/or mastery of skills and design qualities.

## AR106 GRAPHIC DESIGN I $(\mathbf{9}, \mathbf{1 0 , 1 1 , 1 2 )}$ 0.50 credit

Explore the creative and useful field of graphic design and visual communication in this digitally based course. Apply your art skills and experience and discover their use in a potential career. Digital graphic design skills produce strong and clearly communicated images that inform, persuade, and command attention. This course familiarizes the student with current methods, techniques, and technology employed in the field of advertising to develop a student portfolio. Graphic design is structured to emulate a professional setting and offers exposure to graphic design related careers.

## AR107 JOURNALISM I $(9,10,11,12)$

### 1.00 credit

This course incorporates the basic concepts and processes of journalistic writing, photography, graphic/layout design and marketing in the pursuit of the ultimate goal of the class, to produce the Ready Global Academy yearbook. Knowledge and skills will be acquired in the use of the designated yearbook computer program. Students are assessed on individual performance in the following areas: written quizzes/tests, completion of assigned DPS (double page spreads), marketing performance (required ad sales), adherence to deadlines and class participation (fundraisers, photo assignments, and care and maintenance of equipment and materials). This course will require work outside of the regular hours of the class: before or after school, weekends and extended breaks.

## AR108 JOURNALISM II $(\mathbf{1 0 , 1 1 , 1 2 )}$

### 1.00 credit

This course is an elaboration of the basic concepts and processes of journalism taught in Journalism I with emphasis on taking leadership roles in specific areas of the production of the Ready Global Academy yearbook. Advance applications of the designated yearbook program will be required.

Students are assessed on individual performance in the following areas: leadership performance, written quizzes/tests, completion of assigned DPS (double page spreads), marketing performance (required ad sales), adherence to deadlines and class participation (fundraisers, photo assignments, and care and maintenance of equipment and materials). This course will require work outside of the regular hours of the class: before or after school, weekends and extended breaks. (Prerequisite: Journalism 1)

## AR109 MEDIA PRODUCTION \& BEGINNING ADOBE PREMIERE $(\mathbf{9}, \mathbf{1 0 , 1 1 , 1 2 )}$

### 0.50 credit

This course emphasizes the practical, creative and artistic sides of beginning level video production. This course provides students with rudimentary skills in filming and shooting digital video, lighting, producing, editing and storytelling. Students will use iMovie and Adobe Premiere to create their final works. Students are expected to shoot video outside of class for most assignments and therefore should be highly motivated. Students will use Google drive to upload video clips for editing and CANVAS for submitting work. There will be group work and students will receive a partial group grade. Students are evaluated and assessed on individual performance in the following areas: daily classwork, homework (recording of video), quizzes, tests, originality, project level progression and mastery of skills. Students will be required to have access to a video recording device (phone, camcorder, GoPro, etc.).

## AR110 PAINTING $(\mathbf{9}, \mathbf{1 0}, \mathbf{1 1}, 12)$

### 0.50 credit

This course is an exploration of painting media and subjects, and includes still life, portraiture, figure painting, and expressive painting. Students are assessed on individual performance in the following areas: daily class work (including care of materials and equipment), homework, quizzes, tests, projects, progression and/or mastery of skills and design qualities.

## AR501 ADVANCED PLACEMENT (AP) ART HISTORY $(10,11,12)$

## 1.0 credit

One year One unit AP Art History is a full-year elective course, which prepares students for the AP Art History Exam. The curriculum supports visual literacy by providing a deep understanding of social, political, historical, and cultural events spanning world history, from prehistoric art to art of the postmodern 21st century.

## AR502 ADVANCED PLACEMENT (AP) MUSIC THEORY $(10,11,12)$

### 1.00 credit

This course introduces music students to musicianship, theory, musical materials, and procedures. The course integrates aspects of melody, harmony, texture, rhythm, form, musical analysis, elementary composition, and, to some extent, history and style. Musicianship skills such as dictation and other listening skills, sight-singing, and keyboard harmony are considered an important part of this theory course. AP Music Theory is offered every other year. Prerequisites include consent of the teacher based upon the ability to read and write musical notation and a minimum of one year of previous music performance or theory experience.

## AR503 ADVANCED PLACEMENT (AP) STUDIO ART (10, 11, 12)

### 1.00 credit

The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year. The AP Studio Art Program consists of three portfolios - 2-D Design, 3-D Design and Drawing - corresponding to the most common college foundation courses.

## AR601 COLLEGE CREDIT PLUS WESTERN ART HISTORY II (MU - HIST1202) (10, 11, 12)

### 3.00 MU hours/RGA 1.0 credit

Historical survey of painting, sculpture, architecture, and the minor arts representative of the main contributions of western civilization. Illustrated lectures and discussions: Renaissance and Modern, to the present.

## AR602 COLLEGE CREDIT PLUS DRAWING FOUNDATIONS $(10,11,12)$

### 3.00 university credit hours/RGA 1.0 credit

A basic foundation of drawing and composing two-dimensional space are investigated. Students will be introduced to the human figure as well as linear perspective. Direct observation and interpreting photographic sources are used to develop the student's image-making.

## AR603 COLLEGE CREDIT PLUS 2D DESIGN $(10,11,12)$

### 3.00 university credit hours/RGA 1.0 credit

The elements and principles of design that form the foundation for composing two-dimensional space are explored. The relationship between form and space is emphasized, as well as design terminology.

## AR604 COLLEGE CREDIT PLUS 3D DESIGN $(10,11,12)$

### 3.00 university credit hours/RGA 1.0 credit

The elements and principles that form the foundation for creating forms in space are explored. The relation between form and three-dimensional space is emphasized as well as design terminology. This course also explores the concept of sustainability and green design.

## AR605 COLLEGE CREDIT PLUS DIGITAL PAGE LAYOUT AND PRINT PUBLISHING $(10,11,12)$ 3.00 university credit hours/RGA 1.0 credit

This course is an introduction to digital page composition using industry standard software (Adobe InDesign). Students will also learn printing technologies for digital prepress (including file, font, and color management), and printing technologies (including letterpress, offset lithography, and screen printing).

## AR606 COLLEGE CREDIT PLUS HISTORY OF GRAPHIC DESIGN $(10,11,12)$ <br> 3.00 university credit hours/RGA 1.0 credit

The history of graphic design from the Victorian era to the present is explored. Emphasis is placed on the relationship between graphic design and culture with regard to the creation of visual communication.

## AR607 COLLEGE CREDIT PLUS COLOR PRINCIPLES (10, 11, 12)

### 3.00 university credit hours/RGA 1.0 credit

Color theory and principles are investigated. The relationship between color, light, and visual perception are emphasized as well as color terminology.

## AR608 COLLEGE CREDIT PLUS SYSTEMS OF DRAWING (MIAD - FYE100) (10, 11, 12)

### 3.00 university credit hours/RGA 1.0 credit

Drawing is a primary strategy for creative activities in art, language, communications, engineering and design. In this course, students are introduced to various forms of knowing through seeing and drawing. Different drawing systems are investigated both in the field and classroom, and are aligned with areas of study of creative practice today. Each drawing system will be explored as both a foundational skill set and a tactical approach to success in later creative endeavors.

## AR608 COLLEGE CREDIT PLUS VISUAL LANGUAGE (MIAD - FYE110) (10, 11, 12)

### 3.00 university credit hours/RGA 1.0 credit

This course is an introduction to composition and color theory. Students will learn and apply the elements and principles of art and design in a variety of assignments through a variety of traditional and digital tools and media. All assignments will focus on how ideation techniques are fundamental to creative problem solving. Students will gain a clear understanding of how 2D elements and compositional theory are employed to create clear and effective visual communication, aid personal expression, and help comprise a personal aesthetic. Students will learn to identify how 2D fundamentals are employed in contemporary, professional, and historical work.


## WORLD LANGUAGES DEPARTMENT

While not a requirement for non-native English speaking students, many four-year colleges and universities require a minimum of two years of sequential world language study at the secondary level as a college admissions requirement. This is the case for many in-state and out-of-state colleges and universities. World Language courses can be used to fulfill the elective requirement.

## WL101 FRENCH 1 (9,10,11,12)

### 1.00 credit

This course is the introduction to the French language and culture with focus on speaking, writing, listening and reading skills. Basic grammar and vocabulary are taught with an emphasis on the ability to communicate simple ideas in real world situations. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, speaking tests, and projects. Classes are conducted primarily in French.

## WL201 FRENCH $2(9,10,11,12)$ <br> 1.00 credit

This course elaborates on the basic grammar taught in French I emphasizing the student's ability to produce original language to further develop acquired skills, and to continue study of civilizations and cultures. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, speaking tests, and projects. Classes are conducted primarily in French. (Prerequisite: 'C'or better in French I)

## WL301 FRENCH 3 (9,10,11,12)

### 1.00 credits

This course will continue with vocabulary building and with the study of complex grammatical structures as they relate to authentic texts. Emphasis is placed on the further improvement of speaking, listening, writing and reading skills. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, and projects. Classes are conducted almost exclusively in French. (Prerequisite: 'C'or better in French 2)

## WL102 MANDARIN 1 (9,10,11,12)

### 1.00 credit

This course is an introduction to the Mandarin Chinese language and culture with focus on speaking and listening skills. Basic grammar and vocabulary are taught with an emphasis on the ability to communicate simple ideas in real world situations. This class will either be conducted through our Distance Learning Program or with a classroom instructor. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, speaking tests, and projects.

## WL202 MANDARIN 2 (9,10,11,12)

### 1.00 credit

This course elaborates on the basic grammar taught in Mandarin 1 emphasizing the student's ability to produce original language, to further develop acquired skills, and to continue to study culture. This course also introduces the reading and writing of Chinese characters. This class will either be conducted through our Distance Learning Program or with a classroom instructor. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, speaking tests, and projects. (Prerequisite: 'C"or better in Mandarin 1)

## WL302 MANDARIN 3 (9,10,11,12)

### 1.00 credit

This course elaborates on the basic grammar taught in Mandarin 2 emphasizing the student's ability to produce original language, to further develop acquired skills in speaking, listening, reading and writing, and to continue to study culture. This class will either be conducted through our Distance Learning Program or with a classroom instructor. Students are assessed on individual performance in the following areas: homework, class participation, quizzes, unit tests, speaking tests, and projects.
(Prerequisite: 'C"or better in Mandarin 2)

## WL103 SPANISH 1 (9,10,11,12)

### 1.00 credits

This course is an introduction to the Spanish language and culture with focus on reading, writing, speaking and listening skills. Basic grammar and vocabulary are taught with an emphasis on the ability to communicate simple ideas in real world situations. Students are assessed on individual performance in the following areas: class participation, quizzes, unit tests, speaking tests, and projects. Students are expected to review their notes each day for homework. Classes are conducted primarily in Spanish.

## WL203 SPANISH 2 (9,10,11,12) <br> 1.00 credit

This course elaborates on the basic grammar taught in Spanish 1 emphasizing the student's ability to produce original language, to further develop acquired skills, and to continue study of civilizations and cultures. Students are assessed on individual performance in the following areas: class participation, quizzes, unit tests, speaking tests, and projects. Students are expected to review their notes each day for homework. Classes are conducted primarily in Spanish. (Prerequisite: 'C"or better in Spanish 1)

## WL303 SPANISH 3 (9,10,11,12)

### 1.00 credit

This course will continue with vocabulary building and the study of complex grammatical structures as they relate to authentic texts. Emphasis is placed on the further improvement of reading, writing, speaking, and listening skills. Students are assessed on individual performance in the following areas: class participation, quizzes, unit tests, speaking tests, and projects. Students are expected to review their notes each day for homework. Classes are conducted almost exclusively in Spanish. (Prerequisite:
'C"or better in Spanish 2, Placement Test)

## WL104 JAPANESE 1 (9,10,11,12)

### 1.00 Credit

Japanese 1 is an introductory class on the language and culture of Japan. In this class the students will learn basic communication skills in Japanese through learning hiragana, katakana, kanji, greeting and phrases, and basic grammar and sentence structure.

## WL105 GERMAN 1 (9,10,11,12)

### 1.00 Credit

Students in German 1 will learn useful phrases, vocabulary, and grammar principles to build their confidence as they speak and listen to their teacher speaking German. While studying beginning language structure, there will be plenty of opportunities to apply cultural themes.

APPENDIX A: COLLEGE PREP STUDENT GRADUATION PLAN


APPENDIX B: HONORS STUDENT GRADUATION PLAN


## APPENDIX C: ADVANCED STUDENT GRADUATION PLAN

| YEAR | COURSE NAME | CREDIT |
| :---: | :---: | :---: |
| Freshman | Literature and Composition I Honors | 1.00 |
|  | Geometry Honors | 1.00 |
|  | Biology Honors | 1.00 |
|  | World Issues | 1.00 |
|  | Drawing I | 0.50 |
|  | Health | 0.50 |
|  | Spanish 1 | 1.00 |
| Sophomore | American Literature Honors | 1.00 |
|  | Algebra II/Trigonometry Honors | 1.00 |
|  | Chemistry Honors | 1.00 |
|  | United States History | 1.00 |
|  | Painting | 0.50 |
|  | Physical Education | 0.50 |
|  | Spanish 2 | 1.00 |
| Junior | AP Language and Literature/CCP Composition I | 1.00 |
|  | AP Calculus AB/CCP Calculus I | 1.00 |
|  | AP Physics C/CCP General Physics I | 1.00 |
|  | AP World History | 1.00 |
|  | CCP Public Speaking | 1.00 |
|  | Financial Literacy | 0.50 |
|  | Marketing | 0.50 |
| Senior | AP Composition and Literature/CCP Composition II | 1.00 |
|  | AP Calculus BC | 1.00 |
|  | AP Chemistry/CCP General Chemistry I | 1.00 |
|  | AP Government, Politics and Economics | 1.00 |
|  | AP Human Geography | 1.00 |
|  | AP Psychology/CCP General Psychology | 1.00 |
| Total |  | 24.00 |

## READY GLOBAL ACADEMY CURRICULUM GUIDE



