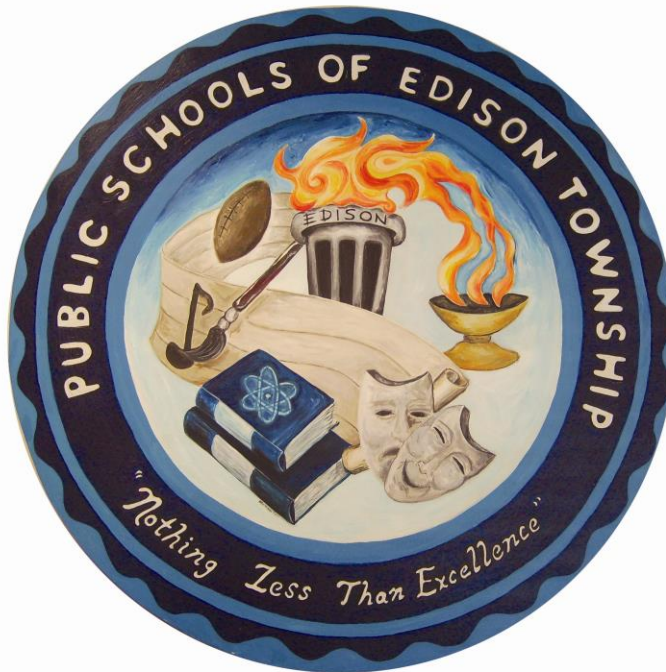


# PROGRAM OF STUDIES

## Grades 9-12



# 2019-20

**Edison High School**  
Charles Ross, Principal



**John P. Stevens High School**  
Gail Pawlikowski, Principal



**PUBLIC SCHOOLS OF EDISON TOWNSHIP**  
**Office of Curriculum and Instruction**  
**312 Pierson Avenue, Edison, NJ 08837**

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***Health/Physical Education***

*Argiris Hristofis*

***Special Education***

**AFFIRMATIVE ACTION/EQUITY**

Students will have equal access to all educational programs and activities without regard to sex, race, creed, national origin, ancestry, nationality, color, gender identity or expression, familial status, affectional or sexual orientation, age, handicap (and/or disability), atypical hereditary cellular or blood trait, genetic information, refusal to submit to genetic tests, refusal to make available results of genetic tests, or any other unlawful category of discrimination.

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# PLANNING YOUR HIGH SCHOOL PROGRAM

Our comprehensive high-school program offers courses designed to meet the academic and career needs of all students. By taking advantage of this curriculum and by selecting the most challenging courses, students will be able to achieve their personal goals while obtaining the preparation to pursue higher education or enter the world of work.

The State of New Jersey and the Edison Township Board of Education have established specific graduation requirements. The Edison Township Board of Education requirement exceeds the minimum course/credit requirement set by the state. Please refer to chart on the following page.

In planning your program, it is important to remember that all courses must be approved by your parent/guardian and school counselor. Additionally, the course selection process must be completed by **June 1**.

**CHANGES IN COURSE SELECTION AFTER JUNE 1 WILL ONLY BE CONSIDERED FOR PLACEMENT CORRECTIONS, BASIC SKILLS CLASS ASSIGNMENTS, OR SUMMER SCHOOL/CREDIT COMPLETION ADJUSTMENTS. THESE CHANGES SHALL BE MADE PRIOR TO THE START OF SCHOOL.**



# GRADUATION REQUIREMENTS



**Attendance:** Students must fulfill all attendance requirements established by the Board of Education.

**New Jersey State Graduation Assessment Requirements** – For the class of 2020, the state requires students to take all PARCC assessments before the alternative test will be accepted. Starting with the Class of 2021 the state requires students to take PARCC ELA 9, 10 and 11, and PARCC Algebra I, Geometry and Algebra II, and must pass ELA10 and Algebra 1. Students who take the PARCC, but do not pass will be required to meet the criteria of the NJDOE Portfolio. At the time of printing, the State of New Jersey is proposing revisions.

**Maximum Subjects Permitted:** Students will be permitted to take a maximum of seven (7) subjects per semester/year. Students enrolled in two (2) lab science courses will be limited to six (6) subjects. **The eighth subject in each student's daily schedule will be a study period.** (Note: All science lab periods will be scheduled during the study period.)

At the discretion of the high school principal, Seniors **MAY** be permitted the option of taking a course in lieu of a study hall depending on his/her overall GPA and the availability of classroom openings. Seniors selecting this option would be permitted to take his/her science lab one day a week during Physical Education/Health period if the schedule allows for it. Seniors taking two lab science courses would be required to take one study hall. This may provide an exception to the six (6) subject limit for seniors who are enrolled in two lab courses.

**Required Courses:** The following courses are required and must be successfully completed before students are awarded their diploma. These requirements exceed the state minimums.

Requirement	Edison Board of Education	New Jersey State Minimum
English	4 Years/20 credits	20
Mathematics	4 Years/20 credits	15
Science (Including 1 year of Biology)	3 Years/17 credits*	15
World History	1 Year/ 5 credits	5
US History	2 Years/10 credits	10
World Language	2 Years/10 credits	5
Physical Education/Health/Driver Education – Grade 10 (required during each year of enrollment)	4 Years/20 Credits	20
21 <sup>st</sup> Century Life	5 credits	5
Visual and Performing Arts	5 credits	5
Economics/Financial Literacy	2.5 credits	2.5
Other Courses	17.5 credits	17.5
<b>Credits</b>	<b>130</b>	<b>120</b>

\*pending policy change approval

## SUCCESSFUL COMPLETION OF REQUIRED COURSES

Required courses that are failed must be made up in summer school or repeated the following school year -- and must be successfully completed before the next course can be taken in that subject area's required sequence. Students who fail to do this jeopardize their chances of graduating with their class. (This applies to English, math, science, and world languages.) **EXCEPTIONS TO THIS PROCEDURE MAY BE CONSIDERED FOR THE SENIOR YEAR ONLY AND MUST BE APPROVED BY THE PRINCIPAL.**

## CLASS TRANSFERS AND WITHDRAWALS

When creating schedules, students are enrolled in courses after serious discussion has been had between the student, parent, teacher and counselor. Students are always encouraged to develop persistence and resilience in honoring their commitments to course selections by attending and satisfactorily completing the courses in which they enroll.

Students may make adjustments to their course requests until **June 1st**. Requests for discretionary schedule changes will not be considered (e.g., teacher, elective courses, physical education, late start and early dismissal). After June 1, changes will only be made when concerns regarding the student's schedule are initiated through the school's administrative team. Parents and students will be involved in this process before any final decisions are made.

### Schedule Changes:

Schedule changes **will be** considered under the following conditions:

- Student has been scheduled for an incorrect class.
- Course level change: Only permitted between the 6th week of class and the end of the first Marking Period.

All changes must adhere to the following:

1. No student will be permitted to drop a course after the class has met for 10 days for a full year course and 5 days for a semester course without the express written permission of the parent, teacher, department supervisor, director of counseling, and the principal or his/her designee.
2. If a student is withdrawn any time up to the 10-day period for a full year and 5-day period for a semester course, the student will be removed from the class roster. No record of this withdrawal will appear on the student's permanent record.
3. If a student is withdrawn from a year or semester course at any time after the 10-day period for a full year and 5-day period for a semester course, the student will be removed from the class roster. A record of Withdraw Pass (WP) or Withdraw Fail (WF) will be maintained throughout the remainder of the year and recorded on the student's permanent transcript.
4. In order to change a student's schedule, a drop/add form must be completed and signed by all involved parties. Refer to additional requirements on the drop/add form for level changes. There must be an open seat in the requested course.
5. In the event that a change in schedule is affected due to course level, the grades previously received will follow the student to the new course. Grades will reflect the weight of the course that the student has transferred into.

## I. WEIGHTED GRADE POINT AVERAGE (GRADES 9-12)

A weighted grade point average will be computed for each student. A quality point value is assigned to each letter grade according to the following chart:

---

<u>LETTER GRADE</u>	<u>HONORS</u>	<u>ACCL.</u>	<u>REGULAR</u>
A+	6.33	5.33	4.33
A	6.00	5.00	4.00
A-	5.67	4.67	3.67
B+	5.33	4.33	3.33
B	5.00	4.00	3.00
B-	4.67	3.67	2.67
C+	4.33	3.33	2.33
C	4.00	3.00	2.00
C-	3.67	2.67	1.67
D	1.00	1.00	1.00
F	0	0	0

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The quality points are multiplied by the number of credits received for each course. The quality points are then totaled and divided by the total number of credits attempted, e.g.:

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<u>GRADE 9</u>	<u>LETTER GRADE</u>	<u>QUALITY POINT VALUE</u>		<u>CREDITS</u>		<u>TOTAL QUALITY POINTS</u>	<u>WEIGHTED GRADE POINT AVERAGE</u>
English I (A)	B	4.00	x	5.00	=	20.00	
French I (A)	A -	4.67	x	5.00	=	23.35	
Geometry (H)	A	6.00	x	5.00	=	30.00	
Biology (A)	B +	4.33	x	5.00	=	21.65	
World History (A)	A	5.00	x	5.00	=	25.00	
Art I (R)	B	3.00	x	5.00	=	15.00	
Physical Education I (R)	A	4.00	x	3.75	=	15.00	
Health (R)	B	3.00	x	<u>1.25</u>	=	<u>3.75</u>	
		Total		35.00		<u>153.75</u> =	4.39
						35.00	

---

The weighted grade point average shall be listed on the student transcript as an aid to colleges, business and technical schools as well as prospective employers.

## II. Unweighted GRADE POINT AVERAGE (GRADES 9-12)

An unweighted grade point average will be computed for each student. The unweighted grade point average is computed by converting grades earned in each course to a numerical equivalent using the following scale: A+ = 4.33, A = 4.0, A- = 3.67, B+ = 3.33, B = 3.0, B- = 2.67, C+ = 2.33, C = 2.0, C- = 1.67, D = 1.0, F = 0. The unweighted grade point average shall be listed on the student transcript as an aid to colleges, business and technical schools as well as prospective employers.

GRADE 9	LETTER GRADE	GRADE POINT VALUE		CREDITS		GRADE POINT TOTAL	GRADE POINT AVERAGE
English I (A)	B	3.00	x	5.00	=	15.00	
French (A)	A-	3.67	x	5.00	=	18.35	
Geometry (H)	A	4.00	x	5.00	=	20.00	
Biology (A)	B+	3.33	x	5.00	=	16.65	
World History (A)	A	4.00	x	5.00	=	20.00	
Art I (R)	B	3.00	x	5.00	=	15.00	
Physical Education I (R)	A	4.00	x	3.75	=	15.00	
Health (R)	B	3.00	x	<u>1.25</u>	=	<u>3.75</u>	
TOTAL				35.00		<u>123.75</u> = 35.00	3.54

## III. CLASS RANK (GRADES 9-12)

According to Board of Education policy, class rank shall not be reported or released except as provided for in the procedures. A weighted and unweighted grade point average shall be reported on the transcript. No information regarding rank in class shall be released or made public except as follows upon request. Such requests shall be made through the Supervisor of Guidance.

1. The National Merit Scholarship Program shall be provided rank in class for those students it identifies as eligible for scholarship consideration.
2. The New Jersey Department of Education shall be provided with a list of students who may be eligible for NJSTARS.
3. The United States military service academies shall be provided rank in class if requested by an academy.
4. Scholarship programs or special college programs to which a student has applied shall be provided rank in class if such data is requested or required for the program.



## COLLEGE PLANNING

Students planning to attend a college/university are encouraged to take a full academic program each year they are in high school (grades 9-12). Recently, colleges have been increasing their academic standards. For instance, upon admission to any New Jersey public college or university, students are required to take a placement test (county colleges, state colleges, Rutgers University, New Jersey Institute of Technology). Also, many private colleges in New Jersey require a placement test. Placement in remedial English and/or mathematics classes is mandatory for all college freshmen who do not demonstrate a satisfactory level of proficiency on placement tests.

Additionally, students planning to attend college should use Naviance, the College Counselors, and other internet services to research college opportunities. They should be enrolled in challenging college preparatory courses in English, math, science and social studies in all grades. Some colleges prefer more than the minimum requirements and some will accept a variety of course patterns. Many competitive colleges and universities **require** a minimum of 16 academic subjects as follows:

English	4 years
Social Studies	3 years
Mathematics	4 years
Science	3 years (4 years preferred)
World Languages	2 years (3 or more preferred)

Students expecting to major in mathematics, science, or world languages are strongly urged to take four years of study in these areas. Because of the high "dropout rate" during the first year of college, the following advice is offered to all college-bound seniors: **It is more important to complete your first year at college than to enjoy your senior year at high school. Thus, your 12th-grade program should be a rigorous academic experience.**

Each year, over one hundred representatives of colleges, universities, county colleges, technical, and other specialized schools visit each of our high schools to explain the offerings of their respective institutions. These conferences provide an excellent opportunity for students to compare one institution with another when making choices. Annually, there are college information programs conducted at each high school and at Middlesex County College. Specific dates are announced through the Counseling Department. Parents and students are encouraged to attend these programs.

The PSAT is administered during mid-October. This test is useful in predicting SAT scores. The PSAT scores of junior students are used to determine National Merit Scholars. Students should use the PSAT scores to help them select one or more SAT preparation options such as challenging math and English courses, intensive afternoon/evening programs, commercial programs, and self-directed materials, among others.

Students planning to take the **SAT** or **ACT** for college entrance should enroll in **advanced mathematics courses (ALGEBRA I/II, GEOMETRY, etc.)**. Past experience has shown that students who are successful with the **SAT** and/or **ACT** are those who have prepared themselves with strong academic subjects. Many colleges require students to take the SAT subject tests in specific academic fields (English Composition, United States History, Biology, etc.). These achievement tests are used by colleges for enrollment and placement in classes.

The SAT or ACT should be taken in the winter of the junior year by students planning to attend a four-year college or university. Students may retake either test during the fall semester of their senior year. Some colleges require students to take either the SAT or ACT again in the senior year even if their previous results were quite good. The SAT subject tests may be taken during May or June of the junior year or during the fall semester of the senior year. The results of these tests are very important in considering one's choice in selecting a college.

### GENERAL INFORMATION

**ADVANCED PLACEMENT** - Courses are offered in certain subject areas for students who have achieved a high level of academic proficiency. Eligibility for enrollment in **ADVANCED PLACEMENT** courses is dependent upon such factors as report card grades, standardized test scores, student interest, motivation, and reading proficiency. Students seeking enrollment in **ADVANCED PLACEMENT** courses must have the recommendation of appropriate staff members. Every student enrolled in an AP course is expected to take the AP exam in May.

**COURSE AUDIT** - Students may have an opportunity to audit a course at the discretion of the principal. No credit is given for an audited course. An audited course is in addition to a student's required course load.

# FOR INFORMATION ABOUT DISTRICT RESOURCES

VISIT OUR WEBSITE  
[HTTP://WWW.EDISON.K12.NJ.US](http://www.edison.k12.nj.us)

follow us on  
**twitter**



**Edison Township Channel 118**

**My Edison APP**

## **ELIGIBILITY REQUIREMENTS**

### **DIVISIONS I AND II INITIAL-ELIGIBILITY REQUIREMENTS**

The interscholastic athletic and co-curricular programs provide opportunities for students to pursue their interests and develop their talents through participation in a variety of activities. The eligibility requirements for participation in these activities are as follows:

**INTERSCHOLASTIC ATHLETICS** - All Board of Education approved athletic activities in grades 9-12 are sanctioned by the New Jersey Interscholastic Athletic Association (NJSIAA)

Eligibility requirements for participation in athletic activities are the same as those adopted by the New Jersey Interscholastic Athletic Association -- with the exception that the Board of Education has adopted the following additional requirements:

1. Students must adhere to Board rules and regulations regarding conduct and attendance.
2. Academic Requirements
  - To be eligible for athletic competition during the first semester (September 1 to January 31) of the 10th grade or higher, students must have passed during the immediately preceding school year, 25% of the credits required by the Edison Board of Education (25% of 130 credits). Transfer students enrolling in the 10th grade or higher must have passed, during the immediately preceding school year, 25% of the credits required for graduation by the Board of Education in the school district from which they transferred.
  - To be eligible for athletic competition during the second semester (February 1 to June 30) of the 9th grade or higher, students must have achieved an academic record during the first semester which represents - on an annual basis - successful completion of 25% of the 130 credits required by the Edison Board of Education. Transfer students enrolling in the 9th grade or higher must have achieved an academic record during the first semester which represents - on an annual basis - successful completion of 25% of the credits required for graduation by the Board of Education in the school district from which they transferred.
  - **Be sure** to look at your high school's list of NCAA Courses on the NCAA Eligibility Center's website ([www.eligibilitycenter.org](http://www.eligibilitycenter.org)). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.

Students who plan to participate in interscholastic sports while in college should go to the NCAA website ([www.ncaa.org/student-athletes](http://www.ncaa.org/student-athletes)) for eligibility requirements.

**CO-CURRICULAR ACTIVITIES** - All Board of Education approved co-curricular activities including, but not limited to, drama, band, choir, cheerleading, band front, student council and class organizations, school newspaper, and clubs

Eligibility requirements for participation in co-curricular activities are the same as those governing eligibility for participation in interscholastic athletics.

**ADDITIONAL INFORMATION REGARDING ELIGIBILITY REQUIREMENTS FOR PARTICIPATION IN INTERSCHOLASTIC ATHLETICS AND CO-CURRICULAR ACTIVITIES MAY BE OBTAINED FROM THE PRINCIPAL, COUNSELORS, ATHLETIC DIRECTOR, COACHES AND ACTIVITY SPONSORS.**

# ENGLISH DEPARTMENT

Listed below are the core courses required to each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Required Core Courses:*</b>	English 1 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul>	English 2 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul>	English 3 <ul style="list-style-type: none"> <li>• AP Language and Composition (Honors)</li> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul>	English 4 <ul style="list-style-type: none"> <li>• AP Literature and Composition (Honors)</li> <li>• AP Language and Composition (Honors)</li> <li>• College Composition &amp; Literature (Honors)</li> <li>• Accelerated</li> <li>• Academic</li> </ul>
<b>Electives:</b>	Creative Writing 1 Creative Writing 2 (Level 1) Theater Arts 1	Creative Writing 1 Creative Writing 2 (Level 1) Public Speaking Speech Arts Theater Arts 1 Theater Arts 2 (Level 1)	American Studies (S) Creative Writing 1 Creative Writing 2 (Level 1) Public Speaking Speech Arts Theater Arts 1 Theater Arts 2 (Level 1) Theater Arts 3 (Honors)	American Studies (S) Creative Writing 1 Creative Writing 2 (Level 1) Public Speaking Speech Arts Theater Arts 1 Theater Arts 2 (Level 1) Theater Arts 3 (Honors) Theater Arts 4 (Honors)

**\*NOTE:** Students will be placed in English based on Grouping Procedures available on the District website or from school counselors.

## COURSE DESCRIPTIONS

### ENGLISH

#### REQUIRED COURSES

Students are required to successfully complete four years of English (1, 2, 3 and 4) for high school graduation. The focus of the English program is the development of the ability in reading and writing/composing, with course content stressing the integrated study of reading/ writing/ speaking/listening and viewing. These courses are offered at three levels of instruction - Academic (level 2), Accelerated (level 1) and Honors (H). English 3 AP Language and Composition (Honors) is a rigorous college-level course and is designed as preparation for the AP Language and Composition Examination. English 4 AP Literature and Composition (Honors) is designed to be a college-level course preparing students for the academically rigorous AP English Literature and Composition Examination. College Composition and Literature is an Honors level course designed to expose students to college-level expository writing and world literature. In addition to the four years of required English, students who do not meet the NJDOE State Graduation Assessment requirements will be placed in PARCC APPEALS to develop the required portfolio.

***Summer reading or summer project (grade 11 into 12) is a requirement for all students in English.***

**ENGLISH 3 - AP LANGUAGE AND COMPOSITION (HONORS)** - This course provides an opportunity to study and to write various kinds of analytical or persuasive essays on non-literary topics. By including non-literary topics with a college-level English option in language, rhetoric, and expository writing, this course prepares students for the academically rigorous AP English Language and Composition Examination. In addition, it will prepare students for effective reading and writing in colleges and universities as well as personal and professional endeavors beyond their academic involvement. Some colleges and universities require students to have passing scores in both AP Language/Composition and AP Literature/Composition to receive college-level credit. Students must be committed to this program if they are to realize success in this highly intensive course. **ENGLISH LANGUAGE AND COMPOSITION AP** fulfills one year of the four-year English requirement. Every student enrolled in **ENGLISH LANGUAGE AND COMPOSITION AP** is expected to take the AP exam in May.

**ENGLISH 4 - AP LITERATURE AND COMPOSITION (HONORS)** - This course engages students in the careful reading and critical analysis of imaginative literature. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. Reading in an AP course is both wide and deep. The approach to the close reading involves these components: the experience of literature, the interpretation of literature, and the evaluation of literature; all three are important in **AP ENGLISH LITERATURE AND COMPOSITION**. Not only will students read actively, they will read carefully and deliberately. Along with the aspects mentioned about reading, writing is an integral part of the AP English Literature and Composition course. Writing assignments focus on the critical analysis of literature and include expository, analytical, and argumentative essays. Writing instruction includes attention to developing and organizing ideas in clear, coherent, and persuasive language. Other aspects such as precision, correctness, and style are equally important. Throughout the course, emphasis is placed on helping students develop stylistic maturity. Every student enrolled in **ENGLISH LITERATURE AND COMPOSITION AP** is expected to take the AP exam in May.

**COLLEGE COMPOSITION AND LITERATURE (HONORS)** - This course is designed to fully immerse students into the expectations and rigor of college writing. Based on the semester Expository Writing 101 course at Rutgers University, this class will engage students in the process of writing multiple drafts of expository essays developing theses that connect and respond to the ideas and information in the texts they read. Students will also read a variety of world literature and poetry thematically linked to the nonfiction. This course has an optional college credit component in which students can submit their cumulative writing portfolio for folder review to the Rutgers Writing Program. Students who meet the Rutgers required grade, can purchase college credit from Rutgers.

**AMERICAN STUDIES (SEMESTER)** - This semester course introduces students to the interdisciplinary field of American Studies. The goal of the course is to contemplate what it means to be an American and prepare students to critically read, think, write and speak about issues of race, ethnicity and gender in the United States. Students will explore these topics across forms: literature, primary documents, case studies, music, film and art. The course will challenge students to consider the multiple identities that comprise America and research the question: What does it mean to be American? *This is an interdisciplinary course also listed with the Social Studies courses.*

**CREATIVE WRITING 1** - This course enables students in grades 9-12 to develop their creative writing skills. The writing process will be emphasized as students compose narratives, poems, journal entries, dramatic scenes and novel excerpts. Throughout the course, students will be taught how to select and limit a topic, select an appropriate mode of expression, and write for a particular audience.

**CREATIVE WRITING 2** - This course will allow students in grades 10-12 to further refine their writing skills. The writing process will be emphasized as students continue to compose narratives, poems, journals, dramatic scenes and novel excerpts. Students will work with their teacher to compose writing for the purpose of publication (*INK Literary Magazine* at JPS or *Echoes Literary Magazine* at EHS). Pre-requisite: Successful completion of Creative Writing 1.

**PUBLIC SPEAKING/SPEECH ARTS** - Effective oral communication is the focus for students learning to speak with poise and intelligence in a variety of situations. Units of study include the basic tools for oral expression, organization of ideas, preparation of speeches, and effective delivery. Various types of speeches, including the impromptu speech, are presented and evaluated.

**THEATER ARTS 1** - This elective course begins with a discussion of "stage fright" and a study of the techniques which can be used to overcome this problem. Pantomime and improvisational group work are then introduced to increase the student's confidence and form the basis for a study of the evolution of the theater, as well as a study of the basic techniques of acting.

**THEATER ARTS 2 (LEVEL 1)** - This course is designed as an advanced course in techniques of acting. In addition to character development, elements such as motivation, concentration, and character and play analysis are stressed. Methods of approach to character creation are reinforced by actual workshop activity in play production. Students will be required to attend one school play and critique it. Prerequisite: **THEATER ARTS 1** or demonstration of equivalent skills and knowledge as verified by teacher recommendation and approval of the English Supervisor and the Principal.

**THEATER ARTS 3 (HONORS)** - This course is the continued study of advanced acting techniques, and how the art of acting is derived from everyday social interaction. Theatrical styles and play writing are offered in this course, and the process of career decision-making is approached by using the advanced students' Theater Arts background. Students will be required to attend one school play and critique it. Prerequisite: Successful completion of **THEATER ARTS 2**.

**THEATER ARTS 4 (HONORS)** - This course is designed for the well-trained and experienced drama student to continue development of skills related to the theater. The course will operate simultaneously with Theater Arts III, but will permit greater independent work in acting, directing and writing. Students will be required to attend one school play and critique it. Prerequisite: Successful completion of **THEATER ARTS 3**.

# MATHEMATICS DEPARTMENT

Listed below are the core courses required at each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Core Courses:*</b>	Algebra 1  Geometry <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Algebra 2 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Pre-Algebra RC	Geometry <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Algebra 2 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Pre-Calculus <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Algebra 1 RC	Algebra 2 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> Pre-Calculus <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> AP Calculus BC <ul style="list-style-type: none"> <li>• Honors</li> </ul> AP Calculus AB <ul style="list-style-type: none"> <li>• Honors</li> </ul> Calculus 1 <ul style="list-style-type: none"> <li>• Accelerated</li> </ul> Integrated Math A <ul style="list-style-type: none"> <li>• Academic</li> </ul> Integrated Math B <ul style="list-style-type: none"> <li>• Academic</li> </ul> Geometry RC	Pre-Calculus <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated</li> <li>• Academic</li> </ul> AP Calculus BC <ul style="list-style-type: none"> <li>• Honors</li> </ul> AP Calculus AB <ul style="list-style-type: none"> <li>• Honors</li> </ul> Calculus 1 <ul style="list-style-type: none"> <li>• Accelerated</li> </ul> Applied Calculus <ul style="list-style-type: none"> <li>• Honors</li> </ul> AP Statistics <ul style="list-style-type: none"> <li>• Honors</li> </ul> Statistics <ul style="list-style-type: none"> <li>• Accelerated</li> <li>• Academic</li> </ul> Integrated Math A <ul style="list-style-type: none"> <li>• Academic</li> </ul> Integrated Math B <ul style="list-style-type: none"> <li>• Academic</li> </ul> Algebra 2 RC

# **MATHEMATICS DEPARTMENT (cont.)**

Listed below are the core courses required at each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Electives:</b>	Computer Science	Programming (Accelerated)	Programming (Accelerated)  AP Computer Science Principles <ul style="list-style-type: none"> <li>Honors</li> </ul> AP Computer Science A <ul style="list-style-type: none"> <li>Honors</li> </ul>	Applied Calculus <ul style="list-style-type: none"> <li>Honors</li> </ul> AP Statistics <ul style="list-style-type: none"> <li>Honors</li> </ul> Statistics <ul style="list-style-type: none"> <li>Accelerated</li> <li>Academic</li> </ul> Programming (Accelerated)  AP Computer Science Principles <ul style="list-style-type: none"> <li>Honors</li> </ul> AP Computer Science A <ul style="list-style-type: none"> <li>Honors</li> </ul>

**\*NOTE:** Students will be placed in mathematics based on the district Grouping Procedures available on the District website or from their school counselors. All prerequisites must be met.

Four years of mathematics is required. Students must complete a sequence of Algebra 1, Geometry then Algebra 2, followed by additional courses. Students who take Algebra 1 and/or Geometry in Edison's middle schools must still take four years of mathematics in high school.



## MATHEMATICS

**Students should refer to page 2 to determine math requirements for graduation.**

**PRE-ALGEBRA (RC)** - This course creates a skill and problem solving foundation. It is aligned with the New Jersey Student Learning Standards, will review, and extend content in preparation for **ALGEBRA 1**.

**ALGEBRA 1 (ACADEMIC)** - This course is the bridge from the concrete to the abstract study of mathematics. It is aligned with the New Jersey Student Learning Standards, will review, and extend the content of **PRE-ALGEBRA**. The successful completion of Algebra I is required for graduation.

**GEOMETRY (HONORS, ACCELERATED, ACADEMIC)** - This course is designed for the student who has successfully completed **ALGEBRA 1**. It is aligned with the New Jersey Student Learning Standards, will develop both inductive and deductive reasoning skills, and investigate geometric applications to algebraic concepts. The successful completion of Geometry is required for graduation.

**ALGEBRA 2 (HONORS, ACCELERATED, ACADEMIC)** - This course has been prepared for the student who has successfully completed **GEOMETRY**. It is aligned with the New Jersey Student Learning Standards, will review, and extend the content of **ALGEBRA 1**.

**INTEGRATED MATH A (ACADEMIC)** - This course has been designed for the student who has completed the Algebra 1, Geometry, Algebra 2 sequence. It is an integrated mathematical approach of the three courses into a seamless progression. Students will reinforce foundational mathematical skills as a three part spiral of previous math courses.

**INTEGRATED MATH B (ACADEMIC)** - This course has been designed as a continuation of **INTEGRATED MATH A**. Students who have completed **ALGEBRA 2** with specific prerequisites, are eligible to enroll in this course as an alternative to **PRE-CALCULUS** or **STATISTICS**.

**PRE-CALCULUS (HONORS, ACCELERATED, ACADEMIC)** - This course is designed for the student who has successfully completed **ALGEBRA 2**. This course will study the behavior of the six trigonometric functions and advanced algebra concepts. Pre-requisites must be met.

**CALCULUS 1 (ACCELERATED)** - This course is designed to prepare the student with a strong math background for a first-year college course in calculus. This is a less demanding course than **CALCULUS-AP (AB)** because some of the more advanced topics are not covered. Instead, additional review and emphasis are placed on topics from **PRE-CALCULUS**. The formal study of pre-calculus is a prerequisite **and** departmental approval is required from **PRE-CALCULUS (ACADEMIC)**.

**CALCULUS - AP (AB) (HONORS)** - This is a college level course which prepares the student for the Advanced Placement Examination in **AP CALCULUS AB**. The content of this course focuses on both differential and integral calculus. **PRE-CALCULUS (HONORS)**, or **PRE-CALCULUS (ACCELERATED)** with pre-requisites, **and** departmental approval is a requirement. Every student enrolled in **CALCULUS-AP (AB)** is expected to take the AP Calculus exam in May.

**CALCULUS - AP (BC) (HONORS)** – This is a college level course which prepares the student for the Advanced Placement Examination in **AP CALCULUS BC**. **PRE-CALCULUS (HONORS)** **and** departmental approval is a prerequisite. Every student enrolled in **CALCULUS-AP (BC)** is expected to take the AP Calculus exam in May.

**APPLIED CALCULUS (HONORS)** - Designed for students who have successfully completed **CALCULUS-AP (BC)**, or **CALCULUS-AP (AB)** with pre-requisites, **and** departmental approval. This course will cover multivariable calculus and will provide students with the equivalent of a third semester of college calculus.

**STATISTICS - AP (Honors)** - This college level course prepares students for the Advanced Placement Examination in **AP STATISTICS**. The content of the course includes exploring data, planning statistical study, investigating patterns, and statistical inference. Departmental approval is required. Every student enrolled in **STATISTICS - AP** is expected to take the AP Statistics exam in May.

**STATISTICS (ACADEMIC, ACCELERATED)** - This course has been designed to prepare the student with a strong statistical background for a first-year college course in statistics. This is a less demanding course than **STATISTICS - AP** because some of the more advanced topics are not covered.

**COMPUTER SCIENCE (ACADEMIC)** - This is an introductory programming course for the student who is interested in a career involving mathematics or computer science. This course will provide a variety of programming experiences.

**PROGRAMMING (ACCELERATED)** - This full year course is designed for the student who is interested in learning to program using the Java computer language. Skills and concepts from the introductory course will be extended to a new computer language. Successful completion of Computer Science is a pre-requisite **and** departmental approval.

**COMPUTER SCIENCE PRINCIPLES - AP (HONORS)** – This college level course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Successful completion of Programming, with pre-requisites **and** departmental approval, is required. Every student enrolled in **COMPUTER SCIENCE PRINCIPLES - AP** is expected to take the **COMPUTER SCIENCE PRINCIPLES - AP** exam in May.

**COMPUTER SCIENCE A - AP (HONORS)** - This college level course prepares students for the Advanced Placement Examination in Computer Science. The content of this course focuses on computer programming using the Java programming language. Successful completion of **PROGRAMMING** with prerequisites **and** departmental approval. Every student enrolled in **COMPUTER SCIENCE AP** is expected to take the AP Computer Science exam in May.

# PHYSICAL EDUCATION/HEALTH/DRIVER EDUCATION - DEPARTMENT

Listed below are the core courses required to each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Required Core Courses:</b>	Health Physical Education	Driver Education Theory Physical Education	Health Physical Education	Health Physical Education
<b>Electives:</b>	First Aid, Fitness & Nutrition (S)	First Aid, Fitness & Nutrition (S)	First Aid, Fitness & Nutrition (S) Human Sexuality (S)	First Aid, Fitness & Nutrition (S) Human Sexuality (S)

## **HEALTH – DRIVER EDUCATION – PHYSICAL EDUCATION**

**HEALTH** - This required course is scheduled for one quarter in grades 9, 11, and 12. Health includes the study of human growth and development as well as the study of substance abuse, nutrition, mental health, interpersonal relationships, responsible personal behavior, and the family.

**DRIVER EDUCATION THEORY** - This quarter course is required of all grade 10 students. Instruction focuses on various aspects of driving including safety, the automobile, laws, liability, insurance, defensive driving techniques and substance abuse as it pertains to motor vehicle operation. Upon completion of THEORY, students will be prepared for simulation and behind-the-wheel instruction.

**PHYSICAL EDUCATION** - This **required** course is scheduled for three quarters in grades 9, 10, 11, and 12. Emphasis is placed on physical fitness and the development of skills related to team and individual sport activities.

**FIRST AID, FITNESS AND NUTRITION** - This is a semester elective course in which interested students are provided an opportunity to study first aid, fitness and nutrition in greater depth than is possible in the required health education program. Opportunity to acquire CPR certification will be provided in addition to an understanding of the need for physical fitness and the important role nutrition plays in fitness and wellness.

**HUMAN SEXUALITY**- This is a semester-elective course with a focus on critical analysis of the various types of sexual behavior, sexual problems, and the prevailing attitudes and customs regarding sex. Throughout the course, provision will be made for class discussion and for communication among students, teachers, and appropriate consultants. The objectives of this course are as follows: (1) to acquire knowledge regarding the biological aspects of sex, (2) to discuss, with dignity and intelligence and without embarrassment, the various aspects of sexual maturation and behavior, (3) to develop insight and understanding of the more prevalent attitudes, customs and mores regarding sex, (4) to recognize that knowledge regarding sex is not an end in itself, but is incomplete unless qualified by an individual's moral and spiritual values, and (5) students will identify, using proper terminology, various sexual reproductive anatomy and physiology of the human anatomy related to biological sex differences and similarities of the male and female.

### **Option II for an Alternative Physical Education**

Option II provides students with the opportunity to meet the New Jersey Student Learning Standards in a setting other than the traditional classroom. Participation in a competitive, elite level outside program such as swimming, can be used as an alternative to a daily physical education class. In order to receive approval and credit for Physical Education under Option II:

- The program must satisfy the New Jersey Student Learning Standards (NJSLS) for Health and Physical Education. The NJSLS may be found on the NJ Department of Education website at: [www.state.nj.us/education/](http://www.state.nj.us/education/)
- The program must be taught/organized by a qualified professional/person.
- The program must be a full year and satisfy NJ State Statute 18A: 35-5, 7 and 8 which requires 150 minutes of participation in physical education weekly.
- The student will not be exempt from Driver's Education or Health.
- The student must complete the P.E. Option Two Request Form and return the form to the Physical Education Supervisor by **June 7<sup>th</sup>**.
- Students receiving approval for Option II PE will be placed in STUDY HALL for three marking periods and Health for the remaining quarter.
- The student must be consistently monitored throughout the program by a school district employee.

# SCIENCE DEPARTMENT

Listed below are the core courses required to each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Core Courses:*</b>	Biology (Honors) Biology 1-1 (Accelerated) Biology 1-2 (Academic)	Biology (Honors) Biology 1-1 (Accelerated) Biology 1-2 (Academic)  Chemistry (Honors) Chemistry 1-1 (Accelerated)	Chemistry (Honors) Chemistry 1-1 (Accelerated) Chemistry 1-2 (Academic)  AP Physics 1 (Honors) Physics (Honors) Physics 1-1 (Accelerated)	Science is <b><u>strongly recommended</u></b> , but not required
<b>Electives:</b>			AP Chemistry (Honors) * AP Biology (Honors) *  AP Environmental (Honors)* Forensics (S) (Academic)  Anatomy and Physiology Level 1 (Accelerated)	AP Biology (Honors) AP Chemistry (Honors) AP Environmental (Honors) Physics (Honors) Physics 1-1 (Accelerated) Physics 1-2 (Academic) AP Physics 1 (Honors) AP Physics 2 (Honors) AP Physics C (Honors)  Forensics (S) (Academic) Anatomy and Physiology Level 1 (Accelerated)

**\*NOTE:** Students will be placed in Science based on Grouping Procedures available on the District website or from school counselors. All prerequisites must be met.

\*Priority is given to qualifying seniors and only open to Juniors if space allows.

## SCIENCE

Students should refer to page 2 to determine science requirements for graduation. Applications for AP Science courses must be submitted to the science supervisor by April 12<sup>th</sup> of the current school year. Course Placement is determined by district Grouping Procedures which are available on the school website.

**IMPORTANT REMINDER** - The recommended science curriculum for college-bound students includes **BIOLOGY**, **CHEMISTRY**, and **PHYSICS**. Students who are considering a science career or science-related career are urged to take this sequence.

**BIOLOGY 1-2 – (ACADEMIC)** - This course will focus on the interrelationships of living things to their environment, structure and functions of cells, genetics and the different kinds of life. Laboratory investigations are an integral part of this program, as is an emphasis on the practical applications of biological concepts. Refer to Grouping Procedures for course prerequisites.

**BIOLOGY 1-1 (ACCELERATED)** - This program investigates plant and animal cell structure and functions; the relationships of cells to tissue, organs, organ systems, and organisms; the similarities and differences among living things; and the interrelationships among humans, the lower organisms, genetics, and the environment. Laboratory investigations are an integral part of this course. Refer to Grouping Procedures for course prerequisites.

**BIOLOGY (HONORS)** - This course is designed for students who are seeking a more rigorous exploration of the essentials of life science. The course includes a thorough study of biochemistry, cytology, and microbes. Ecological interactions are also discussed. Laboratory investigations are an integral part of the course and admission requires departmental approval. Refer to Grouping Procedures for course prerequisites.

**AP BIOLOGY (HONORS)** - This college level course involves a rigorous treatment of biology as outlined by the College Entrance Examination Board. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes - energy and communication, genetics, information transfer, ecology, and interactions.

**AP BIOLOGY** is designed for students pursuing a career in the biological sciences. Admission to the course requires an AP application and departmental approval. Refer to Grouping Procedures for course prerequisites. Every students enrolled in **AP BIOLOGY** is expected to take the AP Exam in May. Priority will be given to seniors.

**CHEMISTRY 1-2 (ACADEMIC)** - This is a laboratory based course designed to provide students with opportunity to learn, develop, and use important chemistry concepts and skills through the approach of inquiry and problem solving. The students will examine the study of matter and its changes by understanding the chemistry that is involved in environmental studies, foods, fuels, synthetic fabrics and medicines. Each unit of this course introduces the students to a chemistry-related concern related to their lives and community. The students will apply their chemistry knowledge and skills in investigations designed to model those authentic societal issues. Refer to Grouping Procedures for course prerequisites.

**CHEMISTRY 1-1 (ACCELERATED)** - This laboratory based course embraces student investigations of the state of matter and kinetic theory, atomic structure and bonding. It also includes examination of the periodic characteristics of the elements, solutions, acids, bases, salts, organic compounds, oxidation-reduction reactions, chemical equilibrium, and ionization. A strong mathematical foundation is required. Refer to Grouping Procedures for course prerequisites.

**CHEMISTRY (HONORS)** - This is a course designed for students who are seeking a more rigorous exploration of the subject matter. Course content includes a study of the structure and state of matter, chemical symbols and formulas, types and rates of reactions, the periodic table, molecular structure and bonding, kinetic theory, gas laws, solutions, acids and bases, and electrochemistry. Extensive problem solving and laboratory investigations are an integral part of the course. Admission requires departmental approval. Refer to Grouping Procedures for course prerequisites.

**AP CHEMISTRY (HONORS)** - This college level course involves a rigorous treatment of chemistry as outlined by the College Entrance Examination Board. Extensive student investigations encompass chemistry concepts such as atomic and molecular structure, chemical reactions (including oxidation - reduction and equilibrium reactions), stoichiometry, thermodynamics and an introduction to organic chemistry. Extensive laboratory work is an integral part of this course. **AP CHEMISTRY** is designed for students pursuing a career in the sciences. Laboratory exercises and problem-solving activities will be employed. Experimental data will be processed using modern computer techniques whenever appropriate. Admission to the course requires an AP application and departmental approval. Refer to Grouping Procedures for course prerequisites. Every student enrolled in **AP CHEMISTRY** is expected to take the AP exam in May.

**AP ENVIRONMENTAL (HONORS)** - This course is a full-year college level course that will cover topics including but not limited to; evolution and ecology, population studies, biochemical cycling, ecosystem energetics, and ecological conservation. This rigorous course of study will prepare students to be informed members of an environmentally conscious society and make decisions that will improve the sustainability of our species by combining classwork with field-work for an authentic learning experience. Admission to the course requires an AP application and departmental approval. Refer to the Grouping Procedures for course prerequisites. Every student enrolled in **AP ENVIRONMENTAL** is expected to take the AP Exam in May.

**PHYSICS 1-2 (ACADEMIC)** - This is a laboratory based course designed to provide students with opportunity to learn, develop, and use important physics concepts and skills through the approach of inquiry and problem solving. This course engages students through real-world challenges and projects that require physics knowledge coupled with student creativity. The students will be introduced to the physics concepts in a non-mathematical approach. It is believed that with a strong conceptual foundation in physics, students are better equipped to understand the equations and formulas of physics, and to make connections between the concepts of physics and their everyday world. Refer to Grouping Procedures for course prerequisites.

**PHYSICS 1-1 (ACCELERATED)** - This is a laboratory based course for those students seeking to complete a comprehensive college preparatory science program. Topics include force and motion, gravitation, momentum and energy, waves and radiant energy, optics, electricity, magnetism, nuclear and modern physics. Throughout the course, the role of mathematics in science is discussed and applied in problem solving and laboratory investigations, and therefore, concurrent enrollment in a fourth year of mathematics is suggested. Refer to Grouping Procedures for course prerequisites.

**PHYSICS (HONORS)** - This is a college preparatory course involving a rigorous treatment of classical and modern physics. This course is based upon an intensive study of force and motion, Newton's laws, wave motion, radiant energy, electricity and magnetism, the nature and behavior of light, relativity, and quantum physics. Mathematics is used extensively in problem solving and laboratory investigations using state-of-the-art computer technology. Physics Honors is designed for students pursuing a career in science, particularly the physical sciences. Refer to the Grouping Procedures for course prerequisites.

**AP PHYSICS 1 (HONORS)** - The college level course involves a rigorous exploration of Physics as outlined by the College Entrance Examination Board. Extensive student investigations encompass concepts in Newtonian Mechanics, Work, Energy, Power, Mechanical Waves and Sound and it also introduces electrical circuits. Extensive laboratory work is an integral part of this course. **AP PHYSICS 1** is designed for student pursuing a career in the sciences. Laboratory exercises and problem solving activities will be employed. Experimental data will be processed using modern computer techniques whenever appropriate. Admission to the course requires an AP application and departmental approval. Refer to the Grouping Procedures for course prerequisites. Every student enrolled in **AP PHYSICS 1** is expected to take the AP Exam in May.

**AP PHYSICS 2 (HONORS)** - The college level course involves a rigorous exploration of Physics as outlined by the College Entrance Examination Board. Extensive student investigations encompass concepts in Fluid Mechanics, Thermodynamics, Electricity and Magnetism, Optics, Atomic and Nuclear Physics. Extensive laboratory work is an integral part of this course. **AP PHYSICS 2** is designed for students pursuing a career in the sciences. Laboratory exercises and problem solving activities will be employed. Experimental data will be processed using modern computer techniques whenever appropriate. Admission to the course requires an AP application and department approval. Refer to the Grouping Procedures for course prerequisites. Every student enrolled in **AP PHYSICS 2** is expected to take the AP Exam in May.

**AP PHYSICS C (HONORS)** - The college level, calculus based course involves rigorous exploration of Physics as outlined by the College Entrance Examination Board. It is especially appropriate for students planning to specialize or major in physical science or engineering. The Mechanics portion of the course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. The Electricity and Magnetism portion of the course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course. Admission to the course requires an AP application and department approval. Refer to Grouping Procedures for course pre-requisites. Every student enrolled in **AP PHYSICS C** is expected to take the AP Exam in May.

**FORENSICS EXPLORATIONS (SEMESTER) (ACADEMIC LEVEL 2)** - Forensic science is a semester introductory level course in the application of basic biological, chemical and physical science principles and technological practices in the study of criminal and civil issues. Major themes of study in this course are pathology, anthropology, trace evidence, biological fluids, DNA, fingerprints and forensic psychiatry/psychology. The class is student and inquiry centered with a primary focus on laboratory investigations and writing. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes. Students will learn the history, legal aspects, and career options for forensic science. Refer to Grouping Procedures for course prerequisites. This is an elective science course and does not fulfill a high school science graduation course requirement.

**ANATOMY AND PHYSIOLOGY (ACCELERATED LEVEL 1)** - Anatomy and Physiology is a rigorous hands-on science course focusing on the structure and function of the human body. Students will learn the names of the various parts of the body systems (anatomy) as well as their functions (physiology). This course will use animal dissection and clay mannequins as a means to understand and learn the necessary components of the body. A survey of each organ system is presented with initial emphasis upon its anatomy, followed by an in-depth study of its physiology. This course is lab-oriented and teaches proper dissection techniques as well as various physiological phenomena. This course is recommended for students pursuing an education in the medical or allied health sciences. This is an elective science course and does not fulfill a high school science graduation course requirement. Refer to Grouping Procedures for course prerequisites.



# SOCIAL STUDIES DEPARTMENT

Listed below are the core courses required to each grade level as well as the elective courses available at each grade level.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Required Core Courses:*</b>	U.S. History 1 <ul style="list-style-type: none"> <li>• Honors</li> <li>• Accelerated (Level 1)</li> <li>• Academic (Level 2)</li> </ul>	U.S. History 2 <ul style="list-style-type: none"> <li>• AP (Honors)</li> <li>• Accelerated (Level 1)</li> <li>• Academic (Level 2)</li> </ul>	World History <ul style="list-style-type: none"> <li>• AP (Honors)</li> <li>• Accelerated (Level 1)</li> <li>• Academic (Level 2)</li> </ul>	Social Studies is <b><u>strongly recommended</u></b> , but not required
<b>Electives:</b>		Sociology (S)	Sociology (S) Psychology/Topics in Human Behavior (S) Civics and Justice (S) American Studies (S)	European History AP (Honors) American Government AP (Honors) Sociology (S) Psychology/Topics in Human Behavior (S) Civics and Justice (S) American Studies (S)

**\*NOTE:** Students will be placed in Social Studies based on Grouping Procedures available on the District website or from school counselors. All prerequisites must be met.

## SOCIAL STUDIES

**UNITED STATES HISTORY 1** - The United States History 1 course moves chronologically from a review of the Colonial Era to an examination of the country on the eve of World War I. As students move through centuries of history, a focus on broad themes will steer the coverage of the names, dates, and events that appear throughout the curriculum content. The course will also hone the essential researching, reading, writing, and presentation skills that reside at the heart of the social studies discipline.

**UNITED STATES HISTORY 2** - The United States History 2 picks up where the United States History 1 course ends, moving from an examination of World War I to a consideration of issues facing the United States today. As students move through a century of history, a focus on broad themes will steer the coverage of the names, dates, and events that appear throughout the curriculum content. The course will also hone the essential researching, reading, writing, and presentation skills that reside at the heart of the social studies discipline

**UNITED STATES HISTORY 2 - AP (HONORS)** - This course, taught on a first-year college level, is offered to prepare participants for the Advanced Placement examination in American History. The program is designed to provide extensive and demanding challenges to the student, places a high premium on individual initiative and achievement, and is aligned with the expectations of the College Board. Enrollment is determined by district placement criteria. Activities include a wide variety of reading and writing assignments related to the period from colonization to the present. (Summer assignments are part of this course.) Every student enrolled in **U.S. HISTORY AP** is expected to take the AP exam in May.

**WORLD HISTORY** - This course presents a survey of human history from the Renaissance to the modern era. Major social studies concepts are explored as they relate to the evolution of both Eastern and Western civilizations. The course will also hone the essential researching, reading, writing, and presentation skills that reside at the heart of the social studies discipline

**WORLD HISTORY - AP (HONORS)** - This course is offered to prepare participants for the Advanced Placement Examination in World History. The program is designed to provide extensive and demanding challenges for the student. It, therefore, places a high premium on individual initiative and achievement. The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, sets the human stage. Periodization, explicitly discussed, forms an organizing principle for dealing with change and continuity throughout the course. Specific themes provide further organization to the course, along with the consistent attention to contacts among societies that form the core of world history as a field of study. Enrollment is determined by district placement criteria. Every student enrolled in **WORLD HISTORY - AP** is expected to take the AP exam in May.

**EUROPEAN HISTORY - AP (HONORS)** - This course, open to seniors only and taught on a first-year college level, is offered to prepare participants for the Advanced Placement Examination in European History. The program is designed to provide extensive and demanding challenges for the student. Activities include a wide variety of reading and writing assignments related to the period from the Late Middle Ages to the present. Enrollment is determined by district placement criteria. Every student enrolled in **EUROPEAN HISTORY AP** is expected to take the AP exam in May.

**AMERICAN GOVERNMENT - AP (HONORS)** - This full term course, offered to seniors only and taught on a first-year college level, provides a detailed study of American politics, institutions and processes. The course follows a curriculum outlined by the College Board. Key topics include public opinion, political parties, voting, interest groups, Congress, the Presidency and important Supreme Court cases. Enrollment is determined by district placement criteria. Every student enrolled in **AMERICAN GOVERNMENT AP** is expected to take the AP exam in May.

**SOCIOLOGY (SEMESTER)** - This course is intended to provide an introduction to Sociology. Academic concepts, definitions of terms, and the principles of social science inquiry will be given consideration along with an analysis of basic sociological themes such as social order and conflict, the socialization process, culture, class and power, social pathology, roles and status, the family, and minority groups. Enrollment is open to 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students.

**PSYCHOLOGY/TOPICS IN HUMAN BEHAVIOR (SEMESTER)** - In this course, students are introduced to the study of human behavior. Areas included are: the nature of psychological study, learning, human development, personality theory and development, and mental health. Enrollment is open to 11<sup>th</sup>, and 12<sup>th</sup> grade students.

**CIVICS AND JUSTICE (SEMESTER)** - This course will examine the various levels of government in the United States, the role of law in a free society, and also probe contemporary national and world issues with an emphasis on citizen responsibilities. Enrollment is open to 11<sup>th</sup>, and 12<sup>th</sup> grade students.

**AMERICAN STUDIES (SEMESTER)** - This semester course introduces students to the interdisciplinary field of American Studies. The goal of the course is to contemplate what it means to be an American and prepare students to critically read, think, write and speak about issues of race, ethnicity and gender in the United States. Students will explore these topics across forms: literature, primary documents, case studies, music, film and art. The course will challenge students to consider the multiple identities that comprise America and research the question: What does it mean to be American? *This is an interdisciplinary course also listed with the English Department courses.*

# WORLD LANGUAGE DEPARTMENT

Listed below are the core courses required to each grade level as well as the elective courses available at each grade level. Two years (10 credits) of world language are required for graduation. A minimum of three years are recommended.

Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<b>Core Courses:</b>	French 1 French 2 (Honors) Spanish 1, 2, 3 Spanish 3 (Honors) Latin 1 Mandarin 1 Italian 1	French 1, 2 French 3 (Honors) Spanish 1, 2, 3, 4 Spanish 4 (Honors) Latin 1, 2 Mandarin 1, 2 Mandarin 2 (Honors) Italian 1, 2 Italian 2 (Honors)	French 1, 2, 3, 4 French 4 (Honors) Spanish 1, 2, 3, 4, 5 Spanish 5 (Honors) Latin 1, 2, 3 Mandarin 1, 2, Mandarin 3 (Honors) Italian 1, 2 Italian 3 (Honors)	French 1, 2, 3, 4, 5 French 4 (Honors) French AP (Honors) Spanish 1, 2, 3, 4, 5, 6 Spanish 5 (Honors) Spanish AP (Honors) Latin 1, 2, 3, 4 Mandarin 1, 2, 3, 4 Mandarin 4 (Honors) AP Mandarin Italian 1, 2, 3, 4 Italian 4 (Honors)

## WORLD LANGUAGES

**HONORS PROGRAM** - The five-year sequence for French and Spanish begins in grade 8 and continues through grade 12. It is a fully articulated program and is designed to develop the skills of communication and to provide an in-depth view of another culture and civilization. (**Note:** Only courses taken in grades 9-12 are used to compute the GPA.)

**WORLD LANGUAGE 9<sup>TH</sup> GRADE (HONORS) (FRENCH 2, SPANISH 3)** - This course is designed for students who have successfully completed the 8th-grade everyday language program. Emphasis is on the progressive development of communication skills. Supplementary reading and study of the foreign culture are included in the program.

**WORLD LANGUAGE 10<sup>TH</sup> GRADE (HONORS) (FRENCH 3, SPANISH 4, LATIN 2, MANDARIN 2, ITALIAN 2)** - This course is sequential to **WORLD LANGUAGE 9<sup>th</sup>** grade honors and aims to develop further the basic skills: to understand, speak, read, and write the foreign language with greater facility and accuracy. Supplementary reading and discussions in the language on various aspects of culture are included in the program.

**WORLD LANGUAGE 11<sup>TH</sup> GRADE (HONORS) (FRENCH 4, SPANISH 5, LATIN 3, MANDARIN 3, ITALIAN 3)** - This course, intended for students who completed **WORLD LANGUAGE 10<sup>th</sup>** grade honors, consists of a variety of learning activities designed to apply and to refine the communication skills previously acquired. Although reading is a vital component of the program, the course also provides a review of major structural concepts, conversational practice, a study of various aspects of the foreign culture, an introduction to literature, and optional units of interest to students.

**WORLD LANGUAGE AP (HONORS) (FRENCH, SPANISH, MANDARIN)** - Through the Advanced Placement courses, highly motivated and able students may pursue college-level language study while in high school. Participating colleges award successful students advanced standing and/or college credit. Every student enrolled in AP (French Language, Chinese Language, or Spanish Language) is expected to take the AP exam in May.

**WORLD LANGUAGE (HONORS) (LATIN 4, MANDARIN 4, ITALIAN 4)** - These courses focus on reinforcing the students' ability to communicate and express their ideas, feelings and opinions both orally and in writing. Oral reports on literary and cultural topics as well as personal experiences will be presented. Readings will focus on essays, short stories, poetry, and newspaper and magazine articles with writing and speaking activities generating from the readings.

**WORLD LANGUAGE 12<sup>TH</sup> GRADE ACCELERATED (FRENCH 5, SPANISH 6)** - Students who do not enroll in the Advanced Placement course may elect this course which focuses on reinforcing the students' ability to communicate and express their ideas, feelings and opinions both orally and in writing. Oral reports on literary and cultural topics as well as personal experiences will be presented. Readings will focus on essays, short stories, poetry, and newspaper and magazine articles with writing and speaking activities generating from the reading.

**FOUR-YEAR PROGRAM:** The four-year sequence begins in grade 9 and continues through grade 12. Continuity of instruction throughout the program provides the opportunity to develop skills in language communication and to acquire an awareness and appreciation of another culture and civilization.

**WORLD LANGUAGE 1-1 (FRENCH, LATIN, SPANISH, ITALIAN, MANDARIN)** - This course introduces students to the sound system, structures, and vocabulary of the world language. Emphasis is on the acquisition of fundamental communication skills. Students develop sensitivity to the culture patterns of another society through the study of its language.

**WORLD LANGUAGE 2-1 (FRENCH, LATIN, SPANISH, ITALIAN, MANDARIN)** - The second-year course is committed to the progressive development of communication skills. Supplementary reading focuses on contemporary life and culture.

**WORLD LANGUAGE 3-1 (FRENCH, LATIN, SPANISH, ITALIAN, MANDARIN)** - In the third-year course, students further develop the basic skills and are able to understand, speak, read, and write the language with greater facility and accuracy. Supplementary reading and discussions in the language on various aspects of culture are included in the program.

**WORLD LANGUAGE 4-1 (FRENCH, LATIN, SPANISH, ITALIAN, MANDARIN)** - This course consists of a variety of learning activities designed to apply and to refine the communication skills previously acquired. Although reading is a vital component of the program, the course also provides a review of major structural concepts, conversational practice, a study of various aspects of the foreign culture, an introduction to literature, and optional units of interest to students.

**ENGLISH AS A SECOND LANGUAGE** - A high intensity ESL program is provided to our English Language Learners (ELL's). A student is placed in one of five (5) levels of ESL, depending upon the score achieved on a New Jersey state-approved test for English proficiency. A student previously placed in one of our ESL courses, either at the high school level or the middle school level, will continue that placement until he/she demonstrates fluency on a New Jersey state-approved test for English proficiency and is recommended to exit by the ESL teacher. The ESL course is taken in lieu of the regular English course and credit toward graduation is awarded upon successful completion of the course at the end of the school year. The second period of the double period ESL course may count as credit toward World Languages. All ELL's are subject to all other graduation requirements.

# 21st CENTURY LIFE AND CAREER, BUSINESS, AND TECHNOLOGY DEPARTMENTS

## FAMILY AND CONSUMER SCIENCES

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Foundations of Food and Nutrition Fashion, Textiles, and Apparel Financial Fitness* (S)	Foundations of Food and Nutrition The Art and Science of Food Fashion, Textiles, and Apparel Advanced Fashion, Textiles and Apparel (Level 1) Financial Fitness* (S)	Foundations of Food and Nutrition The Art and Science of Food Culinary Arts (Honors) Fashion, Textiles, and Apparel Advanced Fashion, Textiles, and Apparel (Level 1) Business of Fashion (Honors) Child Growth and Development Financial Fitness* (S)	Foundations of Food and Nutrition The Art and Science of Food Culinary Arts (Honors) Fashion, Textiles, and Apparel Advanced Fashion, Textiles, and Apparel (Level 1) Business of Fashion (Honors) Child Growth and Development Financial Fitness *(S)

\* Financial Fitness will satisfy the 2.5 credits of Financial Literacy required for graduation.

## **FAMILY AND CONSUMER SCIENCES**

**FOUNDATIONS OF FOOD AND NUTRITION (INTRODUCTORY)** - Food and its nutrition is a basic and integral part of life. This introductory course focuses on the practical application of food safety and sanitation, food selection, preparation, food costs, food labels and serving of food. Laboratory experiences use technology in food preparation as it relates to safety and time management. Meal etiquette, nutrition and current trends in health associated with nutrition are addressed. Career opportunities in food and nutrition related fields are presented.

**THE ART AND SCIENCE OF FOOD (LEVEL 1)** - Have you ever wondered why popcorn pops or why cakes rise? Students examine the science of food as it relates to a variety of food preservation techniques, leavening of baked products, emulsions, etc. This course will provide more advanced work in safety and sanitation, food preparation, meal planning, consumer selection and nutrition. Food experiences will take a more creative direction as students discover the visual influence of food with plate presentations and pastry arts. "Hands-on" experience makes this course dynamic and relevant. Career opportunities are explored. Prerequisite: **FOUNDATIONS OF FOOD AND NUTRITION**

**CULINARY ARTS (HONORS)** - This advanced course is designed for students who have genuine interest in food, nutrition and related careers. Students will master safety and sanitation, the use of equipment and service techniques. Learning to prepare and appreciate a wide range of regional and international cuisines while developing understanding of the significant role of food in celebrations are some of the goals of this course. Quantity food preparation and related careers opportunities in food service, hospitality and entrepreneurship will be examined. Prerequisite: **FOUNDATIONS OF FOOD AND NUTRITION AND THE ART AND SCIENCE OF FOOD**

**FASHION, TEXTILES, AND APPAREL** - You are unique and your clothing should reflect your special personality. This course focuses on textiles and clothing construction techniques which enable students to create personalized garments. The alteration, care, repair, and recycling of ready to wear apparel and accessories are included to make students wise consumers.

**ADVANCED FASHION, TEXTILES, AND APPAREL (LEVEL 1)** - This advanced course is perfect for students interested in clothing design and construction. Students will utilize the principle of line and design as they apply to fashion. The experiences include flat pattern design, the selection and pairing of textiles, and the use of interfacings and trims. Prerequisites: **FASHION, TEXTILES, AND APPAREL**.

**THE BUSINESS OF FASHION (HONORS)** - Fashion is everywhere! Fashion is art, talent, aesthetics, and skill; fashion is big business. This course will explore the wide variety of jobs in the fashion industry while continuing to work on projects and technical skills needed for success in this diverse, creative, and demanding field. Prerequisite: **ADVANCED FASHION, TEXTILES, AND APPAREL**.

**CHILD GROWTH AND DEVELOPMENT** - Studying children and child development is important whether parenthood is in your future, you plan a career in a child-related profession, or you just like to spend time with children. Learn how children develop physically, intellectually, socially and emotionally. Explore the areas of caring for, nurturing and guiding children. Develop skills for making decisions and thinking critically. Apply what you have learned into practical experience with four-year-olds in a pre-school setting.

**FINANCIAL FITNESS (SEMESTER)** - Be better prepared to meet the financial challenges of everyday living! The focus of this course is the development of lifelong skills for managing all areas of your life. Maximize your personal traits, learn positive communication and relating to others, examine the skills needed to select and progress towards a career, manage resources, and balance multiple roles. Housing, food, health and crisis management are also addressed in this course. Grow and develop to your fullest potential. This course fulfills the Financial Literacy state graduation requirement.



# 21st CENTURY LIFE AND CAREER, BUSINESS, AND TECHNOLOGY DEPARTMENTS

## BUSINESS

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<ul style="list-style-type: none"> <li>• Financial Literacy (S)</li> <li>• Business Applications (S)</li> <li>• Multimedia and Digital Tools for Business</li> <li>• Introduction to Business</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Literacy (S)</li> <li>• Business Applications (S)</li> <li>• Multimedia and Digital Tools for Business</li> <li>• Introduction to Business</li> <li>• Marketing and Advertising</li> <li>• Economics</li> <li>• Legal Foundations of Business</li> <li>• Accounting 1</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Literacy (S)</li> <li>• Business Applications (S)</li> <li>• Multimedia and Digital Tools for Business</li> <li>• Introduction to Business</li> <li>• Marketing and Advertising</li> <li>• Economics</li> <li>• Legal Foundations of Business</li> <li>• Accounting 1</li> <li>• Accounting 2</li> <li>• International Business</li> <li>• AP Economics (Micro/Macro)</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Literacy (S)</li> <li>• Business Applications (S)</li> <li>• Multimedia and Digital Tools for Business</li> <li>• Introduction to Business</li> <li>• Marketing and Advertising</li> <li>• Economics</li> <li>• Legal Foundations of Business</li> <li>• Accounting 1</li> <li>• Accounting 2</li> <li>• International Business</li> <li>• AP Economics (Micro/Macro)</li> </ul>

## **BUSINESS**

**FINANCIAL LITERACY (SEMESTER)** - You will learn the basics of financial literacy and banking in this course. Topics covered include: bad debt, importance of spending plans, non-traditional financial services, being an informed consumer, buying stocks, sell strategy, mutual fund options, investing in education, planning for the future, purchasing your first home, taxes and tax planning, life insurance options, health insurance, property insurance, estate planning, and keeping money in perspective. *This is a Level 2 elective with no prerequisite. The course satisfies the Economics/Financial Literacy requirement for graduation.*

**BUSINESS APPLICATIONS (SEMESTER)** - Students will develop proficiency with Microsoft Access®, Excel®, Word®, PowerPoint and Publisher software, and the integration of these programs. This course is designed to focus on advanced functions of Office that will help students navigate one of the most utilized software programs in education and business. The knowledge of these applications is vital for the student in high school, college, and in his or her career for communicating, collaborating, presenting and analyzing. Much of the curriculum is individualized; students must have good problem solving, organizational, and motivational skills. *This is a Level 2 course with no prerequisite.*

**MULTIMEDIA AND DIGITAL TOOLS FOR BUSINESS** - Advanced features of Microsoft Office will be explored to analyze information and data used in making business decisions. Recognizing the role the internet plays in business operations the course includes units in designing and maintaining web sites utilizing HTML to present graphics, text, animation and interactive environments. Applications of Dreamweaver and Photoshop are also included. *This is a Level 2 course with no prerequisite.*

**INTRODUCTION TO BUSINESS** - This course introduces students to the world of business. Topics covered include types of business ownership, marketing, accounting, human resources, management, finance, ethics, and economics. These concepts are presented through classroom discussion and project-based learning. Students considering business careers or college studies are encouraged to take this course. *This is a Level 2 course with no prerequisite.*

**ECONOMICS** - This course will give the students a greater understanding of economics ranging from the viewpoint of the individual consumer or small business owner to the global economy. The course will study the law of supply and demand, forms of business, labor unions, government finances and influence on the economy, money and prices, inflation and deflation cycles. The course relates history and politics to the study of economics. *The course satisfies the Economics/Financial Literacy requirement for graduation. This is a Level 1 course which requires ONE prior business course.*

**MARKETING & ADVERTISING** - This course examines the field of marketing and its essential role in all aspects of business. Topics covered include the role of marketing in today's society, marketing careers, product planning and development, pricing strategies, distribution methods, sales techniques, promotion, visual merchandising, and marketing math skills. Marketing principles learned will be applied through industry-specific units on sports, entertainment, travel/tourism, and fashion marketing. Students will learn the history of advertising, its role in today's society, how the advertising industry works, careers in advertising, and the principles and techniques used to create ads for a variety of media. Emphasis is placed on planning and designing print ads, radio and TV commercials, internet and other specialty ads that appeal to certain target markets. *This is a Level 1 course which requires ONE prior business course.*

**LEGAL FOUNDATIONS OF BUSINESS** - Students will be introduced to the legal framework of business and the law of contracts as well as consumer law. Topics will include a general overview of the nature of law and its relationship to ethics; theories of contract, torts, and property; criminal law as it applies to business situations; and theories of the business enterprise and its regulation. Government regulation related to the environment, consumer protection, hiring practices, and occupational safety will also be addressed. Students will also learn about the efforts of the courts and legislature in dealing with technology's impact on the law particularly with regard to computers and the internet. *This is a Level 1 course for which ONE prior business course is required.*

**ACCOUNTING I** - Accounting 1 is an introduction to the theoretical structure of accounting and methods and procedures necessary to achieve effective financial reporting for the successful ongoing operation of a business. During this year-long class, students will learn the fundamentals of accounting using a sole proprietorship and corporation as a basis for study. Students will develop an understanding of the balance sheet, income statement, and statement of cash flows from recording and summarizing basic accounting transactions, preparing financial statements, payroll records, income tax forms through interpreting financial statements as part of the management decision-making process. A combination of manual and PC-based automated accounting systems will be used. *This is a Level 1 course for which ONE prior business course is required.*

**ACCOUNTING II** – This course addresses the fundamental principles of cost and managerial accounting applied to manufacturing and service enterprises. Students will receive an introduction to cost behavior, managerial decision models, cost and budgetary planning and control, standard costing, analysis of variance, job order and process costing systems, cost allocation, and responsibility accounting. A combination of manual and PC-based automated accounting systems will be used. *This is an Honors Level course for which Account I is the prerequisite.*

**INTERNATIONAL BUSINESS** - America's future is rooted in the global economy. This course provides students with a global perspective of economics, political structure and culture, and will open your eyes concerning globalization's impact on day-to-day living and personal finance. Cultural customs and traditions, trade, currency, business travel, geography, current events, international marketing, global issues, and career opportunities will be major topics of discussion. Areas to be covered include the awareness of the impact of International Business, communication strategies, environmental factors, ethics, finance, management practices, and import/export and balance of trade issues. Students will gain awareness of the growing need for becoming active in a global business economy and provides a solid foundation for college courses in business and international studies. *This is an Honors Level course for which two prior business courses are required.*

**AP ECONOMICS** - Advanced Placement Economics is designed to address both micro and macroeconomics to prepare students to take one or both AP Exams. Microeconomics focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course will develop students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Macroeconomics addresses the principles that apply to an economic system as a whole with particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. *PREQUISITE: Students must have completed Economics or its predecessor courses Micro/Macro Economics. This is an AP Level course. Students must be able to read a college-level textbook and should possess strong mathematics and graphing skills.*

# 21st CENTURY LIFE AND CAREER, BUSINESS, AND TECHNOLOGY DEPARTMENTS

## TECHNOLOGY EDUCATION

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<p>Engineering Design and Drawing 1 Architectural Drawing 1 Communications Tech/ Photography 1 Wood/Materials Processing Tech 1 Automotive Technology 1 (EHS) Electronics 1 Technology Fundamentals Video Production 1 (JPS) Study of Film History (JPS)</p> <p>Engineering Innovation (EHS) <i>Open only to students enrolled in The Science and Engineering Academy.</i></p>	<p>Engineering Design and Drawing 1 Engineering Design and Drawing 2 Architectural Drawing 1 Architectural Drawing Advanced (Level 1) Communications Tech/ Photography 1 Communications Tech/ Photography 2 (Level 1) Wood/Materials Processing Tech 1 Wood/Materials Processing Tech 2 (Level 1) Automotive Technology 1 (EHS) Automotive Technology 2 (EHS) (Level 1) Electronics 1 Electronics 2 (Level 1) Robotics 1 (Level 1) Technology Fundamentals Science and Engineering Video Production 1 (JPS) Study of Film History (JPS)</p> <p>Engineering Graphics (EHS) <i>Open only to students enrolled in The Science and Engineering Academy.</i></p>	<p>Engineering Design and Drawing 1 Engineering Design and Drawing 2 Engineering Design Advanced (Honors) Architectural Drawing 1 Architectural Drawing Advanced (Level 1) Communications Tech/ Photography 1 Communications Tech/ Photography 2 (Level 1) Communications Tech/ Photography 3 (Honors) Wood/Materials Processing Tech 1 Wood/Materials Processing Tech 2 (Level 1) Wood/Materials Processing Tech 3 (Honors) Automotive Technology 1 (EHS) Automotive Technology 2 (EHS) (Level 1) Automotive Technology 3 (EHS) (Honors) Electronics 1 Electronics 2 (Level 1) Electronics 3 (Honors) Robotics 1 (Honors) Technology Fundamentals Video Production 1 (JPS) Study of Film History (JPS)</p> <p>Electronic Engineering and Design (EHS) <i>Open only to students enrolled in The Science and Engineering Academy.</i></p>	<p>Engineering Design and Drawing 1 and 2 Engineering Design Advanced (Honors) Architectural Drawing 1 Architectural Drawing Advanced (Level 1) Communications Tech/ Photography 1, 2, 3 and 4 Wood/Materials Processing Tech 1 Wood/Materials Processing Tech 2 (Level 1) Wood/Materials Processing Tech 3 (Honors) Construction Technology Automotive Technology 1 (EHS) Automotive Technology 2 (EHS) (Level 1) Automotive Technology 3 (EHS) (Honors) Occupational Automotive Technology (2 pds.) (EHS) (Honors) Electronics 1 Electronics 2 (Level 1) Electronics 3 (Honors) Robotics 1 (Level 1) Robotics 2 (Honors) Technology Fundamentals Video Production 1 (JPS) Study of Film History (JPS)</p> <p>Senior Design and Capstone Experience (EHS) <i>Open only to students enrolled in The Science and Engineering Academy.</i></p>

## TECHNOLOGY EDUCATION

Technology in the 21st century includes both digital learning as well as the creative design process. The technology courses offered require students to think critically as they communicate and collaborate with others. These courses allow students to actively engage in the design process, which helps students realize that failure is not an end, but rather a necessary step on the way to success. Students may be required to pay for those materials in excess of the prorated cost of the construction of their projects. Students must comply with state and school-mandated safety and hazardous substances requirements and demonstrate an understanding of general and specific safety and Right-to-Know regulations in the shop/lab.

Each Mechanical Drawing/Architectural Drawing course will include instruction involving computer-aided drafting technology.

Each Graphic Arts course will include instruction in computerized desktop publishing techniques and a wide variety of individualized photography experiences.

**ENGINEERING DESIGN AND DRAWING 1** - Basic mechanical drawing will develop the student's ability to solve technical problems through the use of the basic tools and techniques of drafting. Students will also acquire an understanding of the career opportunities in mechanical drawing and related fields of technology.

**ENGINEERING DESIGN AND DRAWING 2 (LEVEL 1)** - This course is an introduction to more complex mechanical drawings (machine drawings and pictorial drawings). Students will understand the importance of drafting and acquire an appreciation for good craftsmanship through continued skill development in the use of drafting tools and instruments. Prerequisite: **ENGINEERING DESIGN AND DRAWING 1**.

**ENGINEERING DESIGN AND DRAWING - ADVANCED (HONORS)** - Advanced techniques in machine drawings, sheet metal drawings, electrical drawings, and technical illustrations will be emphasized in this course. Students will develop the ability to perceive aesthetic values and the ability to analyze and reason in the mechanical drawing field. Prerequisite: **ENGINEERING DESIGN AND DRAWING 2**.

**ARCHITECTURAL DRAWING 1** - This course will provide students with principles and techniques essentially related to architectural drawing and design. Emphasis will be placed on basic elements of house construction, local building requirements, traditional house styles, and contemporary house planning, and will explore careers related to architecture.

**ARCHITECTURAL DRAWING - ADVANCED (LEVEL 1)** - This course will be a continuation of **ARCHITECTURAL DRAWING 1**. Emphasis will be placed on creative, technical, and aesthetic design concepts, presentation drawings, architectural renderings, new construction processes, and new uses for existing materials. Students will be taught to recognize good design and craftsmanship. Prerequisite: **ARCHITECTURAL DRAWING 1**.

**COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 1** - Communication Technology/Photograph 1 is a full year course that is a combination of traditional black and white film photography, digital photography and computer graphics. This course provides a basic understanding of the technical aspects of black and white photography involving camera operation, exposure control, film processing and print enlarging. The students will become familiar with photographic materials, as well as artistic composition and design. The digital photography unit is designed to show students how to use a digital camera to capture images and to edit, manipulate and produce top quality digital photographs in Photoshop. In the computer graphics portion of the class students use Adobe Illustrator to create text and graphics.

**COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 2 (LEVEL 1) - Communication**

Technology/Photography 2 is a full year course that covers digital and traditional black and white film photography, computer graphics and video editing. This course explores the use of tools and computer graphics techniques to produce professional graphic designs. Digital Video is a unit in the photography curriculum that develops career and communication skills in video production using a variety of forums. Prerequisite: **COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 1.**

**COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 3 (HONORS)** - This is an advanced course for students looking to expand their knowledge and understanding of the communications industry. Emphasis will be in digital video and photography. Digital video curriculum will develop knowledge in storytelling, capturing and editing video and audio. Curriculum that develops career and communication skills will be explored in this class. Students will also have the option to concentrate a specific area of study with the approval of their instructor. Prerequisite: **COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 2.**

**COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 4 (HONORS)** - This is an advanced independent study course for career-oriented students. An area of concentration is agreed upon by student and instructor and a contractual agreement is established regarding requirements for successful completion of this course. Prerequisite: **COMMUNICATIONS TECHNOLOGY/PHOTOGRAPHY 3.**

**WOOD/MATERIALS PROCESSING TECHNOLOGY 1** - Through the development of various problem solving activities, students will be introduced to the proper use of tools and machines. Different materials and manufacturing processes commonly associated with various industries will be explored.

**WOOD/MATERIALS PROCESSING TECHNOLOGY 2 (LEVEL 1)** - With the successful completion of Wood/Materials Processing Technology 1, the student will be able to develop extensive learning activities and construct projects of their choice using alternative materials with emphasis on various tool operations. Prerequisite: **WOOD/MATERIALS PROCESSING TECHNOLOGY 1**

**WOOD/MATERIALS PROCESSING TECHNOLOGY 3 (HONORS)** - Upon completion of Woods/Materials Processing Technology 1 and 2, the student has the opportunity to be involved in an independent study program. Students who plan to enter the woodworking or occupational field or interested in advanced woodworking as a leisure time activity can benefit from this course. Prerequisite: **WOOD/MATERIALS PROCESSING TECHNOLOGY 2**

**CONSTRUCTION TECHNOLOGY** - Students will have a hands-on experience in all finishing areas of building. The course begins with basic surveying land and continues through to the final finishing work, both interior and exterior. Students will also be introduced to basic home repair. Prerequisite: **WOOD/MATERIALS PROCESSING TECHNOLOGY 1**

**AUTOMOTIVE TECHNOLOGY 1** - This is an introductory course covering vehicle maintenance, driveline, wheels and tires, brakes and suspension, as well as basic vehicle systems such as cooling, lubrication, charging, starting, ignition and basic engine operation. Broader, but still vehicle related topics include: electrical theory, Newton's laws, Boyle's law, Bernoulli's Principle, English and Metric measurement, materials processing and machine and hand tool operation safety.

**AUTOMOTIVE TECHNOLOGY 2 (LEVEL 1)** - Using what was learned in the Auto 1 course, students will begin to explore the diagnostic tools and procedures necessary to make specific automotive systems repairs. In addition, new systems to be covered are: computer controlled fuel injection, emissions, climate control, antilock brakes, power steering, and automatic transmissions. Schematic diagrams, Ohms law and Watts are covered and students use multimeters to measure electrical quantities on shop vehicles. Prerequisite: **AUTOMOTIVE TECHNOLOGY 1**

**AUTOMOTIVE TECHNOLOGY 3 (HONORS)** - Students will engage in an in-depth study on the diagnostics and repair of specific automotive systems. Students will trouble shoot malfunctions using industry standard flow charts and modern diagnostic equipment. A greater emphasis is spent on the On Board Diagnostic (OBD) II computer systems and operations of modern vehicles. Voltage drop and battery drain is covered and students will make practical measurements on shop vehicles. Prerequisite: **AUTOMOTIVE TECHNOLOGY 1 AND 2.**

**OCCUPATIONAL AUTOMOTIVE TECHNOLOGY (HONORS)** - This is a double period course allowing the advanced student time to complete each comprehensive task uninterrupted. Topics include: fabrication, engine rebuilding, restoration and industry procedures. This course is especially geared for the student interested in a career as an automotive technician. Automotive Service Excellence (ASE) test question study and preparation is provided throughout the course. Prerequisite: **AUTOMOTIVE TECHNOLOGY 1, 2 AND 3.**

**ELECTRONICS TECHNOLOGY 1** - This course is an introductory course dealing with the application of electricity in the modern world. Students will explore AC and DC circuits, various electronic components, and circuit design. During the course, students will have the opportunity to work with tools and machines, design and construct many electronic projects, such as, make their own circuit boards and are given an intro to basic robotics. Scientific concepts and mathematical relationships in electronics are also explored. These concepts are applied in a learner-based problem solving environment.

**ELECTRONICS TECHNOLOGY 2 (LEVEL 1)** - This course is a continuation of the concepts learned in Electronics I. In addition, radio, rectifiers, integrated circuits, amplifiers and electro-mechanics is explored. These concepts are applied in a learner-based problem solving environment. Projects such as sound-operated circuits, strobe lights, motors, and intermediate robotics are explored. These concepts are applied in a learner based problem solving environment. Prerequisite: **ELECTRONICS 1.**

**ELECTRONICS TECHNOLOGY 3 (HONORS)** - This course is a continuation of the concepts learned in Electronics I and II. A heavy emphasis is placed on digital circuits and logic gates. Programmable Integrated Circuits are introduced and students use them to control motors and servers in various circuit applications of their design. Students also explore household AC wiring and its installation. Scientific concepts and mathematical relationships in electronics are reinforced and demonstrated in a learner-centered problem solving environment. Prerequisite: **ELECTRONICS 2.**

**ROBOTICS 1 (LEVEL 1)** - This course follows Electronics 2. It will focus on students' ability to construct, control and program robots through investigative and exploration activities. Research projects will expose the students to the engineering process while integrating science, technology and mathematics using STEM Education concepts. Prerequisite: **ELECTRONICS 2 AND/OR PERMISSION OF THE INSTRUCTOR.**

**ROBOTICS 2 (HONORS)** - This course follows Robotics 1. It will further enhance students' ability to utilize robots efficiently to improve quality of living through the progression of the 21<sup>st</sup> Century. Students will build on their ability to construct, control, and program robots, implementing what they have learned regarding the engineering process while incorporating various STEM Education concepts. The students will receive a comprehensive overview of robotic systems and the subsystems that comprise them. Prerequisite: **Robotics 1.**

**TECHNOLOGY FUNDAMENTALS** - This course is designed for students interested in all areas of design and technology. The course provides students with the skills and techniques necessary to become better designers. Students are expected to use a variety of tools, equipment and materials to develop competencies in various areas of design. Throughout the course students will develop creative solutions to a series of design problems such as Magnetic Levitation, Robotics, Co2 Vehicles, among others. Students will publish the information using Educational Technology and develop their own Web site as well.

**VIDEO PRODUCTION 1** - This course is a hands on course that will allow students to express themselves creatively through video film. Students will learn the ins and outs of a film production including how to develop a story, write a script, prep and prepare for a video shoot, use a camera to film the story, and edit the film to produce a short form video. They will learn and practice the basics of creating a film and how to work with others through the many challenges in a time-crunch setting. Students will learn everything from pre-production to post production. This course will teach students the many different film roles that are seen in the film industry and allow the students to take on the rolls to further develop their skills in time management and collaboration.

**STUDY OF FILM HISTORY** - This course will teach students the history of film. Students will study different types of films, different styles of writing, different directors, varied film techniques and different editing styles. Students also will study genres and music selection, and how these details shape the outcome of a product. Students will study the change in film from the 1920s to current times and see how each aspect has developed over time. In addition, student will learn the proper procedures in developing a film from pre-production to post production. The course also will expose students to the different careers within the film industry.



# VISUAL AND PERFORMING ARTS DEPARTMENT

## VISUAL ARTS

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Art 1 (Level 2) Ceramics Three-Dimensional Design (Level 2) Painting/Drawing (Level 2) Printmaking and Design (Level 2)	Art 1 (Level 2) Art 2 (Level 2) Visual Arts 1-1 (Accelerated) Ceramics Three-Dimensional Design (Level 2) Painting/Drawing (Level 2) Printmaking and Design (Level 2)	Art 1 (Level 2) Art 2 (Level 2) Visual Arts 1-1 (Accelerated) Visual Arts 2-H (Honors) Ceramics Three-Dimensional Design (Level 2) Painting/Drawing (Level 2) Printmaking and Design (Level 2) AP Studio Art 3-D	Art 1 (Level 2) Art 2 (Level 2) Visual Arts 1-1 (Accelerated) Visual Arts 2-H (Honors) Visual Arts3/Studio Art 2-D AP AP Studio Art 3-D Ceramics Three-Dimensional Design (Level 2) Painting/Drawing (Level 2) Printmaking and Design (Level 2)

# VISUAL AND PERFORMING ARTS DEPARTMENT

## PERFORMING ARTS

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
<p>Symphonic Band 9 (Level 2)  Wind Ensemble 9 (Level 2)  Orchestra 9 (Level 2)  Concert Choir 9 (Level 2)  A Capella 9 (Level 2)  Music Theory 1 (Level 2)  Introduction to Music  Technology/Composition  Guitar 1  Dance 1 (Level 1)</p>	<p>Symphonic Band 1-2 (Level 2)  Wind Ensemble 1-1 (Accelerated)  Orchestra 1-2 (Level 2)  Chamber Orchestra 1-1  (Accelerated)  Concert Choir 1-2 (Level 2)  A Capella 1-1 (Accelerated)  Chamber Singers 1-1 (Accelerated)  Music Theory 1 (Level 2)  Music Theory 2 (Level 2)  A/P Music Theory (Honors)  Introduction to Music  Technology/Composition  Music Technology II: Electronic  Music &amp; Audio Engineering  Guitar 1  Guitar 2 (Accelerated)  Dance 1 (Level 2)  Dance 2 (Accelerated)</p>	<p>Symphonic Band 1-2 (Level 2)  Symphonic Band 2-1 (Accelerated)  Wind Ensemble 1-1 (Accelerated)  Wind Ensemble 2-H (Honors)  Orchestra 1-2 (Level 2)  Orchestra 2-1 (Accelerated)  Chamber Orchestra 1-1  (Accelerated)  Chamber Orchestra 2-H (Honors)  Concert Choir 1-2 (Level 2)  Concert Choir 2-1 (Accelerated)  A Capella 1-1 (Accelerated)  A Capella 2-H (Honors)  Chamber Singers 1-1 (Accelerated)  Chamber Singers 2-H (Honors)  Music Theory 1 (Level 2)  Music Theory 2 (Level 2)  A/P Music Theory (Honors)  Introduction to Music  Technology/Composition  Music Technology II: Electronic  Music &amp; Audio Engineering  Guitar 1  Guitar 2 (Accelerated)  Guitar 3 (Honors)  Dance 1 (Level 2)  Dance 2 (Accelerated)  Dance 3 (Honors)</p>	<p>Symphonic Band 1-2 (Level 2) - 3H  Symphonic Band 2-1 (Accelerated)  Wind Ensemble 1-1 (Accelerated)  Wind Ensemble 2-H (Honors)  Orchestra 1-2 (Level 2)  Orchestra 2-1 (Accelerated)  Chamber Orchestra 1-1  (Accelerated)  Chamber Orchestra 2-H (Honors)  Concert Choir 1-2 (Level 2)  Concert Choir 2-1 (Accelerated)  A Capella 1-1 (Accelerated)  A Capella 2-H (Honors)  Chamber Singers 1-1 (Accelerated)  Chamber Singers 2-H (Honors)  Music Theory 1 (Level 2)  Music Theory 2 (Level 2)  A/P Music Theory (Honors)  Introduction to Music  Technology/Composition  Music Technology II: Electronic  Music &amp; Audio Engineering  Guitar 1  Guitar 2 (Accelerated)  Guitar 3 (Honors)  Guitar 4 (Honors)  Dance 1 (Level 2)  Dance 2 (Accelerated)  Dance 3 (Honors)</p>

## **VISUAL ARTS**

**ART 1** - This is a course to introduce students to all aspects of the creative arts with major emphasis on the visual elements of design. Students learn to use the elements as tools to help express themselves and to evaluate the quality of art objects. Students will explore media such as painting, perspective, portraits, figure drawing, graphics, ceramics, vocations, drawing, lettering, and art history. Students successfully completing this course receive LEVEL 2 credit.

**ART 2** - This course is a continuation of **ART 1** with an emphasis on skill and technique in the use of media. It is designed to develop creative abilities, self-expression, and the appreciation of art in our daily lives. Areas of study include various types of painting, drawing, cartooning, printmaking, commercial art, and sculpture. Prerequisite: **ART 1**. Students successfully completing this course receive LEVEL 2 credit.

**VISUAL ARTS 1** - This course is designed for the serious student who wishes to prepare for a career in the arts or for those students who have demonstrated above-average ability in the arts area. The visual arts program is a three-year sequential program of skill development leading to art school, college, or university study in the arts. The student will be pursuing a program of structured skill development including study in design elements, drawing, painting, graphics, photography, advertising, illustration, fashion design, package design, and computer graphics. Students will be prepared to mount and mat art work, and explore careers of the artist/designer. Prerequisite: **ART 1**. Students successfully completing this course receive ACCELERATED credit.

**VISUAL ARTS 2** - This second-year course in the visual arts program is designed to develop the student as a professional in the arts. The program explores painting, drawing, graphics, and the commercial areas to a higher degree. The student will be introduced to art history, will prepare creative compositions to be used in the development of a portfolio and pursue personal interests in an independent study program. Emphasis will be placed upon exploring college requirements, scholarships, and goal development. Prerequisites: **VISUAL ARTS 1**, approval of department staff. Students successfully completing this course receive HONORS credit.

**VISUAL ARTS 3/AP STUDIO ART 2-D** - This course is divided into two parts: portfolio development and the study of art history. This course may lead a student to advanced standing in art schools and colleges. The first semester, devoted to portfolio development, will take two directions: drawing skills and the traditional portfolio. The major emphasis is on student responsibility, self-motivation, personal commitment, and slide preparation. The second semester will be devoted to the survey of art objects from prehistoric times to the present, with the intention of relating art production to ideals, values, needs, and hopes of people at different times in history. Prerequisites: **VISUAL ARTS 2**, approval of department staff. Students successfully completing this course receive HONORS credit.

**AP Studio Art 3-D** - The 3-D Design AP course will require the student to create a portfolio designed for depth of investigation and the process of discovery. The portfolio is comprised of two sections: the Concentration section, which involves the manipulation of materials such as clay, plaster, and any found objects/materials. The Breadth section will demonstrate the student's strong skills in visual principles and material techniques. Prerequisites: **3-D Design or Ceramics**, approval of department staff. Students successfully completing this course receive HONORS credit.

**CERAMICS** - This course gives emphasis to the variety of ceramic sculptural forms as well as objects for everyday use. **CERAMICS** explores hand-built and wheel-thrown methods of clay construction, introduces glaze design and chemistry, and surveys the history of ceramic design. Individual guidance is offered to students in developing a sense of three-dimensional design and responsiveness to the material. In the second half of this full year course, the emphasis will be on the wheel-thrown methods of construction and on forming spouts, lids, necks, handles, and feet in the production of utilitarian pieces. Sculptural work will also be explored using both wheel-thrown and hand-built techniques. Decorating, texturing, glazing, and staining of pieces will be taught and students will assist in kiln loading and firing. In addition, the historical importance of clay in civilization will be presented and a final project and/or research paper will be required. Students successfully completing this course receive LEVEL 2 credit.

**THREE-DIMENSIONAL DESIGN** - People exist and move within a spatial reality consisting of three dimensions. An understanding of those dimensions is essential if individuals are to relate effectively to their surroundings. This course deals with the elements which make up the visual areas of three-dimensional expressive arts. Areas of exploration are crafts, jewelry, mobiles, sculpture and architecture. In addition, the historical significance of major three-dimensional works will be presented. Students successfully completing this course receive LEVEL 2 credit.

**PAINTING/DRAWING** - Artists use various materials to communicate sensory, emotional, and intellectual reactions to the visual world. The goal of this course is to explore the skills and techniques required to communicate through painting and drawing media. Students will be exposed to the historical importance of artists in the development of painting and drawing. Individualized instruction as well as group activities will be important parts of this course. Various media such as charcoal, pastels, colored pencil, oil and acrylic paint and water colors will be utilized. **ART 1** is recommended. Students successfully completing this course receive LEVEL 2 credit.

**PRINTMAKING AND DESIGN** - The creating of a design and the application of that design to reproduction is a key to the **PRINTMAKING AND DESIGN** course. Students are exposed to the elements of design through screen printing, lithography, etching, relief printing, and other graphic processes. Students learn the terminology and techniques necessary to communicate through printmaking processes. Individualized instruction, group projects, and technical demonstrations are the types of activities comprising this course. Students successfully completing this course receive LEVEL 2 credit.

## **PERFORMING ARTS**

**SYMPHONIC BAND 9** - This course is opened to 9<sup>th</sup> grade students with previous experience on a band instrument and non-experienced students will require permission of the director. This course is a follow-up to the middle school band program and will introduce students to high school band literature. Emphasis is placed upon developing individual performance skills. Students may have an opportunity to pursue a secondary instrument of study. Students successfully completing this course receive LEVEL 2 credit.

**SYMPHONIC BAND 1** - This course is an expansion of the Symphonic Band 9 course. Students are exposed to sophisticated literature, have the opportunity to perform at specialized venues, and are challenged to further improve individual and ensemble skills. The development of secondary instrumental study is also a component of this course. Students completing one year of study in this course receive LEVEL 2 credit.

**SYMPHONIC BAND 2** - This course is a continuation of the Symphonic Band 1 course. Students are exposed to sophisticated literature, have the opportunity to perform at specialized venues, and are challenged to further improve individual and ensemble skills. The development of secondary instrumental study is also a component of this course. Students completing one year of study in this course receive ACCELERATED credit.

**SYMPHONIC BAND 3H** - This course is a continuation of the Symphonic Band 2 course. Students are exposed to sophisticated literature, have the opportunity to perform at specialized venues, and are challenged to further improve individual and ensemble skills. The development of secondary instrumental study is also a component of this course. Students completing one year of study in this course receive HONORS credit.

**WIND ENSEMBLE 9** - This course is composed of the outstanding 9<sup>th</sup> grade instrumentalist who has secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant wind band literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive LEVEL 2 credit.

**WIND ENSEMBLE 1** - This course is composed of outstanding instrumentalists who have successfully completed one year of study in Concert Band 9 or Symphonic Band I/II and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant wind band literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive ACCELERATED credit.

**WIND ENSEMBLE 2** - This course is composed of the outstanding instrumentalists who have successfully completed one year of study in Wind Ensemble 1 and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant wind band literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive HONORS credit.

**ORCHESTRA 9** - This course is opened to 9<sup>th</sup> grade students with previous experience on a stringed instrument and non-experienced students will require permission of the director. This course is a follow-up to the middle school orchestra program and will introduce students to high school orchestra literature. Emphasis is placed upon developing individual performance skills. Students may have opportunity to pursue a secondary instrument of study. Students successfully completing this course receive LEVEL 2 credit.

**ORCHESTRA 1** - This course is an expansion of the Orchestra 9 course. Students are exposed to significant literature, have the opportunity to perform at specialized venues, and are challenged to further improve individual and ensemble skills. The development of secondary instrumental study is also a component of this course. Students successfully completing this course receive LEVEL 2 credit.

**ORCHESTRA 2** - This course is an expansion of the Orchestra 1 course. Students are exposed to significant literature, have the opportunity to perform at specialized venues, and are challenged to further improve individual and ensemble skills. The development of secondary instrumental study is also a component of this course. Students successfully completing this course receive ACCELERATED credit.

**CHAMBER ORCHESTRA 1** - This course is composed of outstanding instrumentalists who have successfully completed one year of study in Orchestra 9 or Orchestra I/II and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant orchestral literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive ACCELERATED credit.

**CHAMBER ORCHESTRA 2** - This course is composed of outstanding instrumentalists who have successfully completed one year of study in Chamber Orchestra 1 and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant orchestral literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive HONORS credit.

**CONCERT CHOIR 9** - This course is opened to 9<sup>th</sup> grade students with previous singing experience. This course is a follow-up to the middle school choral program and will introduce students to high school choral literature. Emphasis is placed upon developing individual performance skills. Students may have opportunity to perform at a variety of venues. Students successfully completing this course receive LEVEL 2 credit.

**CONCERT CHOIR 1** - This course is an expansion of the Concert Choir 9 course. Students are exposed to sophisticated literature, have the opportunity to perform at various venues, and are challenged to develop individual and ensemble skills. Students successfully completing this course receive LEVEL 2 credit.

**CONCERT CHOIR 2** - This course is an expansion of the Concert Choir 1 course. Students are exposed to sophisticated literature, have the opportunity to perform at various venues, and are challenged to develop individual and ensemble skills. Students successfully completing this course receive ACCELERATED credit.

**A CAPPELLA CHOIR 9** - This course is composed of the outstanding 9<sup>th</sup> grade vocalists who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant choral literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive LEVEL 2 credit.

**A CAPPELLA CHOIR 1** - This course is composed of outstanding vocalists who have successfully completed one year of study in Concert Choir 9 or A Cappella 9 and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant choral literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive ACCELERATED credit.

**A CAPPELLA CHOIR 2** - This course is composed of outstanding vocalists who have successfully completed one year of study in A Cappella Choir 1 and who have secured the recommendation of the department through audition and/or recommendation. The focus of this class is on the preparation and performance of significant choral literature. Attendance is required at all performance activities in and out of school. Students successfully completing this course receive HONORS credit.

**CHAMBER SINGERS 1** - This course is composed of students who, by audition, display exceptional aural, oral and musical abilities. Continual emphasis is placed upon learning to sing and perform mature solo and ensemble literature of the highest level. A limited enrollment will place strong demands on each member of this course and performance is required at all performance events in and out of school. Students successfully completing this course receive ACCELERATED credit.

**CHAMBER SINGERS 2** - This course is composed of students who, by audition, display exceptional aural, oral and musical abilities and who have successfully completed one year of study in Chamber Singers 1. Continual emphasis is placed upon learning to sing and perform mature solo and ensemble literature of the highest level. A limited enrollment will place strong demands on each member of this course and performance is required at all performance events in and out of school. Students successfully completing this course receive HONORS credit.

**MUSIC THEORY 1** - The beginning student will be taught the fundamentals necessary to interpret, analyze, and create music. Students selecting this course should have formally studied in a musical instrument for at least one year. Students successfully completing this course receive LEVEL 2 credit.

**MUSIC THEORY 2** - Designed for the serious music student possessing talent in music, this course will serve as preparation for the student planning to major in music in college. This course will focus on the following aspects: (1) chord construction; (2) rhythmic, melodic and harmonic dictation; (3) analysis of music literature; (4) two-, three-, and four-part harmonization; (5) sight-signing; (6) original composition; (7) ear-training, (8) development of keyboard skills. Prerequisite: successful completion of **MUSIC THEORY 1** and/or teacher recommendation. Students successfully completing this course receive LEVEL 2 credit.

**AP MUSIC THEORY** - In addition to the study of advanced harmony, melodic and rhythmic concepts, in established or original music, students will be assigned a variety of composition and arrangement projects individually and in small groups. Analysis of complex harmonic structures and the development of aural skills through sight-singing and dictation will be integral to the course. Upon successful completion of this course, students are expected to take the Advanced Placement Music Theory Test as administered by the College Board. Prerequisite: Music Theory I.

**INTRODUCTION TO MUSIC TECHNOLOGY/COMPOSITION** - This course is designed to introduce many aspects of music technology, including the use of computers for composition and production, basics of hardware and software electronic instruments MIDI, the use of electronics in performance and basic audio recording and editing. Over the course of the year, students will be expected to create a number of original musical compositions and create an album of their work. Previous musical experience is not required but students with little or no previous experience will find this course challenging.

**MUSIC TECHNOLOGY II: ELECTRONIC MUSIC & AUDIO ENGINEERING** - This course is for students who wish to undertake advanced study in music technology. Students will build on knowledge and skills gained in *Introduction to Music Technology* and will continue study in electronic music and audio engineering. Students may choose to emphasize a particular area of study, such as electronic music (including effective use of MIDI and audio effects, programming of hardware MIDI controllers and instruments, principles of synthesis and sound design, and proficiency in the use of an electronic instrument) or audio engineering (including effective use of microphones, mixers and other audio equipment; listening carefully to recorded and live sound; and use of digital audio workstation software to mix, edit and master audio). All students will collaborate to create major projects integrating multiple fields of study. Students are expected to participate in any extracurricular activities involving the music technology program. Students taking this class will gain significant experience in the music technology field.

**GUITAR 1** - This course is an introductory beginning level course for students interested in learning how to play the guitar. Music reading skills will be emphasized and practiced on a daily basis. Students will also learn the concepts of reading chord notation. Guitar ensemble music will be integral to the course and include outside performance opportunities.

**GUITAR 2** - Students taking this course will continue to refine the skills learned in Guitar 1. More advanced music reading skills will be learned through daily classroom practice and instruction. Guitar ensemble music will be integral to the course and include outside performance opportunities. Students will have the opportunity to explore solo guitar repertoire from different genres (classical, jazz, etc.) Students successfully completing this course receive ACCELERATED credit.

**GUITAR 3** - Students taking this course will continue to refine the skills learned in Guitar 1 and 2. More advanced music reading skills will be mastered through daily classroom practice and instruction. Guitar ensemble music will be integral to the course and include outside performance opportunities. Students will have the opportunity to explore solo guitar repertoire from different genres (classical, jazz, etc.) Students successfully completing this course receive HONORS credit.

**GUITAR 4** - Students enrolled in Guitar 4 will have taken Guitar 1, 2 and 3. They will learn advanced technical and theoretical skills through daily classroom practice and instruction. Guitar ensemble music will be integral to the course and include outside performance opportunities. Students will also explore solo guitar repertoire from different genres (classical, jazz, etc.) Students successfully completing this course receive HONORS credit.

**DANCE 1** - is a survey-style introduction to the art of dance. The course focuses on developing proper technique and performance skills, as well as an appreciation for a variety of dance techniques and styles. Students acquire knowledge of dance history, class etiquette, injury prevention, and the rehearsal process. They also have several opportunities to explore the elements of dance and principles of choreography by creating original dance works, viewing professional examples, and learning to critique and write about dances. Students with no previous training will acquire a basic foundation of dance skills and art appreciation; while more advanced students will continue to advance their technique, artistry and dance awareness. Grade level(s): 9-12 Students successfully completing this course receive LEVEL 2 credit.

**DANCE 2** – Students taking this course will continue to refine the skills learned in Dance 1. More advanced techniques will be studied through daily classroom practice and instruction. Performance will be integral to the course and include outside performance opportunities. Students will also have the opportunity to explore the Dance repertoire from different genres. Prerequisite: Successful completion of Dance 1 and/or permission from instructor. Grade level(s): 9-12 Students successfully completing this course receive ACCELERATED credit.

**DANCE 3 (HONORS)** – Students taking this course will continue refining technical skills from Dance 2 in ballet, modern and jazz dance. Students will now focus on performance and choreographic skills. Students will develop self-discipline, teamwork, and their artistic voice through group movement studies and practice of technique. Students will create movement vocabulary and set choreography on a soloist, in a duet, and a larger group, as well as be able to critique their work and the work of others. Students are expected to strive toward a higher proficiency and will continue to be showcased in multiple performance opportunities throughout the year. Prerequisite: Successful completion of Dance 2 and/or permission from instructor. Grade level(s): 9-12 Students successfully completing this course receive Honors credit.



# SPECIAL PROGRAMS

9th	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
AVID 1 (ADVANCEMENT VIA INDIVIDUAL DETERMINATION)  Science and Engineering Academy	AVID 2 (ADVANCEMENT VIA INDIVIDUAL DETERMINATION)  Science and Engineering Academy	AVID 3 (ADVANCEMENT VIA INDIVIDUAL DETERMINATION)  Science and Engineering Academy	AVID 4 (ADVANCEMENT VIA INDIVIDUAL DETERMINATION)  Science and Engineering Academy

## SPECIAL PROGRAMS

**AVID (ADVANCEMENT VIA INDIVIDUAL DETERMINATION) 1, 2, 3, AND 4** - AVID is a rigorous college prep program for students in grades 9-12. This program is for highly motivated students with average and medium to high standardized test scores. Students apply for acceptance into AVID while in 8th grade. AVID students are placed in the AVID elective class instead of a Study Hall. In the AVID elective students learn strategies to enhance academic success. Students work collaboratively in tutor-led groups twice a week. Note-taking, writing, speaking, reading, and test-taking skills are strengthened through various strategies presented to the students. In addition, the course includes college motivational activities and family/community events. The AVID curriculum focuses on Writing, Inquiry, Collaboration, Organization and Reading (WICOR) through the AVID High School Libraries in both teacher and tutor led activities. In the junior year (AVID Elective 3) students begin to narrow their focus on potential college majors and schools of interest. Students interested in the applying to the AVID program should have a 2.0-3.5 GPA, no discipline problems, and good attendance. Students should also be dedicated to continuing their education at a four-year college or university after graduation. Interested students will be interviewed by the AVID selection committee during the early Spring-prior to the start of the course selection process. Once a student is selected and welcomed into the AVID program, he or she will be committed for all four years of their high school academic career. As part of the AVID curriculum at Edison High School, all AVID students will take AVID 1, 2, 3 and 4 in their freshman, sophomore, junior and senior years respectively. ONLY STUDENTS SCHEDULED TO ATTEND EHS MAY APPLY TO AVID.

**SCIENCE AND ENGINEERING ACADEMY (EHS)** - The Science and Engineering Academy is a highly competitive academic program designed for exceptional students interested in pursuing post-secondary study and careers in mathematics, engineering or the physical sciences. Students from across the District that meet eligibility criteria will apply for admission to the four-year program in November of 8<sup>th</sup> grade. Eligible students must be enrolled in a full-year **GEOMETRY (HONORS)** course in 8<sup>th</sup> grade and demonstrate honor roll achievement in all courses. A writing sample, teacher recommendations and the PSAT 8/9 are also part of the application process. Additionally, the admission screening committee may require a personal interview with the eligible candidates. There is a specific course sequence and requirements that SEA students must follow. *Students accepted into the SEA that would normally have attended JP Stevens will receive bussing to Edison High School and become full time EHS students, participating in EHS sports and other co-curricular programs.*

## SCIENCE AND ENGINEERING ACADEMY COURSES

**ENGINEERING INNOVATION (LEVEL 1)** - This is required for all freshmen in the Science and Engineering Academy. The Academy is designed to create a broad-based foundation for students who desire a career pathway in Electrical, Mechanical, Graphic or Civil Engineering. Areas of focus will include: design and problem solving, exploration of engineering fields, structures and mechanisms, power and energy systems, ergonomics, robotics, material sciences, green technology, maintenance, structural analysis, biotechnology and laboratory experiences.

The course includes a foundation component to introduce students to the engineering laboratory setting. Areas of focus will incorporate career pathways, historical engineering, and types of engineering, design and construction principles and a strong emphasis on problem solving. Following the foundation component will be specialized units in electrical, mechanical and civil engineering. The electrical engineering unit will explore the field of electrical and electronic engineering. Core components of this field will focus on electricity, electronics, circuitry and robotics. The unit in mechanical engineering will focus on mechanics, structures and mechanisms, material sciences, structural analysis and engineering graphics. The civil engineering unit will introduce students to the design, construction and maintenance of the physical and naturally build environment. Areas of focus are roads, bridges, canals, dams and buildings. This unit will include exploration of career pathways and the many sub-disciplines that fall under the Civil Engineering title. *This course is only open to students enrolled in The Science and Engineering Academy.*

**ENGINEERING GRAPHICS (HONORS)** - This course is required for sophomores in the Science and Engineering Academy. It will include advanced units in Electrical, Mechanical, Graphic and Civil Engineering. Students will have the opportunity to select the unit(s) that most interests them to conduct independent research projects. The course will further develop students problem solving skills and the tools needed to conduct scientific enquiry. *This course is only open to students enrolled in The Science and Engineering Academy.*

**ELECTRICAL ENGINEERING AND DESIGN (HONORS)** - The Electrical Engineering and Design course within the Science and Engineering Academy is designed to create a broad-based foundation for students who desire a career pathway in a variety of engineering fields. Candidates in the Electrical Engineering and Design course will explore responsible engineering positions in design, development, research, applications, and operation in the fields of communications, control systems, digital signal processing, robotics, digital and analog electronic circuits, physical electronics, computer-aided design and power systems. The curriculum is built around a strong basic core of mathematics, physics and engineering science.

Components of this course will give students a hands-on engineering laboratory and real world experience while exposing them to different concepts in Engineering. The content and methods of this course will provide a foundation for future engineering pathways and prerequisites for additional Science and Engineering Academy courses. Field trip experiences. *This course is only open to students enrolled in The Science and Engineering Academy.*

**SENIOR DESIGN AND CAPSTONE EXPERIENCE (HONORS)** - Students participate in a senior project to gain hands-on experience in applying engineering and science principles. Engineering students work on a real work engineering problem as part of their graduation recruitment from the Science and Engineering Academy. The students must conceive, design and implement the project; write the description; design brief; document the requirements; secure corporate and community support for the project; and present the final outcome of their work. The project simulates a real-world work environment in a variety of engineering and science fields. The students apply theory, think creatively and develop practical skills such as teamwork, professionalism and leadership. *This course is only open to students enrolled in The Science and Engineering Academy.*

## MIDDLESEX COUNTY COLLEGE HIGH SCHOOL SCHOLARS PROGRAM

High school students can earn college credit through Middlesex County College as part of MCC's High School Scholars program. This program allows students to either attend school on the MCC campus or to enroll in certain approved courses taught by Edison teachers within our high schools and receive concurrent credit.

**MCC Campus Option:** Our high school students can experience college work on a college campus while still in high school. They earn college credits that will appear on a Middlesex County College transcript and also receive credit towards their high school graduation requirements. A three (3) credit MCC course will satisfy 2.5 credits toward the 130 credits required for high school graduation. Students may take regularly scheduled classes during the Fall and Spring semesters. They must have completed any necessary prerequisites required with a grade of "C" or better. Courses are available in the late afternoon, evening and some even on Saturdays. Student will meet with his/her school counselor to review the Middlesex course schedule and choose the course in which he/she is interested. They must complete a registration form and Application for the High School Scholars Program. These must also be signed by the parent or legal guardian and the school counselor. High School Scholars pay \$155 for the first course each semester. Students and their parents must provide their own transportation. Parents sign an agreement acknowledging that their child is subject to all MCC rules and regulations. The grade the student receives for an MCC course will not be calculated into his/her GPA and is not factored into the class rank. Students may enroll in approved courses that satisfy Visual and Performing Arts and/or 21st Century Life and Careers. School counselors have a list of approved courses.

**EHS/JPS Campus Option:** Certain courses offered through the normal school day have been reviewed by MCC and designated as comparable to a college course. Students may elect to have the credits they receive for these courses earn both Edison credit and MCC credit. Students enrolled in these courses will be provided with applications in September. If they wish to take advantage of this opportunity, they must complete the application, pay the MCC fee (estimated to be \$125 in 2019 – 20) and maintain a "C" average in the class to receive concurrent credit. Students can take these courses and NOT participate in the MCC program. While the courses approved by the MCC varies each year, courses that have been approved in the past include:

### CLASSES FOR COLLEGE CREDIT

- Psychology
- Sociology
- Calculus 1 Accelerated
- Statistics Accelerated
- Pre-Calculus Accelerated
- Pre-Calculus Academic
- Integrated Math A Academic
- AP Biology
- AP Chemistry
- AP Physics 1
- AP Physics 2

## PLANNING YOUR PROGRAM

Name: \_\_\_\_\_

Homeroom: \_\_\_\_\_

### Graduation Requirements Student Checklist

Requirement		Grade 9	Grade 10	Grade 11	Grade 12
English	4 Years/20 credits				
Mathematics	4 Years/20 credits				
Science	3 Years/15 credits				
World History	1 Year/ 5 credits				
US History	2 Years/10 credits				
World Language	2 Years/10 credits				
Physical Education	Each year of enrollment				
Health (Driver Education – Grade 10)	Each year of enrollment				
21 <sup>st</sup> Century Life	5 Credits				
Visual and Performing Arts	5 Credits				
Economics/Financial Literacy	2.5 Credits				
Other Course	17.5 Credits				
<b>Credits</b>	<b>130</b>				