

**SPRINGFIELD BOARD OF EDUCATION**

**SPRINGFIELD, NEW JERSEY**

**JONATHAN DAYTON HIGH SCHOOL**

**PROGRAM OF STUDIES**

**2021 - 2022**

Approved: January 25, 2021

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NAME .....

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GRADE .....

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## **PROGRAM OF STUDIES**

The following information is designed to assist you in choosing your subjects for the years you will spend in high school. To a very large degree, your success, your pride of achievement and your own personal happiness will be determined by the course of action you decide to pursue. It is important for you to realize that, although much hard work in your present grade remains ahead of you, a number of decisions regarding next year's program must be made at this time.

The Springfield Public Schools attempts to provide you with a program of subject offerings that are sufficiently diversified in breadth and depth to meet your needs and interests. How wisely you choose your subjects from those available will no doubt influence your possibility of success.

Before making these important decisions, you should seriously reexamine your capabilities, goals and interests. Your previous and present school records are good indicators of your capabilities. Review your achievement in the subjects you have taken to date and apply this measure to your decision-making for the next year.

You should listen carefully to the suggestions and recommendations from your teachers, guidance counselor and parents. Each can be of assistance. For example, your teachers can supply you with information regarding the subject matter that will be covered in their particular fields, while your counselor can help you to relate this information to your goals and interests. Your parents will also play an important role in this process. It is they who should give final direction and approval to your program.

## GRADUATION REQUIREMENTS

All courses completed count toward graduation requirements. Certain required subjects must be included. Regardless of post-high school objectives, all students in the district are required to complete a core curriculum of academic courses that develop the skills and knowledge essential to all citizens.

Students are required to complete a minimum of 130 credits in order to graduate. In accordance with the State of New Jersey graduation requirements (N.J.A.C.6 A:8-5.1) and Springfield District High School Graduation Policy No. 5460, the requirements to attain a Jonathan Dayton High School diploma are as follows:

<b>COURSES</b>	<b>MINIMUM CREDITS</b>
English	20 credits
English 1/Writing & Research	5 credits
United States History	10 credits
Western Civilization (World History)	5 credits
Physical Education and Health	15 credits
Mathematics	20 credits
Laboratory Science (Biology, Chemistry, Physics)	18 credits
World Languages	10 credits
Economic and Financial Literacy	2.5 credits
Visual and Performing Arts	5 credits
21 <sup>st</sup> Century Life and Career/Practical Arts	5 credits
Additional Electives	14.5 credits

Students beginning in grade 9 are required to complete a minimum of 30 hours of community service and/or volunteer work each academic year. This requirement will be reviewed on an annual basis, and the Principal may modify the requirements, with the approval of the Superintendent. Please note that even if a student completes in excess of 30 hours in a given year, only 30 hours will count towards graduation requirement. Service hours will be reviewed quarterly with your child's assigned school counselor.

## NEW JERSEY'S GRADUATION REQUIREMENTS

### GRADUATION ASSESSMENT REQUIREMENT

All high school students are required to meet specific standardized assessment requirements, determined by the New Jersey Department of Education (NJDOE), in order to graduate. Alternative means for meeting this requirement may be specified in a classified student's Individualized Education Plan. Please refer to the NJDOE website for the most current graduation assessment requirements: <https://nj.gov/education/>.

## ATTENDANCE

New Jersey statute requires schools to be open for educational purposes for 180 days between July 1 and June 30. A ninety percent (90%) attendance rate is also required by the New Jersey Quality Single Accountability Continuum. Therefore, a pupil must be in attendance for 162 or more school days in order to meet the requirements of the instructional program of the grade/course to which he/she is assigned

Excessive absences (18 or more unexcused absences in a school year) may result in a negative effect on a student's grade and /or may impact the student's eligibility for promotion or graduation.

A waiver of these attendance requirements may be granted for good cause by the school principal upon recommendation of an attendance review committee, appointed by him/her, and consisting of representative staff, including pupil service personnel and classroom teachers.

In recommending the granting of a waiver of this attendance requirement, the review committee shall consider the nature and causes of all absences rather than only those in excess of the 18 days. Documentation of the nature and causes for these absences shall be the responsibility of the pupil and parent/guardian. (Attendance Policy No. 5200.)

## CREDITS

Credits are awarded for satisfactory completion of a course. Course credit is determined by the number of minutes that the course meets. For example, a course that meets 200 minutes per week for two semesters, carries 5 credits; a course that meets at least 240 minutes per week, carries 6 credits.

A final grade of F indicates failure, meaning that no credit is received and the student may not move on to the next sequential step in that subject area. Credit may be received by successfully repeating the failed course in an approved summer school or during the regular school year.

A student who fails a required subject is not permitted to register to take simultaneously both the failed subject as a repeat and an additional new advanced subject in the same subject area unless he/she obtains approval of his guidance counselor, the appropriate supervisor, and the principal.

## PREREQUISITES

Prerequisites are courses that must be completed satisfactorily before certain other courses are taken. For example, French 2 is a prerequisite for French 3; U.S. History to 1900 is a prerequisite for The Twentieth Century and Beyond.

## ELECTIVES

Electives are chosen in accordance with the student's aptitudes, future plans, and NJ state graduation requirements.

## **SUBJECTS TAKEN PRIOR TO GRADE 9**

Any courses taken prior to Grade 9 do not meet graduation credit requirements. State assessments associated with these courses may meet state testing requirements for graduation. Courses taken prior to Grade 9 may be counted as elective credit.

## **SUBJECTS TAKEN BY EXAMINATION**

A student who, by previous study or experience, believes he/she has successfully mastered the content, concepts and skills of a particular course, may request an examination in that course through the department supervisor. Successful completion of the exam will satisfy the prerequisite for the next higher-level course. However, no graduation credit may be earned by examination. Request must be in writing. Parent and student must sign the request and principal approval required.

## **INSUFFICIENT ENROLLMENT**

Any course for which there is insufficient enrollment will be canceled for the school year.

## **COMBINED CLASSES**

It is possible that two courses may be combined when enrollment is insufficient to operate one or both courses as separate sections. Combined classes sometimes occur in upper-level language classes (e.g., French 4 and 5) or some electives. Such combined classes are scheduled in an effort to allow students to complete a sequence of courses only when the combination is educationally sound.

## **NON-DISCRIMINATION**

Board of Education policy states that the assignment of students to subject areas is to follow all pertinent federal and state laws and regulations and such assignment will not be predicated on the basis of race, color, creed, religion, sex, ancestry, national origin, social or economic status or handicapping conditions.

## **PLEASE NOTE - CONFLICTS MAY ARISE**

At times, there will be scheduling conflicts, even when students and their parents choose courses wisely and appropriately. If two desired courses are scheduled for the same time period, it is possible that a choice will have to be made; i.e., both courses cannot be taken. This conflict may be experienced especially when enrolling in a course which meets only once during the school day. Therefore, students and parents should be alert to this possibility. Second or alternate choices should be selected carefully when planning a schedule of courses.

**STUDENT COURSE LOAD AND ADMINISTRATIVE GUIDELINES  
FOR SCHEDULE CHANGES**

1. All full-time students will pursue a minimum course load of seven classes each semester, preferably a minimum of five academic courses, one non-academic and physical education/health.
2. Students are expected to complete full-year courses. Students who drop a course, full-year or semester, are to select another available course during the same period of the course dropped.
3. Schedule changes in all courses must be requested within TEN (10) days of the start of the course.

## **PASS/FAIL OPTION**

The district-wide grading procedures permit a student to elect a Pass/Fail option within the following guidelines:

- The purpose of the Pass/Fail option is to encourage students to explore aspects of the curriculum in which they might be interested, but which they usually would not select to study. Pass/Fail option cannot be used for courses required for graduation.
- All Pass/Fail requests must be in writing to the guidance counselor no later than the end of the fourth week of the first marking period of the course. The written request must include a parent signature. Prior to electing a course for Pass/Fail, a student must discuss his/her plans with the guidance counselor and determine the impact of the Pass/Fail option on planned educational objectives and principal approval is required.
- If a student elects Pass/Fail in a full-year subject, three of the four marking periods must be passed; one of these three must be the last marking period. If a student elects Pass/Fail in a one-semester course, both marking periods must be passed. Students receive credit for Pass/Fail courses passed. (Note: A Pass/Fail grade is not included when a student's records are reviewed for the Honor Roll and the eligibility list for possible induction into the National Honor Society.)

## **INDEPENDENT STUDY**

A student may earn credit by means of Independent Study by developing a plan in consultation with his or her counselor and the appropriate faculty member. Final approval must be obtained from the building principal. Independent Study may be scheduled as a semester or full-year course. It must first be established that one of three circumstances makes Independent Study a viable option:

- The student has already pursued a subject to the limits of the high school curriculum. For instance, the student has already completed all five levels of a language offered in the district, and wishes to continue language study.
- The student is so advanced in a specific subject area that she or he already knows the content to be taught in the available courses, and can demonstrate this mastery through a rigorous assessment.
- The student is qualified to take a particular course, but cannot schedule it as a regular class. For instance, the student has an irreconcilable conflict between AP Physics and AP Computer Science, both of which are related to his or her future career plans.

Students interested in pursuing Independent Study should obtain more details from the Guidance Office.

All Independent Study students are assigned a mentor; however, students who enroll in these courses must demonstrate the ability to work with a minimum of teacher direction.

## **JDHS PROMOTION POLICY**

For a student to be promoted to the next grade level, he/she must earn the following credits:

- Sophomore Status = Minimum of 30 credits
- Junior Status = Minimum of 65 credits
- Senior Status = Minimum of 95 credits

Summer school recovery credits are included towards grade level advancement.

### GRADE POINT AVERAGE CALCULATION

GRADE	AP	HONORS	CP
A+	5.00	4.67	4.33
A	4.67	4.33	4.00
A-	4.33	4.00	3.67
B+	4.00	3.67	3.33
B	3.67	3.33	3.00
B-	3.33	3.00	2.67
C+	3.00	2.67	2.33
C	2.67	2.33	2.00
C-	2.33	2.00	1.67
D	1.67	1.33	1.00
F	0.00	0.00	0.00

AP - Advanced Placement Quality Points  
 Honors – Honors Quality Points  
 CP – College Prep (Regular Quality Points)

### CALCULATION OF THE UNWEIGHTED GPA

1. Basic Components:

- Credit value of each course:
- Final grade value for each course (see weighting of final grades above);  
and
- Total numbers of credits carried each year.

2. Course (See Calculation of Grade Point Average (GPA))

The grade point average is calculated by multiplying the credits by the quality point equivalent for each grade (see charts). The sum of the quality points is then divided by the sum of the attempted credits the unweighted GPA is calculated only using the regular quality point column. The weighted GPA is calculated using the weighted quality point chart for honors and AP courses. The unweighted and weighted GPA will be identical for students not taking any honors or AP courses.

### EXAMPLE OF UNWEIGHTED GPA

<u>Course</u>	<u>Grade</u>	<u>Quality Point Equivalent</u>		<u>Credits</u>	=	<u>Quality Points</u>
Honors Chemistry	B	3	X	6	=	18
Honors English	B-	2.67	X	5	=	13.35
Honors Algebra II	B-	2.67	X	5	=	13.35
World Language	A-	3.67	X	5	=	18.35
Honors US History	B	3	X	5	=	15
Vis. and Perf. Arts	A-	3.67	X	2.5	=	9.175
CTE	A	4	X	2.5	=	10
Health	A	4	X	1.25	=	5
Physical Education	B+	3.33	X	3.75	=	12.48
<b><u>Totals</u></b>				<b>36</b>		<b>114.705</b>

**114.705 DIVIDED BY 36 = 3.186**

### **CALCULATION OF THE WEIGHTED GPA**

#### 1. Basic Components:

- This is the measure of the difficulty of a course relative to standard or conventional high school courses. This measure takes into account both the difficulty of the subject matter and the difference in the amount of work expected from the students.
- **CREDIT VALUE OF EACH COURSE.** The total credit value of all courses taken will be used.
- **FINAL GRADE VALUE FOR EACH COURSE.** (See weighting of final grades above).

#### 2. Calculation of Grade Point Average (GPA)

The grade point average is calculated by multiplying the credits by the quality point equivalent for each grade (see charts). The sum of the quality points is then divided by the sum of the attempted credits. The unweighted GPA is calculated only using the regular quality point column. The weighted GPA is calculated using the weighted quality point chart for honors and AP course. The unweighted and weighted GPA will be identical for students not taking any honors or AP courses.

### EXAMPLE OF WEIGHTED GPA

<u>Course</u>	<u>Grade</u>	<u>Quality Point Equivalent</u>		<u>Credits</u>	<u>Quality Points</u>
Honors Chemistry	B	3.33	X	6	= 19.98
Honors English	B-	3.00	X	5	= 15.00
Honors Algebra II	B-	3.00	X	5	= 15.00
World Language	A-	3.67	X	5	= 18.35
Honors US History	B	3.33	X	5	= 16.65
Vis. and Perf. Arts	A-	3.67	X	2.5	= 9.175
CTE	A	4	X	2.5	= 10
Health	A	4	X	1.25	= 5
Physical Education	B+	3.33	X	3.75	= 12.48
<b><u>Totals</u></b>				<b>36</b>	<b>121.635</b>

**121.635 DIVIDED BY 36 = 3.378**

**The resulting grade point average rewards students for advanced placement and honors courses carried.**

### **CUMULATIVE GRADE POINT AVERAGE**

The cumulative grade point average is calculated by dividing the sum of the quality points for each year of attendance at Jonathan Dayton High School and the sum of the credits for each year of attendance at Jonathan Dayton High School.

### **CLASS RANK**

Jonathan Dayton High School does not publish rank but provides each student with a weighted and unweighted grade point average (GPA). In the calculation of each, all courses are taken, Grade 9 through Grade 12, are factored in.

GPA is considered when decisions are made for some scholarships and awards.

## **ACADEMIC RECOGNITIONS**

### **HONOR ROLL**

At the end of each marking period, students that meet the requisite course averages are recognized by being placed on the JDHS Honor Roll. Students that have an average of **90** or above, in all of their courses, are placed on the PRINCIPAL'S HONOR ROLL. Students that have an average of **82** or above, in all of their courses, are placed on the HONOR ROLL.

### **NATIONAL HONOR SOCIETY CONSIDERATION (JUNIOR AND SENIORS)**

All students with a weighted GPA of 3.7 or higher are invited to submit an application to the JDHS chapter of the National Honor Society. Applications are reviewed by the NHS Faculty Council. Students are notified as to whether or not they will be inducted.

### **JDHS ACADEMIC SCHOLARS OF DISTINCTION (SENIOR RECOGNITION)**

Each year, the two senior students with the highest GPA's are recognized as the JDHS Academic Scholars of Distinction. These students receive recognition from the Union County Superintendents' Association. They are also extended the opportunity to speak at commencement.

### **DISTINGUISHED SCHOLAR AWARD (SENIOR RECOGNITION)**

Each Year, the top 20 senior students, per GPA's, are recognized by the Springfield Lions Club as Distinguished Scholars.

## COURSE RECOMMENDATION PROCEDURES

1. Grouping is one way to provide differentiated learning experiences for students. Groups will vary in the learning tasks, instructional methods and pace. The degree of grouping will depend upon such factors as the nature of the offering, the number of students enrolled and the specific departmental application of grouping.
2. In grouping students, consideration will be given to:
  - a. Current academic achievement in a given subject and previous performance in related subjects.
  - b. Reading ability as measured by tests and from classroom observations.
  - c. Writing ability as measured by writing samples.
  - d. General scholastic ability as measured by test instruments and recorded on the student's test record card.
  - e. Work-study habits as well as motivation, effort, diligence, perseverance and maturity as noted by teachers.
3. The decision concerning a student's placement in any course is made by the professional staff using the above criteria. A student or his parent may initiate a request for placement in a specific group. Grouping practices should be flexible so that adjustments may be made when appropriate.
4. If a review of the recommendation and placement is necessary, each case will be considered individually.
5. It is the role of the high school guidance department to make adjustments in schedules based on individual needs and abilities of students.
6. If a student or parent initiates an override request for placement in a specific group, it is expected that the student will commit to staying in that group. Mid-year schedule changes may not be feasible, and may delay a student's progress towards graduation. The parent must indicate via email, or signed letter, that they understand this, in order for the override to be approved. The email or letter must be sent to the School Counselor where it will be kept on file. The request must be received by March 26<sup>th</sup>. Principal review and approval is required.
7. Groupings include:
  - a. **Advanced Placement (AP)\*** – college level courses taught following guidelines determined by the College Board.
  - b. **Honors (H)**-courses taught at an advanced level, for students who are prepared to undertake a greater degree of independent work, in greater depth, than the regular level.
  - c. **College Prep (CP)** – regular level courses.

\*Note regarding **Advanced Placement (AP)** examinations: Students in Advanced Placement courses must take the associated Advanced Placement Examination. The Advanced Placement Examination is paid for by the Springfield Board of Education. Families must reimburse the district for missed examinations. Students should contact their school counselor regarding any issues pertaining to their ability to take Advanced Placement Examinations.

## **ACCELERATED PROGRAMS AND SPECIAL PROGRAMS FOR JONATHAN DAYTON HIGH SCHOOL STUDENTS**

### **DAYTON COLLEGIATE ACADEMY**

Eighth graders interested in participation in a challenging accelerated learning environment will apply to Dayton Collegiate Academy. To add rigor to their schedules, the selected cohort of students will be enrolled in advanced placement courses starting their freshmen year. Additional opportunities include selection of advanced placement courses, academic contests and competitions, interest groups and clubs, as well as leadership activities. Students in DCA must maintain an **80% average** in their academic classes each semester.

#### **CORE COURSE REQUIREMENTS:**

- Freshmen: AP Art History, English 1 Honors, DCA Writing and Research, DCA Western Civilization Honors
- Sophomores: AP English Language
- Juniors: Minimum of (3) AP Courses of students' choice, one of which must be AP English Literature
- Seniors: DCA Senior Seminar

**DISTRIBUTION OF COURSE REQUIREMENTS:** During the student's four high school years, they will select a minimum of (8) AP Courses, including the AP Art History, AP English Language, AP English Literature, AP Statistics, and (4) more of their choosing in either the Humanities or the Math/Sciences

#### **DCA WESTERN CIVILIZATION HONORS (0113)**

**5.0**

Western Civilization traces the development of Europe from Ancient Greece to the demise of the USSR. Major themes for the course include cross-cultural connections, the arts as an expression of society, and the impact of geography on development. Development of social studies skills is an integral part of Western Civilization with a focus on gathering analysis, organizing information, and the writing of several types of essays. This course or Western Civilization is required for all freshmen and is a prerequisite for United States History to 1900. At the Honors level, students will read supplementary materials on a regular basis in addition to the textbook, and they will research primary sources. They will be expected to include critical thinking processes learned in previous courses and will examine extensive research resulting in written and oral reports. All students in the Honors level will complete one or more research papers, which seek to solve a historical problem.

#### **DCA ENGLISH 1/WRITING & RESEARCH (0042)**

**5.0**

The Dayton Collegiate Academy Writing and Research course is one of the most unique, challenging, and rewarding experiences offered at the high school. Because students are on an accelerated schedule and will be taking Advanced Placement Language and Composition as sophomores, this course essentially combines Freshmen Writing and Research with English II Honors. Therefore, the objectives will not only be to improve upon their formal essay writing and twenty-first century research skills, but to examine various pieces of canonized literature, as well. Students will be working with a number of themes that include, but are not limited to, the value of experience, loss of innocence, and living a life of consequence. Ultimately, through activities and assessments that include online discussion boards, research papers, and creating interactive web presentations. Goals include the en-

hancement of textual analysis abilities, the development of formal writing skills, and the utilization of source materials, when completing research.

### **SENIOR SEMINAR (0012)**

**5.0**

The Senior Seminar is designed for Dayton Collegiate Academy students who have completed two AP English courses prior to their senior year. Through the lens of Joseph Campbell's, *The Hero with a Thousand Faces*, students will explore the concept of the monomyth, or hero's journey, through four thematic units: The Undergraduate Experience, Authority and Rebellion, Societal Dialectics/Alterity and Creating Reality/Image Politics. Students will cohere their prior work for the Collegiate Academy into a formal portfolio for use in college applications, and build through the thematic units a command of critical theory both in literature and in film. Throughout the course, students will face rigorous writing tasks implementing multiple styles and structures, with emphases on precision, rhetorical design and establishing voice. A consistent focus throughout the course is the consideration of context by situating all work within the tensions of societal forces of culture and history. Students will ultimately use this course to establish their own monomyth, entering college as champions of their own intellectual development. This course carries Honor's weighting.

**Prerequisite:** Successful completion of AP English 3 and AP English 4, as well as participation in the Dayton Collegiate Academy.

## **DUAL CREDIT COURSES**

Dual credit programs provide students the opportunity to obtain high school credit, and college credit, simultaneously. Partner institutions charge a fee, per credit. Financial assistance may be provided by Springfield Public Schools. Students that may need assistance, should contact their school counselor.

### **Middle College Program at Fairleigh Dickinson University**

College credit is available to all high school students through the Middle College Program at Fairleigh Dickinson University. Currently, students enrolled in the courses listed below may receive three college credits, from Fairleigh Dickinson University, for each course. More information can be found at this link: <https://www.fdu.edu/academics/centers-institutes/petrocelli-center/middle-college/>. Interested students must inform their teacher and school counselor.

- 0325 Calculus
- 0346 Advanced Placement Computer Science A: Java
- 0123 Advanced Placement Art History
- 0732 Advanced Placement Studio Art
- 0726 Portfolio Studio Art
- 0307 Discrete Mathematics

Note: Fees and applications are sent directly to the university. All courses are taught by JDHS teachers, at JDHS.

### **Project Acceleration at Seton Hall University**

College credit is available to all high school students through Project Acceleration at Seton Hall University. Currently, students enrolled in the courses listed below may receive three college credits from Seton Hall University, for each course, for a fee. More information about this program can be found at the following link: <https://www.shu.edu/project-acceleration/index.cfm>. Interested students must inform their teacher and guidance counselor.

- 0238 Advanced Placement French 5
- 0214 Advanced Placement Spanish 5
- 0054 Advanced Placement English Language
- 0732 Advanced Placement Studio Art
- 0726 Portfolio Studio Art
- 0459 AP Biology

Note: Fees and applications are sent directly to the university. All courses are taught by JDHS teachers, at JDHS.

## **The Holocaust & Genocide Course (0148) at Kean University**

The Holocaust and Genocide course focuses attention upon the impact of people's inhumanity to other people throughout history and especially the examples of inhumane behavior displayed in Nazi Germany before and during World War II. The course provided in-depth examination of six major topics:

- The nature of human behavior
- Views of prejudice and genocide
- The rise of Nazism in Germany up to 1933
- The growth of persecution to the use of mass murder
- Resistance to Nazism and intervention
- The related issues of conscience and moral responsibility

This course will include a wide variety of activities and experiences for students of all ability levels. It is offered as a one semester elective for juniors and seniors.

Students must apply to Kean University, and pay a per-credit fee in order to receive college credit. The course is taught by a JDHS teacher, at JDHS. See the following link for Kean University contacts and information: <https://www.kean.edu/offices/holocaust-resource-center/high-school-dual-credit-course>.

## **SHARED TIME PROGRAMS**

### **Arts High School for Gifted and Talented Students @ Union County College (Sponsored by the Arts & Education Center)**

Students that are gifted in the areas of literary, performing and visual arts, can apply for the Arts High School program. This is a select program offered on a release-time basis. Interested students must complete an application and audition for admission. Accepted students will attend courses one afternoon per week, for fourteen weeks. All courses are taught at Union County College, and are facilitated by industry experts. The courses run from January to May. Transportation will be provided by Springfield Public Schools. Students in need of financial assistance should see their school counselor. Please see the information at the following link for program details and application procedures: <https://www.artsandedcenter.org>

Note: Students with science labs scheduled on release day may be precluded from participation in this program.

## **UNION COUNTY VOCATIONAL TECHNICAL HIGH SCHOOLS**

Union County Vocational Technical High Schools admit students on a shared-time basis in the junior or senior year. Additional information and a list of available programs are available from your counselor.

## SUCCESS FOUNDATIONS PROGRAM

The goal of the **Success Foundations Program** is to provide intensive and targeted transitional support for freshman students in the following areas:

- Adapting to high school academic expectations and demands
- Employing executive functioning strategies (planning/organization/decision making)
- Developing positive working relationships with teachers, support staff and peers
- Forming effective study skills and habits
- Creating an academic and co-curricular focus aligned with college and /or future careers

Support will be delivered to students through sessions designed around the following:

- ELA Support
- Math Support
- Advisory (Focus on Executive Function, Social Emotional Learning and Goal Setting)

Students that have been identified as in need of intensive support in the areas bulleted above will be assigned to an appropriate activity period session. The sessions will occur periodically, not to exceed two Activity Period sessions in a week. Session days, and duration of a student's assignment to a session, will be determined by building principal and teacher facilitator. All sessions will be facilitated by certified teaching and/or school counseling staff.

A recommendation from middle school and/or high school staff (I&RS team members, individual teachers) is needed. Students with identified need in the area of Academics (ELA & MATH), Executive Function and Social Emotional Learning (SEL), may be recommended to participate.

## SUBJECT LISTING

An Overall view of subjects offered is listed. Check the specific subject description for more detailed information. The weighting of each course is College Preparatory, Honors or Advanced Placement. See the “Calculation of GPA” on page 14 to review how weighting is applied to calculation and grade point average. Courses that have the determination of 21<sup>st</sup> Century Life and Career are designated with an asterisk (\*).

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>English</b>							
English 1 Literature		X				5.0	CP
English 1 Literature Honors	See Course Description	X				5.0	H
English 1 Writing/Research		X				5.0	CP
English 2			X			5.0	CP
English 2 Honors	See Course Description		X			5.0	H
English 3				X		5.0	CP
AP English Language	See Course Description			X		5.0	AP
English 4					X	5.0	CP
AP English Literature	See Course Description				X	5.0	AP
Creative Writing /Poetry			X	X	X	2.5	CP
Drama 1			X	X	X	2.5	CP
Journalism*			X	X	X	2.5	CP
Yearbook*			X	X	X	5.0	CP
Film as Literature				X	X	2.5	CP
Senior Seminar					X	5.0	H
<b>Social Studies</b>							
Western Civilization Honors	See Course Description	X				5.0	H
Western Civilization		X				5.0	CP
US History to 1900 Honors	See Course Description		X			5.0	H
US History to 1900	Western Civilization		X			5.0	CP
20th Century and Beyond	US History to 1900			X		5.0	CP
AP US History	See Course Description			X	X	5.0	AP
AP European History	See Course Description			X	X	5.0	AP
AP Amer. Government & Politics	See Course Description			X	X	5.0	AP

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>Social Studies (cont.)</b>							
AP Macro Economics*				X	X	5.0	AP
AP Psychology				X	X	5.0	AP
Psychology		X	X	X		2.5	CP
Sociology		X	X	X		2.5	CP
Holocaust/Genocide		X	X	X		2.5	CP
Diversity Studies				X	X	5.0	CP
Intro to Economics*		X	X	X		2.5	CP
Intro to Criminal Justice*		X	X	X		2.5	CP
Music and Modern History		X	X	X		2.5	CP
Contemporary Global Studies				X	X	2.5	CP
<b>World Languages</b>							
French 1		X	X	X	X	5.0	CP
French 2	French 1	X	X	X	X	5.0	CP
French 3	French 2		X	X	X	5.0	CP
French 4	French 3			X	X	5.0	H
AP French 5	French 4			X	X	5.0	AP
AP French 6				X	X	5.0	AP
Spanish 1		X	X	X	X	5.0	CP
Spanish 2	Spanish 1	X	X	X	X	5.0	CP
Spanish 3	Spanish 2		X	X	X	5.0	CP
Spanish 4	Spanish 3			X	X	5.0	H
AP Spanish 5	Spanish 4			X	X	5.0	AP
AP Spanish 6				X	X	5.0	AP
Italian 1		X	X	X	X	5.0	CP
Italian 2	Italian 1	X	X	X	X	5.0	CP
Italian 3	Italian 2		X	X	X	5.0	CP
Italian 4	Italian 3			X	X	5.0	CP
AP Italian 5	Italian 4			X	X	5.0	AP
English as a Second Language	For Non-English speaking Students	X	X	X	X	5.0	CP
Spanish for Native Speakers 1	See course description	X	X	X	X	5.0	CP
English for Native Language Speakers			X	X	X	5.0	CP

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>Mathematics</b>							
Algebra 1		X	X	X	X	5.0	CP
Geometry Honors	See Course Description	X	X	X	X	5.0	H
Geometry	Algebra 1	X	X	X	X	5.0	CP
Discrete Mathematics	Algebra or Pre-Calculus			X	X	5.0	CP
Algebra 2	See Course Description		X	X	X	5.0	CP
Algebra 2 Honors	See Course Description	X	X	X	X	5.0	H
Pre-Calculus	See Course Description		X	X	X	5.0	CP
Pre-Calculus Honors	See Course Description		X	X	X	5.0	H
AP Calculus (BC)	See Course Description			X	X	5.0	AP
Multivariable Calculus	AP Calculus (BC)				X	5.0	H
Calculus	See Course Description			X	X	5.0	H
AP Statistics	See Course Description			X	X	5.0	AP
Financial Algebra				X	X	5.0	CP
<b>STEM Education</b>							
Principles of Engineering*			X	X	X	5.0	CP
Introduction to Engineering*		X	X	X	X	5.0	CP
Introduction to JAVA*			X	X	X	2.5	CP
AP Comp Sci (A) JAVA*	Intro. To JAVA		X	X	X	5.0	AP
Advanced Comp Sci JAVA*	AP Comp Science (A)			X	X	5.0	H
AP Comp Sci Principles*			X	X	X	5.0	AP
<b>Science</b>							
Biology Honors	See Course Description	X	X	X	X	6.0	H
Biology		X	X	X	X	6.0	CP
Chemistry Honors	See Course Description		X	X	X	6.0	H
Chemistry	Algebra 2 or concurrent enrollment		X	X	X	6.0	CP
Physics	See Course Description			X	X	6.0	CP
Conceptual Physics	See Course Description		X	X	X	6.0	CP

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>Science (cont.)</b>							
AP Chemistry	See Course Description		X	X	X	6.0	AP
AP Physics	See Course Description			X	X	6.0	AP
AP Biology	See Course Description			X	X	6.0	AP
Oceanography*	Two years of Science			X	X	2.5	CP
Forensics*	Two years of Science			X	X	2.5	CP
Environmental Science	Two years of Science			X	X	2.5	CP
Human Anatomy and Physiology*	Biology and Chemistry			X	X	5.0	CP
<b>Business Education</b>							
Accounting 1*			X	X	X	2.5	CP
Personal Finance*			X	X	X	2.5	CP
Business Management*			X	X	X	2.5	CP
Business Law*			X	X	X	2.5	CP
Entrepreneurship*			X	X	X	2.5	CP
Springfield Leadership Program*				X	X	5.0	CP
Sports & Entertainment Marketing*			X	X	X	2.5	CP
<b>Visual, Performing and Practical Arts</b>							
Concert Band		X	X	X	X	5.0	CP
Chorale		X	X	X	X	4.0	CP
Strings Ensemble	Three years MS strings	X	X	X	X	5.0	CP
AP Music Theory	See Course Description			X	X	5.0	AP
Music Production Lab 1		X	X	X		2.5	CP
Music Production Lab 2	Music Production Lab 1	X	X	X		2.5	CP
Foundations/Studio Art		X	X	X		2.5	CP
Foundations/Crafts		X	X	X		2.5	CP
Ceramics & 3-D Forms		X	X	X		2.5	CP
Drawing/Painting	Foundations/Studio Art	X	X	X		2.5	CP
Open Studio/Expanded Media	Two Art Classes	X	X	X		2.5,5.0	H
Portfolio Studio Art	See Course Description	X	X			5.0	H
AP Studio Art	See Course Description			X	X	5.0	AP
AP Art History	See Course Description	X	X	X		5.0	AP
Introduction to Graphic Design*		X	X	X		2.5	CP

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>Visual, Performing and Practical Arts(cont.)</b>							
Introduction to Television*			X	X	X	2.5	CP
Advanced Television*	Introduction to TV		X	X	X	2.5	CP
Radio Programming and Production*			X	X	X	2.5	CP
TV Production Practicum*			X	X	X	2.5	CP
Introduction to Technical Theater*			X	X	X	2.5	CP
Intro Lighting & Sound Design*	Intro to Technical Theater		X	X	X	2.5	CP
Stagecraft & Set Design*	Intro to Technical Theater		X	X	X	2.5	CP
Black and White Photography			X	X	X	2.5	CP
Digital Photography			X	X	X	2.5	CP
Introduction to Dance			X	X	X	2.5	CP
Dance 1			X	X	X	2.5	CP
Dance 2	Dance 1		X	X	X	2.5	CP
Advanced Dance	Dance 2 or 3 years private dance experience		X	X	X	5.0	CP
Dance Fitness: Yoga			X	X	X	2.5	CP
<b>Career and Technical Education</b>							
Tomorrow's Teachers*				X	X	5.0	H
Bakeshop 1*			X	X	X	2.5	CP
Bakeshop 2*			X	X	X	2.5	CP
Foundations of Restaurant Management& Culinary Arts 1*			X	X	X	2.5	CP
Foundations of Restaurant Management& Culinary Arts 2*	Foundations of Restaurant Management&Culinary Arts 1		X	X	X	2.5	CP
Foundations of Restaurant Management& Culinary Arts 3*	Foundations of Restaurant Management&Culinary Arts 1,2			X	X	2.5	CP
Foundations of Restaurant Management& Culinary Arts 4*	Foundations of Restaurant Management&Culinary Arts 1,2,3			X	X	2.5	CP
American Regional Cuisine*			X	X	X	2.5	CP
Classic French and Italian Cuisine*			X	X	X	2.5	CP
International Cuisine*			X	X	X	2.5	CP

Department	Prerequisite	Offered Grade				Credits	Weighting
		9	10	11	12		
<b>Health/Physical Education</b>							
Health (required)		X	X	X	X	1.0,1.25	CP
Physical Education (required)		X	X	X	X	3.0,3.75	CP

## PROGRAM SELECTION

A typical program includes five academic subjects, physical education, and one non-academic subject each semester. Students who are scheduled for a 6-credit lab science are usually enrolled in 4-day physical education/health class, with a corresponding adjustment in credit and attendance requirements

### SAMPLE PROGRAM PATTERN

#### GRADE 9

Phys.Ed. & Health  
English 1 Literature  
Western Civilization  
Math  
Science  
World Language  
Writing/Research  
Lunch

#### GRADE 10

Phys.Ed. & Health  
English  
U.S. History to 1900  
Math  
Science  
World Language  
Electives\*  
Lunch

#### GRADE 11

Phys.Ed. & Health  
English  
Twentieth Century & Beyond  
or A.P. U.S. History  
Math  
Science  
Electives\*  
Lunch

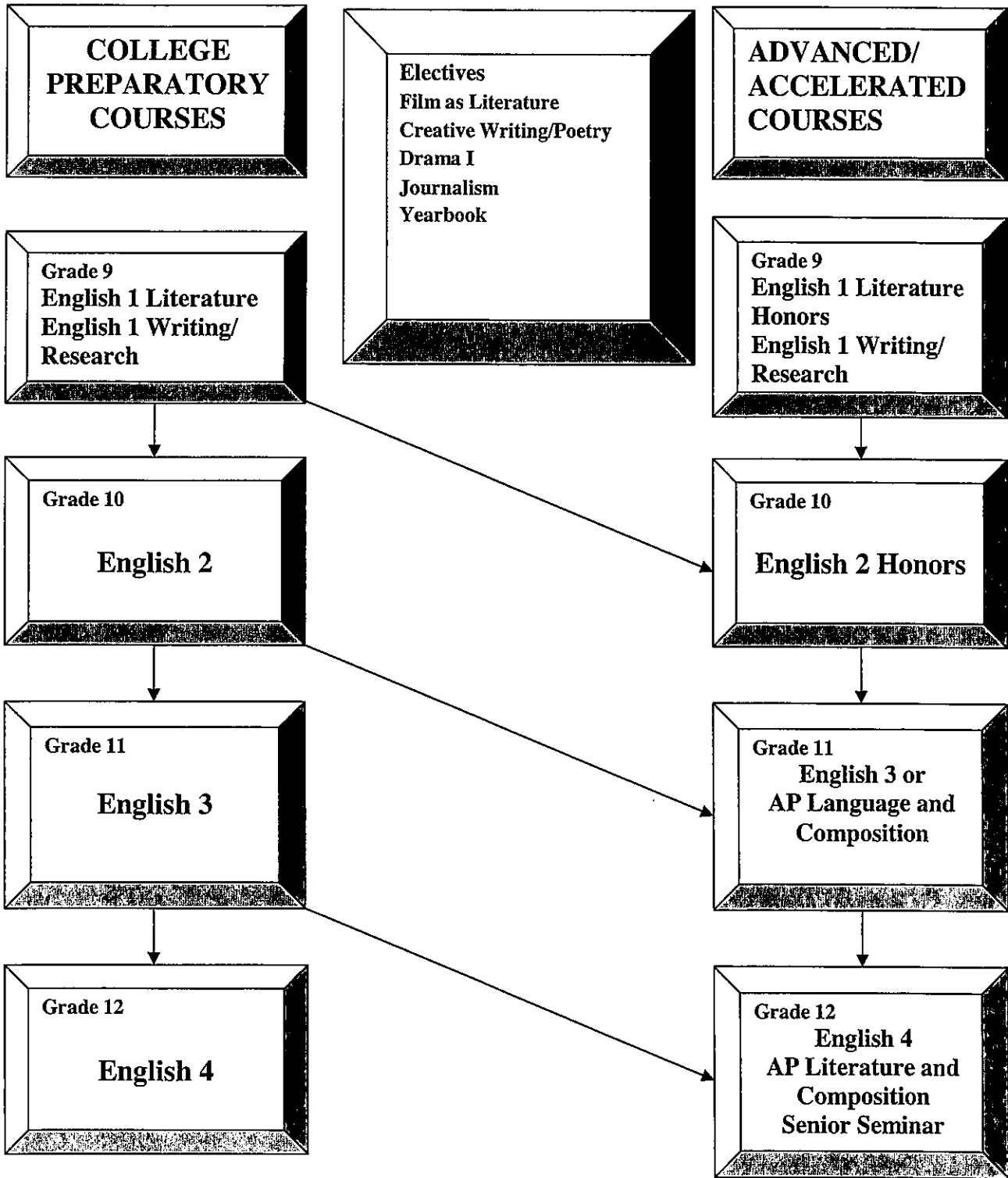
#### GRADE 12

Phys.Ed. & Health  
English  
Math  
Electives\*  
Lunch

\* All students will take at least four academic subjects each semester, plus non-academic electives.

Student programs should be designed with the assistance of the guidance department. Guidance counselors can advise students regarding modifications/appeals of standard course recommendations/selections.

# ENGLISH COURSE SEQUENCE



## **ENGLISH LANGUAGE ARTS COURSE DESCRIPTIONS**

Each student is required to take four years of English. Each of the courses is one year in length. Ninth grade students will take English 1 or English 1 Honors and Writing/Research. Students will earn a total of 10 credits for their English classes freshman year. Ordinarily English 2, 3, and 4 are taken in consecutive years, with students required to pass one year before proceeding to the next course. The principal's permission is required to take two years of required English concurrently. All English courses place heavy emphasis on a variety of writing styles. In addition to the required courses, a student may select English elective courses.

Students are required to read at least one assigned book over the summer, with titles selected by the teacher(s) of each specific course. In September, every student will be required to complete an assignment or activity based upon the summer reading.

### **ENGLISH 1 LITERATURE HONORS (0038) 5.0**

English 1 Honors is a required course for freshmen. There is an increased emphasis in this course on analytical examination of challenging literary and visual texts. Significant demands for independent study will be placed on the students. Formal and informal public speaking skills will also be emphasized throughout the year. Students in Honors sections will need to demonstrate their initiative in the study of mythology, Shakespeare, and a variety of fiction and non-fiction modes of writing. They will also be expected to contribute to the classroom dialogue on a daily basis. Students will also receive preparation for the ACT, PSAT, SAT, and NJSLA.

### **ENGLISH 1 LITERATURE (0036) 5.0**

English 1 builds on the students' previous experiences with the basic literary genres: mythology, drama, poetry, short story, novel, and various nonfiction modes. This required class is designed to give students in their first year of high school the opportunity to refine and develop their communication skills under the close supervision of the English teacher. There is an increased emphasis in this course on analytical examination of challenging literary and visual texts. Significant demands for independent study will be placed on the students.

### **ENGLISH 1 WRITING/RESEARCH (0037) 5.0**

This is a writing-based course that must be taken by all freshmen. The program is designed to provide students a foundation in all the communication arts, including preparation for all of the Language Arts Literacy Skills that will be assessed on all New Jersey Standardized Examinations. Formal public speaking experiences will be an important part of the curriculum. Preparation for taking the ACT, NJSLA, PSAT and SAT will also begin this year. Students will be introduced to the necessary skills and techniques for a research component of the curriculum. These will include: choosing a topic, narrowing the focus, selecting sources, gathering information, organizing ideas, and presenting a final product.

**ENGLISH 2 HONORS (0043)****5.0**

English 2 Honors is a course for sophomores who have exceptional proficiency in the skills areas measured during the freshmen year. Students in this course have already demonstrated a facility for the language and are able to articulate their thoughts in a logical and well-supported manner. There is a greater emphasis in English 2 Honors on analytical examination of challenging literary and visual texts. Significant demands for independent study will be placed on these students, and they will be expected to contribute to their own learning to a greater degree than previously expected. All students will be asked to demonstrate an ability to articulate their written and verbal skills in a logical and coherent fashion. During this year, students will be asked to focus on one particular genre under study and explore it in depth through a project or extended research assignment. They will also continue preparation for the ACT, PSAT, SAT, and NJSLA.

**Prerequisite:** English 1 Honors or English 1

**ENGLISH 2 (0044)****5.0**

This course completes the cycle of skill preparation before the student begins studies of American, English, and World Literature during the junior and senior years. Much of the curriculum will be devoted to reinforcing those skills measured on all New Jersey Standardized Examinations. Genre studies will be continued in greater depth. Students will refine their knowledge of literary terms and techniques, will work on critical thinking and analytical skills, and will practice speaking and listening skills. All students will be asked to demonstrate an ability to articulate their written and verbal thoughts in a logical and coherent fashion. ACT, NJSLA, PSAT and SAT preparation will continue.

**ADVANCED PLACEMENT ENGLISH 3 LANGUAGE AND COMPOSITION (0054)****5.0**

The course is designed to be a college level course; it is intentionally rigorous and should prepare students for the levels of intense, close readings and writing they will encounter in college. This course examines prose writing and looks at many different examples, through many different time periods; in order to prepare students to analyze the structure of writing for rhetorical strategies, author's purpose and desired audience, and overall effectiveness. Students should develop a greater understanding of the deliberateness of diction, syntax, rhetorical strategies, and the interrelatedness between these conventions and the overall intent of a written piece.

This is a dual credit course in conjunction with Project Acceleration at Seton Hall University. See the Dual Credit sections of the Program of Studies for more information.

**ENGLISH 3 (0053)****5.0**

English 3 is a writing-based junior English course that introduces students to the American literary heritage. A variety of poems, plays, short stories, essays and novels by American authors will be included. Students will examine the vast influences on and contributions of the American culture. Students will be expected to complete lengthier reading assignments and to embellish their learning with supplementary readings and literary criticism.

**ADVANCED PLACEMENT ENGLISH LITERATURE 4 (0031)****5.0**

Students enrolled in Advanced Placement English Literature will be expected, on a daily basis, to do college-level work. This class examines many of the most profound and demanding texts in American and World Literature. Some of the works studied intensively in this course include *Othello*, *Pride and Prejudice*, *1984*, *As I Lay Dying*, plays by Sophocles or Euripides, and selected short stories and poems from college-level texts. An important component of the curriculum is preparation for the Advanced Placement Examination in English Literature and Composition, which is given in the spring for the purpose of earning college credit or exemption from certain required college courses. Students will be asked to read and to write extensively and to exhibit a level of scholarship consistent with those who have dedicated their energies to academic pursuits. Small classes require consistent participation by all involved. Students should feel comfortable challenging the views of others in the classroom and having their own views challenged. Advanced Placement students must be motivated enough to explore topical issues with additional self-initiated readings and research, and they must be eager and willing to share their discoveries with others in the class. The focus is on individual growth and development with the teacher acting as the facilitator of learning.

Placement into this rigorous course is informed by teacher recommendations, prior classroom performance, demonstrated capacity for scholarly writing and analytical thinking, as well as standardized testing scores. If a student or parent initiates an override request for placement in this course against the judgment of the professional staff, the student will not be able to drop from that group moving forward, as it can affect the student's ability to be scheduled for the appropriate courses required for future success and graduation. The parent must indicate via email or signed letter that they understand this, for the override to be approved. The email or letter must be sent to the Guidance Counselor where it will be kept on file.

**ENGLISH 4 (0051)****5.0**

The senior English program, English 4, is an ethics-based analysis of English and World Literature, with a strong emphasis on the relationship between writing and thinking. Because it represents the conclusion of four years of study, this course is intended to permit the student greater latitude to explore areas of interest, to direct his/her own learning, and to work closely with the teacher and other fellow students.

## **ENGLISH LANGUAGE ARTS ELECTIVE COURSES**

The courses in this group are offered for students who wish to pursue their special interests in some depth. Although these courses do not count toward the four-year English requirement for graduation, they do carry credit as electives and can be used to meet the over-all graduation requirements. Unless otherwise noted, each course meets for one semester.

### **CREATIVE WRITING/POETRY (0056)**

**2.5**

This course is offered to all those who would like to explore their creative impulse. Although the course is designed as two nine-week workshops, the instructor and the students will be given the latitude to structure the class in other ways in order to promote personal growth and skill development. Students may work on poems, plays, essays, short stories, novellas, teleplays, screen-plays, librettos, etc. Quality efforts may be contributed to the school literary magazine for publication, or perhaps the class may create its own desktop publication. Students will also be asked to analyze the works of a variety of writers in order to appreciate more fully the subtle interplay between inspiration and hard work that is the foundation for great literature. Students will be expected to support others in their literary efforts and to share their own work with the class. This class is offered to grades ten, eleven, and twelve and may be repeated for credit.

### **DRAMA 1 (0060)**

**2.5**

The aim of this one semester course is to provide students with insight and practice on basic acting techniques, including pantomiming, improving stage voice, improvisation, and scene work. Students will be required to perform monologues and group scenes, improving on their public speaking skills. Additionally, students will study the history of theatre, from Ancient Greece to contemporary America, culminating in a research paper and presentation on a twentieth century artist of their choice.

### **JOURNALISM (0067)**

**2.5**

The emphasis in Journalism is on writing clearly and concisely for newspapers and radio. News writing, layout, advertising, feature and sports writing, and headline preparation are some of the areas covered. This is a one-semester course. Counts towards 21st Century Life and Careers.

### **YEARBOOK (0076)**

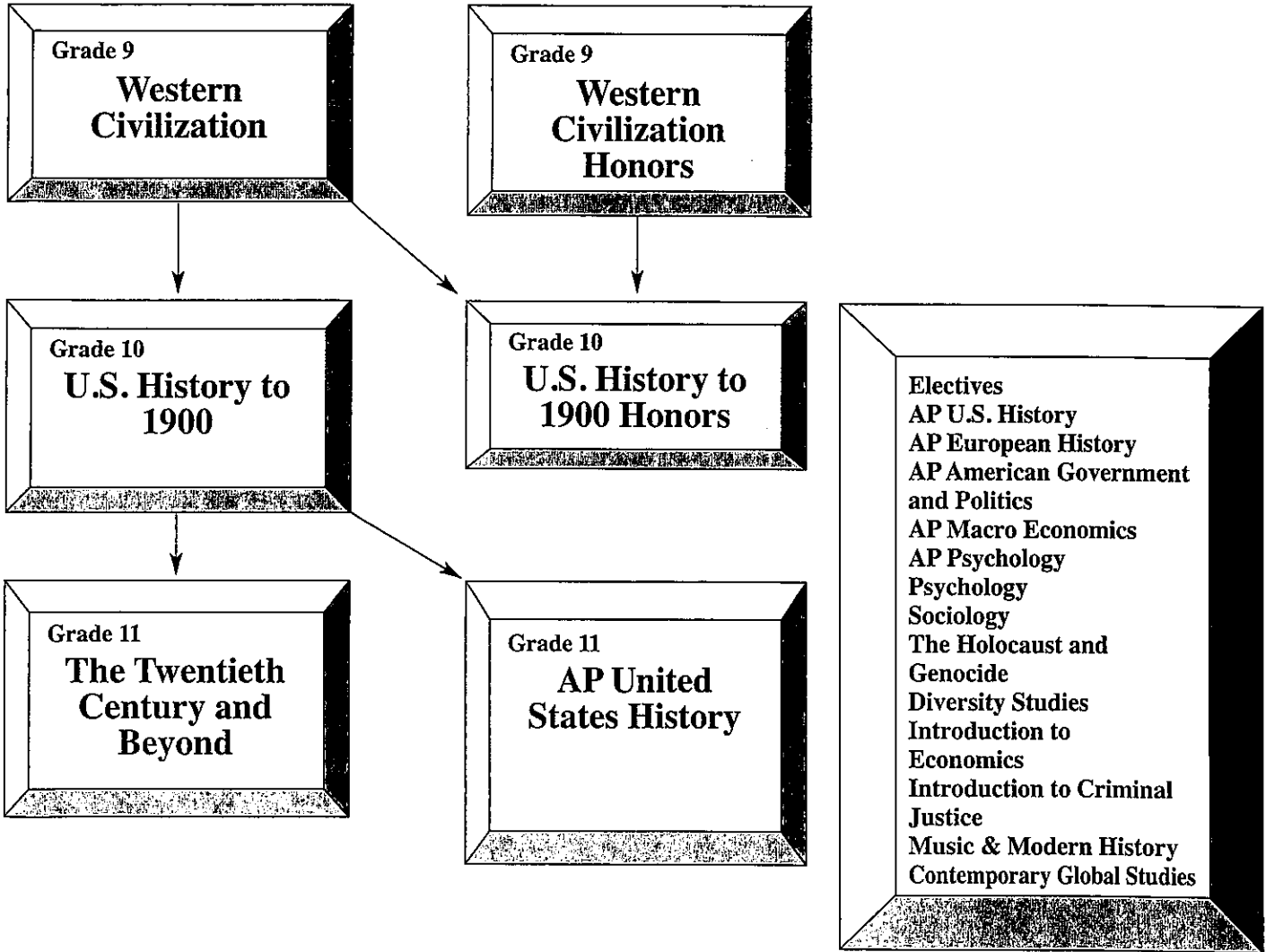
**5.0**

By the conclusion of this course, students will be familiar with publication law and develop an understanding of the fundamentals of layout, design, and journalistic writing in conjunction with the production of the yearbook. Students will also brainstorm and develop a theme for the yearbook and then plot out a ladder diagram indicating which topics will be covered on what pages. Students will use technology to develop and edit subject specific articles, design pages, upload photos and articles, develop captions for photos, create headlines and incorporate theme or topic specific graphics to correspond to the theme and to each topic page. Counts towards 21st Century Life and Careers.

**FILM AS LITERATURE (0064)****2.5**

Literature has been around for hundreds of years taking form in prose, poetry, and plays. In the past seventy-five years, the motion picture has emerged as another art form to enrich and to expand the understanding of people and history. This semester course gives the student the opportunity to become skilled at both literature and film studies. It also allows for comparing these two subject areas through the study of adaptations. The film part of the class covers theory and criticism of cinema from its formative years to the present. The literature part of the course covers a wide range of literary styles, genres, and forms. The content is largely historical and illustrates how film has commented on different aspects of literature and society. Students will read and view a wide spectrum of expressions from the 1930s through present day. Writing assignments, discussing novels, and viewing films in class are requirements of the course. This course is open to grades eleven and twelve.

SOCIAL STUDIES COURSE SEQUENCE



## SOCIAL STUDIES COURSE DESCRIPTIONS

### **Social Studies Requirements and Levels:**

All students are required to take a full year of Western Civilization, United States History to 1900, and The Twentieth Century and Beyond. However, Advanced Placement United States History may be substituted for the second-year requirement in United States History.

In each required social studies course, two levels are offered; Honors and College Prep. In Honors courses, students will use materials with a more difficult reading level, complete a greater number of complex papers and projects, and work more independently. They will also move at a faster pace.

### **WESTERN CIVILIZATION HONORS (0116)**

**5.0**

Western Civilization traces the development of Europe from Ancient Greece to the demise of the USSR. Major themes for the course include cross-cultural connections, the arts as an expression of society, and the impact of geography on development. Development of social studies skills is an integral part of Western Civilization with a focus on gathering analysis, organizing information, and the writing of several types of essays. This course or Western Civilization is required for all freshmen and is a prerequisite for United States History to 1900. At the Honors level, students will read supplementary materials on a regular basis in addition to the textbook, and they will research primary sources. They will be expected to include critical thinking processes learned in previous courses and will examine extensive research resulting in written and oral reports. All students in the Honors level will complete one or more research papers, which seek to solve a historical problem.

### **WESTERN CIVILIZATION (0117)**

**5.0**

Western Civilization traces the development of Europe, from Ancient Greece to the demise of the USSR. Major themes for the course include cross-cultural connections, the arts as an expression of society, and the impact of geography on development. This course, or Western Civilization Honors, is required for all freshmen and is a prerequisite for United States History to 1900.

### **UNITED STATES HISTORY TO 1900 HONORS (0106)**

**5.0**

United States History to 1900 is the study of American history from the settlement of North America by the Native Americans to the turn of the 20th century. The course follows chronological lines and is inclusive in content. Certain themes are emphasized including the multicultural character of the United States, geography as the factor in historical development and role of the United States in the world. The social studies skills, which were learned in Western Civilizations, will be reinforced in United States History. In addition, students will work on other skills such as interpretation of historical documents, problem solving and decision-making. The skills of research are a part of the course, and each student will be required to complete one or more research papers.

At the Honors level, students will read supplementary materials on a regular basis in addition to the textbook, and they will use primary sources. They will be expected to use critical thinking processes learned in previous courses and will do extensive research resulting in written and oral reports. All students in the Honors level will complete one or more term papers, which seek to solve a historical problem. In order to be placed in United States History to 1900 Honors, students must possess several indicators of probable success including self-motivation and capability of doing independent work.

### **UNITED STATES HISTORY TO 1900 (0107)**

**5.0**

United States History to 1900 is the study of American history from the settlement of North America by the Native Americans to the turn of the century. The course follows chronological lines and is inclusive in content. Certain themes are emphasized including the multicultural character of the United States, geography as a factor in historical development and the role of the United States in the world. The social studies skills, which were learned in Western Civilization will be reinforced in U.S. History. In addition, students will work on other skills such as interpretation of historical documents, problem solving and decision-making. The skills of research are a part of the course, and each student will be required to complete at least one research paper. This course or U.S. History to 1900 Honors is required of all sophomores and is a prerequisite of the Twentieth Century and Beyond courses.

### **TWENTIETH CENTURY AND BEYOND (0161)**

**5.0**

In the Twentieth Century America course, students study the twentieth century in a chronological frame of reference. The course emphasizes important themes and issues from the twentieth century to the present. Students maintain and extend skills previously learned, improve abilities to work cooperatively in groups and focus upon more complex thinking skills such as developing concepts and principles, generating meaning and doing independent research. They will use the textbook as a resource and read selections from several supplementary social studies books. They will use library resources several times during the year in order to prepare written and oral reports. Students will also complete a project that shows knowledge of subject matter and use of critical thinking skills. This course fulfills the required second year of U.S. history.

### **ADVANCED PLACEMENT UNITED STATES HISTORY (0120)**

**5.0**

This is a full-year college-level course. Outstanding events and trends in our national history are studied in depth by using a college level textbook and monographic material. Historical interpretation and wide knowledge of historiography are stressed along with a solid factual foundation. A further feature of the course is the writing of a number of essays, both knowledge-based and content-based. This course fulfills one year of the two year United States History requirement.

**ADVANCED PLACEMENT EUROPEAN HISTORY (0121)****5.0**

The Advanced Placement Seminar is a full-year college-level course. The emphasis is upon the general narrative of European History from 1450 to the present and includes the political, diplomatic, intellectual, cultural, social and economic history of Europe. The students develop the ability to distinguish trends, establish causes and recognize results. They discuss and analyze primary sources in studying historical events and improve their skills in reading and in oral and written expression. Any student who is currently enrolled in Advanced Placement United States History, will be accepted into Advanced Placement European History if he or she has maintained no less than a B average in Advanced Placement United States History, and has the recommendation of the Advanced Placement United States History teacher.

**ADVANCED PLACEMENT AMERICAN GOVERNMENT AND POLITICS (7125)****5.0**

This full year course will offer students an analytical perspective on government and politics in the United States. Students will examine the general concepts used to interpret American policies and apply them to specific examples from the past and today. Upon completion of the course, students will gain a familiarity with the various institutions, groups, beliefs, and ideas that constitute United States politics. Topics of study include constitutional analysis, political demographics, the balance between interest groups and policy, and the use of media in politics.

This course counts towards the U.S. history graduation requirement. DCA sophomores may enroll in this course.

Any student who is currently enrolled in Advanced Placement United States History will be accepted into Advanced Placement Government and Politics if he or she has maintained no less than a B average in Advanced Placement US History, and has the recommendation of the Advanced Placement United States History teacher.

**ADVANCED PLACEMENT MACRO ECONOMICS (0164)****5.0**

The purpose of the Advanced Placement course in Macro Economics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. Such a course places particular emphasis on the study of national income and price level determination and also develops students' familiarity with economic performance measure, the financial sector, stabilization policies, economic growth and international economics. The aim of the Advanced Placement Macro Economics course is to provide students with a learning experience equal to that acquired in a college introductory economics course. The class will be rigorous and academically challenging and will terminate with an Advanced Placement Examination. The class meets the graduation requirement for financial literacy, as of 2020-2021. Counts towards 21st Century Life and Careers.

**PSYCHOLOGY (0147)****2.5**

Psychology provides an introduction to the field of human behavior. The development of the individual is presented with regard to six specific units: Identity and Personality, Human Development, Learning and Motivation, Mental Processes, Abnormal Psychology, and the Structure of the Brain. Each unit encourages student involvement in psychological theories. For example: personality tests, conditioning demonstrations, mazes, self-evaluation, and experiments in creativity and perception might be included. This course is a semester elective for all juniors and seniors.

**ADVANCED PLACEMENT PSYCHOLOGY (0146)****5.0**

The purpose of Advanced Placement Psychology is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principals, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. The aim of this course is to provide a learning experience equivalent to that obtained in most college introductory psychology course. Counts towards 21st Century Life and Careers.

**SOCIOLOGY (0139)****2.5**

Sociology examines human behavior by emphasizing the social interactions of humans. The sociological approach is applied when examining five units: Introduction to Sociology, American Culture, Socialization, Social Mobility, and Social Change. Emphasis is placed on student involvement in field exercises in the community as well as classroom demonstrations and experiments. Evaluation of student performances is based upon class participation and involvement in course activities and exercises. This course is a semester elective for juniors and seniors.

**THE HOLOCAUST AND GENOCIDE (0148)****2.5**

The Holocaust and Genocide course focuses attention upon the impact of people's inhumanity to other people throughout history and especially the examples of inhumane behavior displayed in Nazi Germany before and during World War II. The course provides in-depth examination of six major topics:

- 1) The nature of human behavior
- 2) Views of prejudice and genocide
- 3) The rise of Nazism in Germany up to 1933
- 4) The growth of persecution to the use of mass murder
- 5) Resistance to Nazism and intervention
- 6) The related issues of conscience and moral responsibility.

This course will include a wide variety of activities and experiences for students of all ability levels. It is offered as a one semester elective for juniors and seniors. This is a dual credit course in conjunction with Kean University.

**INTRODUCTION TO ECONOMICS (0165)****2.5**

This semester elective introduces the concepts and tools of economic thinking. Students will learn to understand and evaluate the complex economic problems encountered in modern society including both microeconomics and macroeconomics. The course is designed to develop an understanding of how economic principles and analysis can be used to study social problems and issues. General theory and real-world applications will illuminate the economic functions of our society. Topics covered include basic concepts of workings of markets, supply, demand, fiscal and monetary policy, and governmental roles. Class discussions will focus on current personal, business, governmental, and contemporary economic issues and problems. Counts towards 21st Century Life and Careers.

**INTRODUCTION TO CRIMINAL JUSTICE (0167)****2.5**

This is a semester elective designed to introduce students to the criminal justice system. Topics covered include the state and federal courts, judges, lawyers, police, and the penal system. The juvenile justice system will also be examined. Attention will be paid to the special rules and procedures for handling cases dealing with those under the age of 18. Students will also be introduced to the system by which we classify crimes into the categories of petty offenses, misdemeanors, and felonies. Finally, students will be taken step-by step through the system of investigation and arrest through trial and sentencing. This class is open to sophomores, juniors and seniors. Counts towards 21st Century Life and Careers.

**MUSIC AND MODERN HISTORY (0168)****2.5**

Music and Modern History is a semester elective designed to allow students to examine musical forms and lyrics in the historical and cultural context in which they took place. Beginning with the early-to-mid 19th century, students will examine specific styles such as minstrel music, blues, jazz, swing, rock and roll, punk, heavy metal and hip hop. Students will investigate both the cultural conditions that brought about each style, and the changes that were stimulated by such music. In addition, particular topics will be explored in depth. These topics include but are not limited to patriotism, civil rights, women's rights, and the anti-war movement. The focus of this course will be on the United States, but will include some international topics such as Apartheid. This course is open to sophomores, juniors and seniors.

**DIVERSITY STUDIES (0159)****5.0**

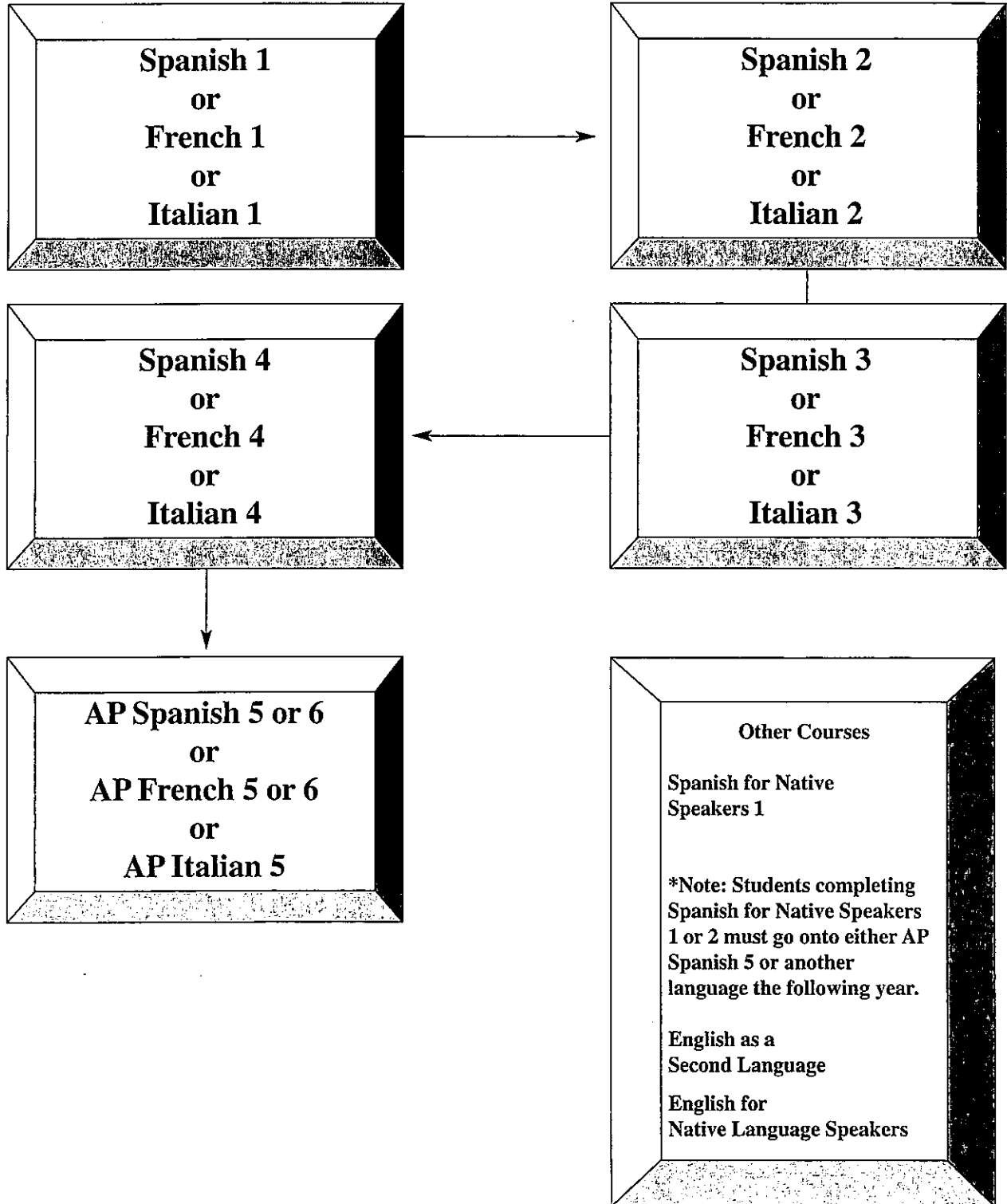
Students enrolled in this full year elective will analyze the history, culture and literature of some of the major ethnic groups and minorities who have contributed to American life. The groups will include, but not be limited to, African-Americans, Hispanic/Latino Americans, Native Americans, and Asian Americans. An examination of what constitutes a minority and some of the problems encountered by various minority groups will be studied. During the second semester, students will have the opportunity to research a group of their choice. This is an interdisciplinary course that may be taken by grades eleven and twelve.

**CONTEMPORARY GLOBAL STUDIES (H1041)****2.5**

This one-semester academic course offers an in-depth look at world history since 1989. This course is aimed at preparing students for 21st century society and leadership. This course will incorporate ideas that were touched on in Western Civilization, and ideas that are interconnected with other core and elective classes. Since 1989 the world has drastically changed with shifts in leadership, revolution in communication, as well as changes in world governments. Students will explore a wide range of important events from various regions throughout the world. Over the course of the class students will also examine and evaluate overarching themes including, but not limited to, United States foreign policy, international economics, social, political and religious conflict, as well as contemporary globalization.

**Prerequisites:** Western Civilization

# WORLD LANGUAGE COURSE SEQUENCE



## WORLD LANGUAGES COURSE DESCRIPTIONS

Several levels of World Language study are offered at JDHS. Students entering JDHS will be placed in the level commensurate with their language proficiency, as determined by academic record, or demonstrated language proficiency via assessment.

Level 1 World Language courses are available only to those students who intend to begin the study of a new language. For in district students, entering the high school as freshman, the Marking Period 3 average of their World Language course, their performance on the end of year 8<sup>th</sup> grade World Language assessment, and teacher recommendation are considered when determining placement.

### **SPANISH 1 (0202)**

**5.0**

This course focuses on the essentials of conversation and grammar. The concentration is on elementary current vocabulary and on the formation of simple sentences. The aim is to provide a foundation for pronunciation and develop the ability to understand, speak, read and write the language. Meaningful communication in the language will be stressed together with personal involvement and understanding. Culture will be taught as an integral part of the course. A variety of audiovisual aids will be used.

### **SPANISH 2 (0204)**

**5.0**

In this second year course, vocabulary and grammar learned in Spanish 1 will be reviewed and new constructions will be presented. The aim is to develop fluency in the spoken language, to continue to stimulate the student's interest in the civilization and culture of the countries studied, and to increase his/her ability to communicate with native speakers. A variety of audiovisual aids will be used.

**Prerequisite:** Spanish 1

### **SPANISH 3 (0207)**

**5.0**

Emphasis will continue on mastering the speaking skills through reading and discussing short selections on Hispanic life, customs, literature and career opportunities. Various videos, tapes, CDs and ancillary materials will be used. Short compositions, oral presentations and grammar will be included.

**Prerequisite:** Spanish 2

### **SPANISH 4 (0212)**

**5.0**

The teaching of all skills is emphasized. Various videos, tapes, CDs and ancillary materials will supplement grammar review; and active conversation will be based on individual oral presentations and class discussions. A wide variety of cultural readings are part of the course. This course carries Honors weighting.

**Prerequisite:** Spanish 3

### **ADVANCED PLACEMENT SPANISH 5 (0214)**

**5.0**

The Advanced Placement Course in Spanish language is designed to provide the well-motivated student with an intellectual challenge through advanced study of the language. It is intended for those who have chosen to develop their proficiency in Spanish without special emphasis on literature. The course is comparable in both content and difficulty to a full year college Spanish language course at a third year college level, such as Spanish Composition and Conversation.

Specifically, the course seeks to develop language skills that can be applied to various activities and disciplines rather than to the mastery of any specific subject matter. In addition, training in the organization and writing of compositions is provided and constitutes an integral part of the course. A variety of materials that include tapes, CDs, videos, internet, newspapers and magazines are used to enliven the presentations. The content of the course may also reflect intellectual interests shared by teacher and students alike.

**Students taking AP Spanish 5 are eligible to gain college credit at Seton Hall University through the college's "Project Acceleration". If the student does not attend Seton Hall University, the credits earned through this program may be transferred to other colleges.**

**Prerequisite:** Spanish 4

### **ADVANCED PLACEMENT SPANISH 6 (0215)**

**5.0**

This course prepares students for the Advanced Placement Examination in Spanish Literature. It follows the curriculum outline developed by the College Board.

The goals of this course are:

- To prepare students to understand a lecture in Spanish and to participate actively in discussion on literary topics in Spanish
- To perform a close reading of literary texts of all genres in Spanish; and
- To analyze critically the form and content of literary works (including poetry) orally and in writing using appropriate terminology. [source: College Board Course Description] In addition to the required authors, students will read other major Spanish writers.

**Prerequisite:** Advanced Placement Spanish 5

### **SPANISH FOR NATIVE SPEAKERS 1 (0216)**

**5.0**

This is a college preparatory introductory Spanish course for Spanish speaking students who are bilingual in English and have received little or no formal instruction in Spanish. In this first year course, emphasis is placed on the formal development of the four basic language skills of speaking, listening, reading, and writing. It includes reading development, basic grammatical concepts, written composition and vocabulary development. An appreciation of the culture, customs and history of Spanish speaking countries is provided. Upon successful completion of this course, students may go on to either Advanced Placement Spanish 5 the next year or another language.

**ITALIAN 1 (0249)****5.0**

This course focuses on the essentials of conversation and grammar. The aim is to provide a foundation for pronunciation and to develop the ability to understand, speak, read, and write the language. Meaningful communication in the language will be stressed together with a personal involvement and understanding. Culture will be taught as an integral part of the course. A variety of audiovisual aids will be used.

**ITALIAN 2 (0250)****5.0**

Grammar learned in Italian 1 will be reviewed and new constructions will be presented. The aim is to develop fluency in the spoken language, to continue to stimulate the student's interest in the civilization and culture of Italy, and to increase his/her ability to communicate with native speakers. A variety of audiovisual aids will be used.

**Prerequisite:** Italian 1

**ITALIAN 3 (0251)****5.0**

The purpose of this course is to continue to master speaking while developing the other skills. Short reading selections, newspaper and magazine articles will be used to study and to analyze Italian life, customs, and career opportunities. Multi-media resources will be used. Brief compositions, oral presentations, and a review of grammar will be included.

**Prerequisite:** Italian 2

**ITALIAN 4 (0253)****5.0**

The teaching of all skills will be emphasized through a study of literary works of Italian authors from the Renaissance to the 19th century. Current economic and political life in Italy will also be discussed through various sources. During the second semester, novels written by 20th century authors will be read and discussed, and their influence on the social, political, and economic life of the country will be analyzed. This course carries Honors weighting.

**Prerequisite:** Italian 3

**ADVANCED PLACEMENT ITALIAN 5 (0255)****5.0**

The Advanced Placement Italian Language and Cultures course is designed to provide the highly motivated student with an intellectual challenge through advanced study of the language. The course is comparable to a full year Italian Language course at a third year college level. The curriculum is designed to prepare students for the AP Italian Language Examination. Students in AP Italian 5 are required to take the AP Italian Language Exam.

**Prerequisite:** Italian 4

**FRENCH 1 (0229)****5.0**

This course focuses on the essentials of conversation and grammar. The aim is to provide a foundation for pronunciation and to develop the ability to understand, speak, read, and write the language. Meaningful communication in the language will be stressed together with a personal involvement and understanding. Culture will be taught as an integral part of the course. A variety of audiovisual aids will be used.

**FRENCH 2 (0231)****5.0**

Grammar learned in French 1 will be reviewed and new construction will be presented. The aim is to develop fluency in the spoken language and to continue to stimulate the student's interest in the civilization and culture of the countries studied, and to increase his/her ability to communicate with native speakers. A variety of audiovisual aids will be used.

**Prerequisite:** French 1

**FRENCH 3 (0233)****5.0**

Emphasis will continue to be on the speaking skill through reading and discussion of short selections on French life, customs, literature, and career opportunities. Extensive use of films and online activities will be made. Short compositions, oral presentations and a review of grammar will also be included.

**Prerequisite:** French 2

**FRENCH 4 (0236)****5.0**

This course is designed to continue developing and mastering understanding, listening, speaking, reading, and writing of the French language. Organized around high-interest contemporary topics, the course enables students to expand all of their language skills into a world of more complex ideas and relationships. Essential grammar points will be reviewed in reference to the readings. A variety of activities such as literary and expository texts, cartoons, advertisements, films, short stories, and poems will be read, discussed, and evaluated, both orally and in writing. This course carries Honors weighting.

**Prerequisite:** French 3

**ADVANCED PLACEMENT FRENCH 5 (0238)****5.0**

This course offers preparation for students who wish to take the Advanced Placement Examination in French Language. This course seeks to continue to develop the four language skills (listening, speaking, reading, and writing) and to use them in a highly functional way so that they can relate to real-life situations in the social cultural context of the French speaking world. All media will be provided to make the presentations challenging and stimulating. This course may be combined with French 4 if only a few students register for it. (See "Combined Classes.")

**Students taking AP French 5 are eligible to gain college credit at Seton Hall University through the college's "Project Acceleration." If the student does not attend Seton Hall University, the credits earned through this program may be transferred to other colleges.**

**Prerequisite:** French

**ADVANCED PLACEMENT FRENCH 6 (0239)****5.0**

This college level course offers preparation for students who wish to take the Advanced Placement Examination in French Literature. The course requires that students read and analyze French Literature orally and in writing in French. It is an in-depth study of works chosen in each genre: drama, prose and poetry. The course covers selected works from the literature of France and Francophone countries, from the sixteenth through the twentieth centuries. This is a dual credit course in conjunction with Project Acceleration at Seton Hall University.

**Prerequisite:** French 5

**ENGLISH AS A SECOND LANGUAGE (ESL) (0024, 0023, 0025)****5.0**

This program is required for students who are limited in English proficiency (LEP), as determined by test criteria established by the state. Primary emphasis will be on listening comprehension and oral communication. Reading and writing skills will also be developed. The department supervisor and guidance counselor can provide detailed information about this program.

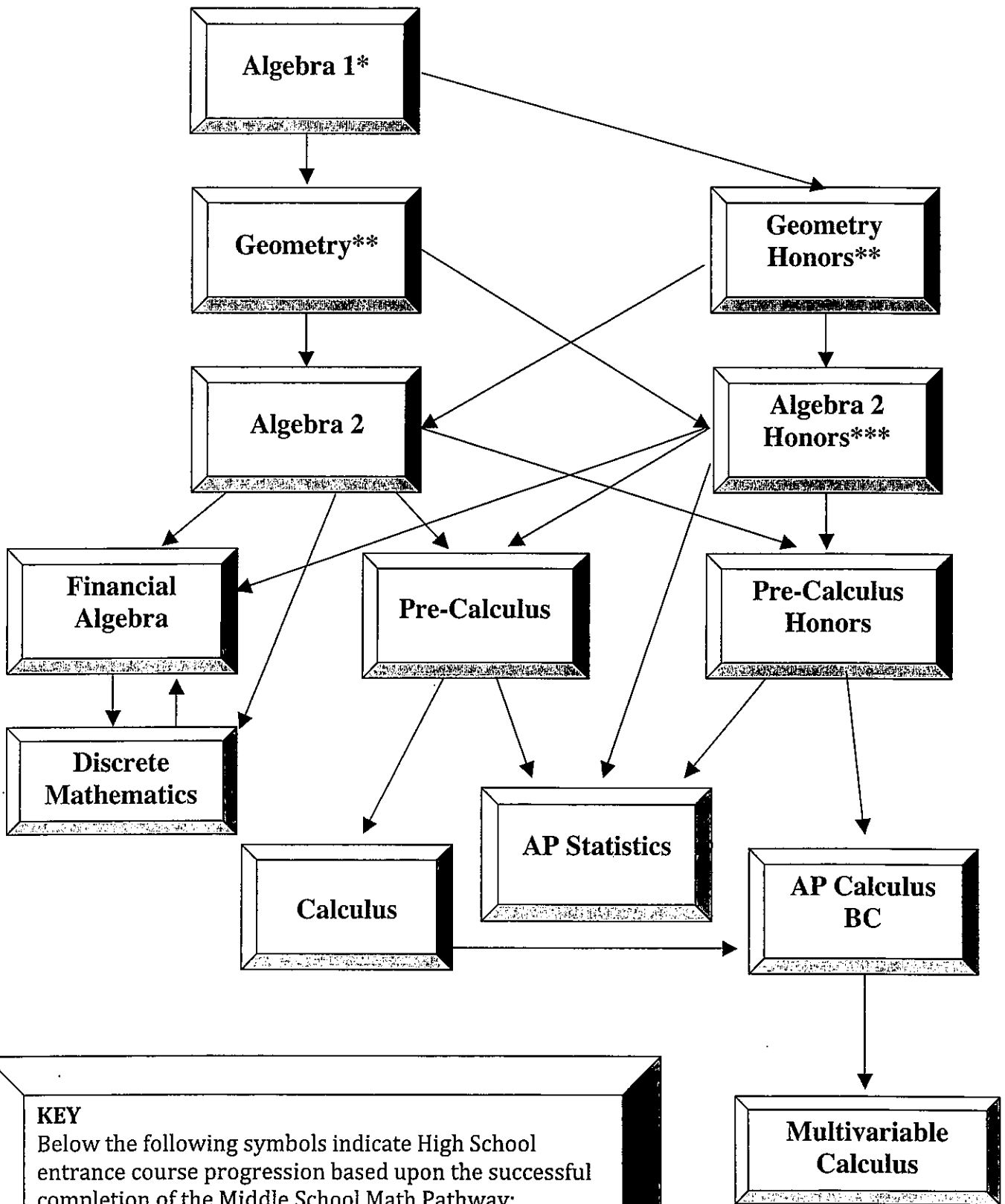
**ENGLISH FOR NATIVE LANGUAGE SPEAKERS (0263)****5.0**

The English for Native Language Speakers course focuses on building conversational proficiency in English for ELL students with limited exposure to the language. This course will focus on key language skills: listening, reading, writing, and speaking and will be modified to support individual learning styles. Students will utilize both Rosetta Stone and online resources as part of their learning tools while daily classroom instruction will be integrated throughout the course.

**SEAL OF BILITERACY**

The Seal of Biliteracy is an initiative that was started to acknowledge and award hardworking bilingual and multilingual students. By achieving the Seal of Biliteracy, students demonstrate that they are able to speak, read, listen and write in two or more languages at a high level of proficiency. Students, in level 4 or higher of World Languages, will have the opportunity to try to achieve this recognition upon graduation. In order for students to be eligible to receive the Seal of Biliteracy, they must meet certain criteria. Students must demonstrate a proficiency level in a World Language by taking a World Language assessment exam and students must demonstrate proficiency in English by meeting state high school graduation requirements in English or its alternatives, including the state ELA assessment. For those students that are enrolled in level 4 or higher of World Language courses, the district will provide the students with the STAMP assessment exam in the middle of the school year. Students that meet the criteria will receive a certificate from the Department of Education and have an appropriate insignia affixed to their transcript.

# MATHEMATICS COURSE SEQUENCE



**KEY**

Below the following symbols indicate High School entrance course progression based upon the successful completion of the Middle School Math Pathway:

- \* Math 6, Math 7, or Math 8
- \*\* Math 6, Pre-Algebra 7 or Algebra Grade 8
- \*\*\* Math 6, Algebra 7<sup>th</sup> Grade or Geometry Grade 8

## MATHEMATICS COURSE DESCRIPTIONS

Courses in Mathematics given on a semester basis will carry 2.5 graduation credits: courses given on a full-year basis will carry 5.0 credits.

### **ALGEBRA 1 (0308)**

**5.0**

Algebra 1 begins with a review of major topics that are covered prior to high school, including properties of real numbers, arithmetic involving fractions and positive and negative numbers and the concept of variables. Beyond these fundamental building blocks, Algebra 1 is an organized study of various families of functions and relations, with special emphasis on linear and quadratic functions. As students study each family of functions and relations, they will learn to represent them in multiple ways—as verbal descriptions, equations, inequalities, tables and graphs. An emphasis is placed on modeling real-world situations using functions in order to solve problems that arise from those situations.

### **GEOMETRY (0311)**

**5.0**

This course is structured around undefined terms, basic definitions, postulates and theorems. Topics include properties of angles and their measures, parallel and perpendicular lines, congruent triangles, similar polygons, right triangles, segments and angles associated with circles, areas of polygons and circles, surface areas and volumes of solids, the distance and midpoint formulas, parallel and perpendicular lines in the coordinate plane, the equations of a line, properties of quadrilaterals and mathematical modeling. Transformations, which include reflections, translations, and rotations, will be covered. Throughout the course, students are asked to apply geometric facts and reasoning to problem solving in real world situations.

**Prerequisite:** Algebra 1.

### **GEOMETRY HONORS (0312)**

**5.0**

This course includes the undefined terms, basic definitions, postulates and theorems of geometry. Topics include angles, parallel and perpendicular lines, congruent triangles, applications of congruent triangles, quadrilaterals, similar polygons, right triangles, circles, areas of polygons and circles, areas of volumes and solids, the coordinate plane, the distance and midpoint formulas, the slope of a line, lines in the coordinate plane, and the equation of a line. Algebra is integrated with the geometry concepts. Students will learn to use relationships, properties, and theorems to write proofs. They will use geometry computer programs to assist with understanding various topics such as reflections, translations, rotations and symmetry. They will be expected to work independently and in cooperative groups. All students enrolling in Geometry Honors must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Prerequisite:** Algebra 1

### **ALGEBRA 2 (0314)**

**5.0**

The Algebra 2 course topics include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.

**Prerequisite:** Geometry

**ALGEBRA 2 HONORS (0339)****5.0**

This course emphasizes four dimensions of understanding: skill in carrying out various algorithms, developing and using mathematical properties and relationships, applying mathematics in realistic situations, and representing or picturing mathematical concepts. A variety of topics are studied, including equations, linear and quadratic functions, systems of equations, exponential functions, conics, polynomials, logarithms, complex numbers, probability, sequences and series. Reading and problem solving are emphasized throughout. The graphing calculator is used to enhance instruction. Students are expected to work independently as well as in cooperative groups. All students enrolling in Algebra 2 Honors must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Prerequisite:** Geometry Honors

**PRE-CALCULUS (0359)****5.0**

The Pre-Calculus course combines the study of Trigonometry, Elementary Functions, Analytic Geometry, and Math Analysis topics as preparation for calculus. Topics include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

**Prerequisite:** Algebra 2

**PRE-CALCULUS HONORS (0352)****5.0**

This course is designed to prepare students for either AP or College Calculus the following year. Pre-Calculus Honors includes an intensive study of functions and their behavior (including limits), the theory and application of trigonometric functions, polar coordinates, exponential functions, logarithmic functions, logistic functions, parametric equations, conics, series and sequences, data analysis and curve fitting. The final month of the course explores two elementary topics in calculus limits and derivatives. The emphasis of the course is applications, problem solving, reasoning, and communication. The graphing calculator is frequently used to enhance instruction. Students will be expected to work independently as well as in cooperative groups. All students enrolling in Pre-Calculus Honors must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Prerequisite:** Algebra 2 Honors

**FINANCIAL ALGEBRA (0370)****5.0**

This course affords students the tools and skills necessary to understand concepts used in daily living. Topics will include; consumer credit, employment basics, modeling a business, the stock market, independent living, income taxes, planning for retirement, and banking services. The mathematics concepts will include algebra, functions, exponential functions, limits, linear regression, graphing, probability and statistics, and spreadsheets. Emphasis will be placed on real life problem solving skills.

**Prerequisite:** Algebra 2

**DISCRETE MATHEMATICS (0307)****5.0**

Discrete Mathematics is the study of concepts that are based upon finite possibilities. The aim of this course is to provide students with foundational knowledge in discrete mathematics. Topics include graph theory, election theory, counting techniques, descriptive statistics and probability. This course will be application based and project centered. This course is intended for students who will pursue a major in liberal arts.

**Students may take this course for college credit through the Fairleigh Dickinson University Middle College Program. There is an associated cost to enroll students in the program.**

**Prerequisite:** Algebra 2, Pre-Calculus, or Financial Algebra

**CALCULUS (0325)****5.0**

This course is equivalent to a first semester college course examining differential and integral calculus. Included is a study of limits, continuity, derivatives, differentials and their applications, integration, areas, the Fundamental Theorem of the Integral Calculus, methods of integration and applications, and the Calculus of transcendental functions (exponential, logarithmic, and trigonometric). The importance of Calculus as a tool for problem solving is emphasized. The computer and/or graphing calculator are used to enhance instruction.

**Students may take this course for college credit through the Fairleigh Dickinson University Middle College Program. There is an associated cost to enroll students in the program.**

**Prerequisite:** B in Pre-Calculus or teacher recommendation.

**ADVANCED PLACEMENT CALCULUS (BC) (0321)****5.0**

The course examines differential and integral calculus. A broad range of topics is covered with great depth and rigor. Included is a study of functions, limits, continuity, derivatives, separable differential equations, integration, rate of change, area and volume, the Fundamental Theorem of the Calculus, methods of integration, and the Calculus of transcendental functions (exponential, logarithmic, and trigonometric). Additional topics include: parametric, polar and vector functions, applications of derivatives and integrals, and polynomial approximations and series. The importance of Calculus as a tool for problem solving is emphasized. The graphing calculator is used to enhance instruction. Students are provided with practice for the Advanced Placement Test of the College Entrance Examination Board. All students enrolling in AP Calculus BC will be required to satisfactorily complete a summer work packet that will be evaluated at the beginning of the AP course. This course is equivalent to two semesters of college-level Calculus.

**Prerequisite** Pre-Calculus Honors or Calculus

**MULTIVARIABLE CALCULUS (H0380)****5.0**

This course studies scalar valued functions of several variables. It begins with the study of vector geometry, equations of lines and planes, and space curves (velocity, acceleration, arc length). The rest of the course is devoted to studying differential calculus of functions of several variables. Topics include limits and continuity, partial derivatives, tangent planes and differentials, the Chain Rule, directional derivatives and applications, and optimization problems including the use of Lagrange multipliers. It continues with multiple integration, vector fields, line integrals, and finishes with a study of Green's and Stokes' theorems. This course carries Honors weighting.

**Prerequisite:** AP Calculus BC

**ADVANCED PLACEMENT STATISTICS (0341)****5.0**

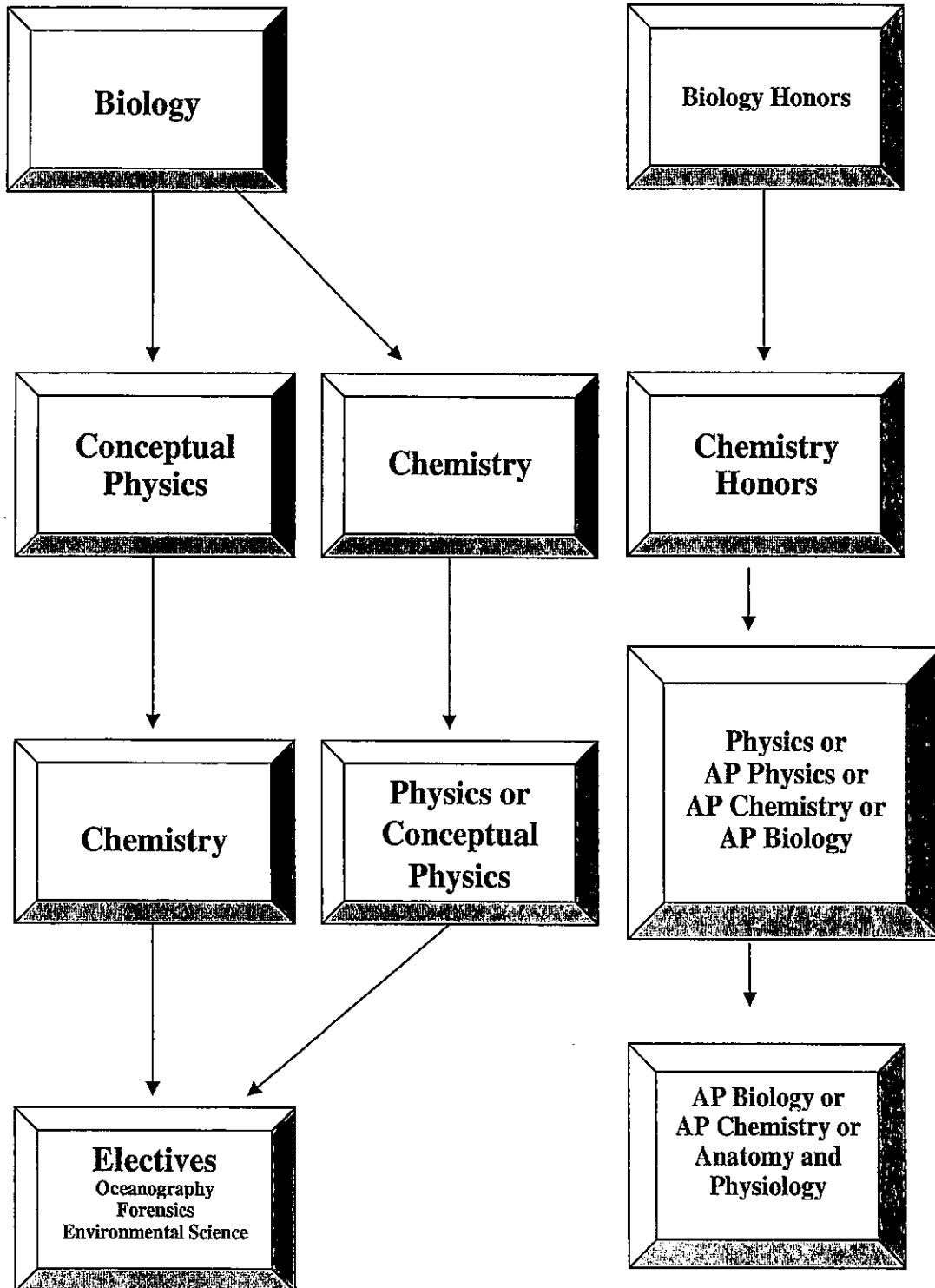
The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

- Exploring Data: Describing patterns and departures from patterns
- Sampling and Experimentation: Planning and conducting a study
- Anticipating Patterns: Exploring random phenomena using probability and simulation
- Statistical Inference: Estimating population parameters and testing hypotheses

The importance of Statistics as a tool for problem solving and analysis is emphasized. The graphing calculator and statistical software are essential components of the course and instructional methods. Students are provided with practice for the Advanced Placement Test of the College Entrance Examination Board. This course is equivalent to one semester of college-level Statistics.

**Prerequisite:** Algebra 2 Honors or Pre-calculus

# SCIENCE COURSE SEQUENCE



## SCIENCE COURSE DESCRIPTIONS

All core science courses, including Advanced Placement courses, given on a full-year basis will carry 6.0 graduation credits and meet 6 periods a week, including one day per week of double-lab period. Science elective courses given on a semester basis will carry 2.5 credits, except Human Anatomy and Physiology, which will carry 5.0 credits. Three of the required full year lab courses must be in the core areas of Biology, Chemistry and Physics.

### **BIOLOGY HONORS (0442)**

**6.0**

This is a more rigorous approach to the study of living things than Biology (described below). Emphasis will be on biochemistry, molecular biology, genetics, ecology, and the unifying concepts applicable to all life forms. In addition, the study of the diversity and function of organisms will be undertaken. Laboratory work will involve living and preserved materials as well as chemical materials and scientific instruments. Comprehensive lab reports will be required.

### **BIOLOGY (0460)**

**6.0**

This is a full-year course about living things, their diversity, and how they function. It is for the student who wants a general knowledge of the living world. It includes discussion of many of the important concepts of modern biology, including biochemistry, cell structure and function, genetics, molecular biology, and ecology. Hands-on laboratory work is an important part of this course offering.

### **CHEMISTRY HONORS (0445)**

**6.0**

This is a full-year course in chemistry for the science-oriented college-bound student. It includes a study of the composition of matter, its properties, and how matter undergoes change and interacts with other kinds of matter. The unifying principles of the subject are developed in a logical way with extensive laboratory work, during which the student will handle various chemical materials and scientific instruments, providing a basis for this development. This offering involves a rigorous mathematical approach. Therefore, successful completion of Algebra 1 and Geometry is required.

This course also emphasizes higher-order thinking skills and advanced reading comprehension. Comprehensive lab reports will be required for laboratory activities.

**Prerequisite:** Algebra 2 completed or taken concurrently

### **CHEMISTRY (0462)**

**6.0**

This is a comprehensive full-year course in chemistry. It includes a study of matter, its composition, properties, and interactions as described by modern chemical theories, and a discussion of how these principles apply to contemporary issues. While primarily intended for the non-science college-bound student, the treatment is sufficiently theoretical and mathematical to meet the needs of students who later choose to enter a science career. Laboratory work, in which the student handles chemical materials and scientific instruments, supplemented by teacher lecture and demonstrations, constitutes an important part of this course.

**Prerequisite:** Biology. Algebra 2 or Algebra 2 Honors completed or taken concurrently.

**ENVIRONMENTAL SCIENCE (0423)****2.5**

Environmental Science is a one-semester elective course that studies the interaction between living things and the environment, especially the impact that humans have on these components. Students will study the concepts and methods used to determine the complicated interactions present in nature and identify several important environmental problems and how they impact humans and other organisms. The course focuses on several topics, including an examination of different ecosystems, water quality and air pollution, finite mineral and energy resources, conservation, and how humans directly affect the environment. Counts towards 21st Century Life and Careers.

**Prerequisite:** Successful completion of Biology, Chemistry and Physics is required.

**HUMAN ANATOMY AND PHYSIOLOGY (0401)****5.0**

Human Anatomy and Physiology is a full year course available to grades eleven and twelve and is recommended for students that may be considering a career in a health-related field. The course will be a rigorous study of human body systems with emphasis on anatomical identification, physiological functions and diseases. Each system will be studied in detail and laboratory experiences will be designed to enhance understanding of the system. Labs will involve the detailed microscope study of cells and tissues, including pathology. Physiological function will be related to anatomical structures throughout the course. Some dissection of animal systems will be included to enhance students' knowledge. Technology in the form of software, Internet resources and mobile laptops will be an integral part of the course. Career opportunities will be explored through field trips, speakers, and visits to local university lectures. Counts towards 21st Century Life and Careers.

**Prerequisite:** Successful completion of Biology, Chemistry and Physics is required.

**FORENSICS (0444)****2.5**

Forensic science is the application of science to issues of law. The course will be primarily laboratory based, with students expected to use knowledge from biology, mathematics, and the physical sciences to analyze evidence from crime scenes. The course should offer students the opportunity to utilize critical thinking skills developed in their previous science and mathematics courses, and apply those skills to interesting real-world situations. Students will use a variety of materials that show them how the analysis of various materials (hair, paint, drugs, etc.), insect analysis, blood analysis, DNA evidence, and toxicology studies all help to solve crimes. Students will be expected to work together to analyze, solve, and communicate their findings to the rest of the class. This will be a semester elective course, meeting for 5 periods a week for one semester, 2.5 credits. Counts towards 21st Century Life and Careers.

**Prerequisite:** Successful completion of Biology, Chemistry and Physics is required.

**OCEANOGRAPHY (0419)****2.5**

Oceanography is a semester course that studies the phenomena of the oceans. It is intended to be an introduction to the physical, geological, chemical, and biological aspects of the greater portion of our earth's surface. Course requirements include a field trip to a local shore area, as well as some laboratory work. Counts towards 21st Century Life and Careers.

**Prerequisite:** Two years of science.

**CONCEPTUAL PHYSICS (0467)****6.0**

This is a comprehensive full year course that covers the central concepts of physics. Using basic computational skills, students are introduced to important fundamental topics such as kinematics, the laws of motion, work and energy, momentum, universal gravitation, thermodynamics, light and sound waves, and electricity and magnetism. By treating physics conceptually, these topics are presented in everyday language, with equations used to guide thinking. Experimentation and student observation are used to introduce and demonstrate concepts; whenever possible the connections between physics concepts and everyday life will be emphasized. Using information from their textbook, hands-on laboratory activities, demonstration, and experiences in their own lives, students will gain a better understanding of the world around them.

**Prerequisite:** Biology.

**PHYSICS (0465)****6.0**

This is a full-year course designed to offer students an introduction to the basis upon which scientists make mathematical descriptions of systems as they appear in nature. Laboratory work and problem-solving techniques are stressed. Students should have had thorough preparation in mathematics prior to entry into this course. The methods and theorems of algebra and geometry are used in problem solving. An understanding of simple trigonometric principles is required, either from a Geometry or Pre-Calculus course.

**Prerequisite:** Chemistry

**ADVANCED PLACEMENT PHYSICS 1 (0463)****6.0**

This full-year course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics; work, energy, and power; mechanical waves and sound; and introductory simple circuits. Through inquiry-based learning, students will develop critical thinking and reasoning skills. The course will meet for 6 periods per week, with one double-lab period. All students enrolling in AP Physics must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Prerequisite:** All AP Physics 1 candidates must have completed high school courses in Biology, Chemistry, Geometry and Algebra 2. It is strongly recommended to have completed Pre-Calculus or Physics (0465).

### **ADVANCED PLACEMENT CHEMISTRY (0461)**

**6 .0**

This full-year, laboratory course provides students with a foundation to support future advanced course work in chemistry. Through inquiry-based learning, students develop critical thinking and reasoning skills. Students acquire an understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. The course will meet 6 periods per week, with one double-lab period.

The program is designed to prepare students to take the AP Chemistry Examination. All students enrolling in AP Chemistry must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Prerequisite:** All AP Chemistry candidates must have successfully completed Biology Honors or a general high school chemistry course, and Algebra 2.

### **ADVANCED PLACEMENT BIOLOGY (0459)**

**6 .0**

The Advanced Placement Biology course is an introductory college-level biology course. Students develop an 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. After showing themselves to be qualified on the Advanced Placement Examination, some students, as college freshmen, are permitted to undertake upper-level courses in biology or register for courses for which biology is a prerequisite. Other students may have fulfilled a basic requirement of a laboratory-science course and will be able to undertake other courses to pursue their major.

The AP Biology course differs significantly from the usual first high school course in biology with respect to the kind of textbook used, the range and depth of topics covered, the kind of laboratory work done by students, and the time and effort required of students. All students enrolling in AP Biology must satisfactorily complete a summer assignment prior to the beginning of the school year.

**Students taking AP Biology are eligible to gain college credit at Seton Hall University through the college's "Project Acceleration." If the student does not attend Seton Hall University, the credits earned through this program may be transferred to other colleges. There is an associated cost to enroll students in the program.**

**Prerequisite:** All AP Biology candidates must have completed high school courses in biology and chemistry.

**STEM  
SCIENCE, TECHNOLOGY, ENGINEERING AND MATH  
COURSE SELECTIONS**


**PRINCIPLES OF ENGINEERING (H0485)-\*PROJECT LEAD THE WAY 5.0**

This full year course offers an introduction to engineering concepts by utilizing the engineering design process to solve problems by applying static principles to bridges, using electronic component concepts like circuit board logic gates, using CAD software, applying environmental and ethical principles, and monitoring efficiencies while reducing externalities. Students who take this course should have a strong interest in one or more fields of engineering. This course will allow students to realize the links between history, ethics, science, writing, and economics. Counts towards 21st Century Life and Careers.

**Prerequisite:** Physics should either be completed or taken concurrently and teacher recommendation.

**INTRODUCTION TO ENGINEERING DESIGN (H0490)-\*PROJECT LEAD THE WAY 5.0**

Introduction to Engineering Design (IED) is a full year, high school level foundation course, in the PLTW Engineering Program. In IED students are introduced to the engineering profession and a common approach to the solution of engineering problems, and engineering design process. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will process from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Counts towards 21st Century Life and Careers.

 **PLTW** \*Project Lead the Way (PLTW) is the nation's leading provider of high-quality STEM – focused curriculum.

**INTRODUCTION TO JAVA (0353) 2.5**

This introductory course is designed for the student who has no or limited knowledge of JAVA programming. Students will be introduced to the programming process, JAVA special characters, the syntax of program comments, the format of a program, preprocessor directives, input/output, math operators and precedence, relational logic and conditional operators, increment, decrement, the use of variables, passing values, built in functions, and arrays. Counts towards 21st Century Life and Careers.

**ADVANCED PLACEMENT COMPUTER SCIENCE (A): JAVA (0346) 5.0**

This course will follow the course outline as prescribed in the College Board Advanced Placement course description. It is a college level course whose primary focus is the study of data structures such as arrays, linked lists, stacks, queues and trees, as well as searching, sorting, and numerical algorithms. The JAVA language is used as a vehicle for examining these concepts. Counts towards 21st Century Life and Careers.

**Prerequisite:** Introduction to JAVA or recommendation of computer science teacher.

**ADVANCED COMPUTER SCIENCE – DATA STRUCTURES: JAVA (0345) 5.0**

This honors course will be a continuation of the present Advanced Placement Computer Science (A): Java course. The course will provide the understanding and mastery of advanced searching techniques using Big-O notation and dynamic data structures using Java programming language as a learning vehicle. Topics will include heapsort, the operations of traversals, inserting and deletion of linked lists, stacks, queues, and trees. **Students may take this course for college credit through the Fairleigh Dickinson University Middle College Program. There is an associated cost to enroll students in the program.** This course carries Honor's weighting. Counts towards 21st Century Life and Careers.

**Prerequisite:** Completion of AP Computer Science (A): Java; teacher recommendation.

**ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES (H0361) 5.0**

This 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. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Counts towards 21st Century Life and Careers.

**Prerequisite:** Intro to Java, or teacher recommendation.

## BUSINESS EDUCATION COURSE DESCRIPTIONS

### **ACCOUNTING 1 (0501)**

**2.5**

This one-semester course will introduce students to the basic principles, concepts, and procedures for accounting. Students will go through the entire accounting cycle from analyzing and recording transactions to preparing financial statements. In addition, accounting career opportunities will be explored. This class will be offered to students in grades ten, eleven and twelve. Counts towards 21st Century Life and Careers.

### **PERSONAL FINANCE (0515)**

**2.5**

This one-semester course is aimed at developing an understanding of how to handle personal finances in today's economy. Topics covered will include financial planning and budgeting, principles of buying, suggestions for sound financial investing, suggestions for credit use, purchasing a car, and buying or renting a home. Students will also be made aware of the deceptions and frauds in the market place and how to avoid them. This course is offered to sophomores, juniors and seniors. Counts towards 21st Century Life and Careers.

### **BUSINESS MANAGEMENT (0509)**

**2.5**

The Business Management course is a study of our American business system. This one semester course is offered to sophomores, juniors and seniors. Such topics as our American business environment, the management of financial, human, and physical resources, management control and use of information, management skills, stock market, and international involvements are studied. Counts towards 21st Century Life and Careers.

### **BUSINESS LAW (0529)**

**2.5**

This course will enable the student to know more about his/her legal rights and duties. The student will be provided with some understanding of the complexity of the law and the legal implications of situations as they arise in day-to-day life. Course content includes the study of contracts, crimes, torts, criminal procedures, jury-trial procedures, civil procedures, and laws concerning minors and consumers. This is a one-semester course open to sophomores, juniors and seniors. Counts towards 21st Century Life and Careers.

### **ENTREPRENEURSHIP (0536)**

**2.5**

This course is designed for students with a desire to establish and maintain a successful business in the future. Students will learn to research, plan, and finance a small business. Hands on experience of product development, sales, inventory and finance will be done through the student run small store. Successful entrepreneurs will be studied and their businesses evaluated. Legal aspects of operating a business and their relationship to local ordinances, laws, and taxes will be covered as well as designing an in-depth business plan including all research and planning. This is a one-semester course open to grades ten, eleven and twelve. Counts towards 21st Century Life and Careers.

**SPORTS & ENTERTAINMENT MARKETING (H0550)****2.5**

Sports & Entertainment Marketing is a half-year business elective course offered to students in grades 10, 11, & 12 interested in marketing concepts as they relate to the growing sports and entertainment industries. The purpose of this course is to introduce students to marketing basics, marketing college athletics, sports marketing, using sports to market products, public images, entertainment marketing, legal issues in sports and entertainment, and advertising. This course will offer students the ability to define their own interests while exploring possible future careers. Counts towards 21st Century Life and Careers.

**SPRINGFIELD LEADERSHIP PROGRAM (0093)****2.5**

In the Springfield Leadership Program, student-leaders in grades eleven and twelve will craft and implement lessons for freshmen and students new to Jonathan Dayton High School. Students in the class will lead activities for freshmen that are designed to promote positive relationships and a successful academic, athletic and interpersonal experience in school. Specifically, students will create and implement a series of lessons that will enable freshmen to practice academic, social, and emotional skills such as goal-setting, decision-making, conflict resolution, bullying prevention, time management, and communications in a small group setting. Students will enhance their leadership skills, public speaking skills, and problem-solving skills in order to support their freshman peers in their transition to high school. Student Leaders will become positive role models, discussion leaders and mentors for ninth graders. Counts towards 21st Century Life and Careers.

**Prerequisite:** Successful completion of grades nine and ten; experiences in positions of leadership in co-curricular activities.

## VISUAL AND PERFORMING ARTS COURSE DESCRIPTIONS

Music courses meet for a full year unless otherwise noted. The following Visual Art Classes meet for a full year: AP Art History, AP Studio Art, Portfolio Honors and one section of Open Studio. All other classes are semester courses.

### MUSIC

Concert Band and Chorale are performance-based courses that provide students with many opportunities to exhibit their musical skills. Students electing Concert Band and Chorale who wish to perform in both ensembles should sign up for Concert Band/Chorale (0716). These courses will be scheduled for the same period, so that students can participate in both.

#### **CHORALE (0708)**

**4.0**

The objectives of this course are to develop the vocal skills, knowledge, understanding, and appreciation of choral music. Also, to develop the highest possible standards of performance. Membership is open to any student who is interested in singing. All concerts and rehearsals are required; failure to attend may adversely affect a student's proficiency and grade in this course. Some rehearsals and performances may be on weekends or in the evening. This class will also aid in preparation for other vocal music opportunities such as the Spring Musical and the audition based Extra-Curricular Choir, as well as regional and All-State ensembles. This course may be taken concurrently with Concert Band.

#### **CONCERT BAND (0704)**

**5.0**

The Concert Band course meets daily within the school schedule. It is open to all students who play band instruments. This course is designed to help students become familiar with historical and technical aspects of the musical arts through instrumental musicianship and ensemble playing. Students participate in two major performances a year, a winter and spring concert, as well as other concerts, competitions and festivals. All performances and rehearsals are required. Some rehearsals may be held in the evening or after school. Failure to attend performances or rehearsals may adversely affect a student's proficiency and grade in this course. Students are also required to attend weekly small ensemble lessons to further their musical development. Marching Band is a required component of Concert Band. The Marching Band performs at football games and may perform at parades or competitions. This class may be taken concurrently with Chorale as a full-year course.

#### **STRINGS ENSEMBLE (0712)**

**5.0**

Open to any student who plays violin, cello, viola or string bass, String Ensemble offers musicians challenging opportunities to develop many aspects of performance. This course offers students experience in studying and performing a wide variety of music such as chamber music, classical and contemporary literature as well as other repertoire appropriate to the students' degree of advancement. Elements such as intonation, articulation, rhythmic precision, dynamic variety, bowing techniques, balance and blend are studied.

Students will have various performance and outreach opportunities such as; Winter & Spring Strings Orchestra Concerts, art shows, senior citizen breakfast, hospitals, National Honor Society, Six Flags Great Adventure Competition, etc. This class will also aid in preparation for other music

opportunities such as extra-curricular orchestras, and the audition based Regional and All- State Orchestra.

### **ADVANCED PLACEMENT MUSIC THEORY (0711)**

**5.0**

Advanced Placement Music Theory is a full-year college level course that emphasizes many aspects of music. Some of those aspects include harmony, melody, texture, rhythm, form, musical analysis, elementary composition, and to some extent, history and style. In this course, students will be expected to read, notate, compose, perform, and listen to music. The development of aural skills will be the primary objective of this class along with performance to demonstrate these skills by using keyboard, singing, and the student's primary instrument.

#### **Course Requirements:**

1. Students must obtain a written recommendation from the music teacher in order to take this course.
2. Students must have three (3) consecutive years in a school performance ensemble such as Concert Band or Concert Choir, or the equivalent in private studio instruction.

### **MUSIC PRODUCTION LAB 1 (H0714)**

**2.5**

This course is intended as an introductory course for students who are interested in honing their skills as a pop, rock or hip-hop songwriter, artist or producer. This course will begin by analyzing popular music and dissecting our role as consumers within the industry. Over the course of the semester, students will develop skills within the GarageBand software to compose, record and produce a series of original musical projects. We will discuss songwriting and recording techniques by exploring various artists, important albums, and current leaders of the music industry. As a prerequisite, students must be able to demonstrate basic musical competency and the ability to read music.

#### **Prerequisites:**

As a prerequisite, students must be able to demonstrate basic musical competency and the ability to read music. Recommended that students have successfully completed either or both Keyboard Skills and Music and Technology courses in middle school.

### **MUSIC PRODUCTION LAB 2 (H0715)**

**2.5**

This course is designed to build on the skills developed in Music Production Lab 1, focusing on technical facility in a recording environment, music theory and literacy as well as analysis and popular musicology. Students will learn recording and production techniques by using GarageBand and other available software and cultivate music theory knowledge by continued study of popular music in the modern music landscape. Students will be able to apply songwriting technique, music theory and GarageBand skill into a marketable portfolio of original music. Prerequisite: Students in this class must demonstrate successful completion of Music Production Lab 1 or, successful audition that satisfies musical competency, basic music theory, performance and facility in a Digital Audio Workstation such as GarageBand.

#### **Prerequisites:**

Music Production Lab 1

**FOUNDATIONS IN STUDIO ART (0720)****2.5**

Foundations in Studio Art is a course for students who would like to know how to use art materials in interesting and unique ways. This course will provide step-by-step instruction in drawing and painting skills. Students will also have a chance to explore cartooning as a form of visual expression. A variety of media will be available, including clay as it applies to drawing and painting techniques. Sketchbooks will be used to reinforce class instruction. Note that in most cases, Foundations in Studio Art is a basic foundation course necessary for further advanced work in the Visual Art department. Students who participated in the TAP program at the middle school level should contact the art teacher in their freshman year.

**FOUNDATIONS IN CRAFTS (0721)****2.5**

This is a multi-craft course involving ceramics, bookmaking and printmaking. Ceramic processes of handbuilding, wheel throwing techniques and glazing will be emphasized. Students will be introduced to the handling of tools and the uses of various materials. Emphasis is placed on design and craftsmanship.

**CERAMICS AND THREE-DIMENSIONAL FORMS (0722)****2.5**

This course focuses on advanced ceramic processes of handbuilding, wheel throwing techniques and glazing. Sculpture and other three-dimensional forms will be explored.

**DRAWING AND PAINTING (0723)****2.5**

This course focuses on figure drawing, painting, working from still life, and an exploration of various media such as acrylics, oil, watercolor, tempera, charcoal and pencil.

**OPEN STUDIO-EXPANDED MEDIA (0727, 0729)****2.5, 5.0**

Colleges are increasingly asking for student portfolios for all academic department areas. This class will help students explore an interest area in depth and learn how to prepare a simple visual portfolio. Alternating areas of digital imaging, drawing/painting, and three-dimensional forms will be explored in both group and individual projects utilizing a wide range of media. A museum/gallery experience is included as an integral part of the course. The ability to work independently is very important. This course may be taken for one semester or for a full year.

**Prerequisite:** One art class or recommendation of teacher.

**PORTFOLIO STUDIO ART (0726)****5.0**

This portfolio development course will focus primarily on improving the quality in student work and meeting the student's need for diverse experiences in the formal, technical, and expressive areas of art making. Students will make a digital portfolio of completed artwork which can be used in college application supplements. Students interested in completing an AP Portfolio will take the Portfolio Studio Art course to begin work in the breadth section of their portfolio. At least ten of the twelve breadth requirements must be completed to receive Honors weighting.

**Prerequisite:** One art course and teacher approval.

**Students may earn three college credits by enrolling in the Fairleigh Dickinson University Middle College Program.**

## **ADVANCED PLACEMENT STUDIO ART (0732, 0733)**

**5.0**

The AP portfolio usually requires two years of preparation and should be started in the junior year in Open Studio or Portfolio Honors classes. This is a vigorous program, which will require additional work outside the classroom. Ability to work independently is very important. A museum gallery experience is included as an integral part of the course.

For those students interested in AP Studio Art, the focus will be on completing specific portfolio preparation requirements for submission and evaluation by the College Board as indicated by AP guidelines. Students may submit portfolios in the following categories:

- \* Drawing
- \* Two-Dimensional Design
- \* Three-Dimensional

A typical student portfolio includes 25-29 original works in the following categories:

- \*Section A: Quality- Five works of submission
- \*Section B: Concentration- Twelve related art forms and a written commentary
- \*Section C: Breadth- Eight to twelve works showing range of media and subject

**Students may earn three college credits by enrolling in the Fairleigh Dickinson University Middle College Program. Students may also earn three credits as Drawing I from Seton Hall University.**

## **ADVANCED PLACEMENT ART HISTORY (0123)**

**5.0**

The Advanced Placement Seminar is a full-year college-level course in Art History. A primary focus is on the study of Western art making from prehistoric through contemporary times. This AP seminar is unique in that it also covers the study and comparison of non-western art making. Students will develop the ability to identify and compare art made in different cultures at different historical times.

In a millennium based on visual literacy, this understanding is not only relevant but mandatory. Students will use a series of textbooks, PowerPoint software and Internet sites as seminar resources. This course will help students improve their skills in art history and visual identification through demanding reading and writing assignments. Museum/gallery experiences are included as an integral part of the course. Many colleges are granting 3-6 course credits for a grade of 3 or higher in AP Art History. This course is open to all eligible students in grades ten, eleven and twelve.

Course Requirements:

1. It is important that students wishing to take AP Art History have demonstrated strong writing skills in all previous English coursework.
2. All students who register for AP Art History must meet with the AP Visual Art teacher for a verbal review of the requirements of the course.
3. All candidates will be required to complete summer assignments, which will be evaluated at the beginning of the AP course.

**This is a dual credit course in conjunction with the Middle College Program at Fairleigh Dickinson. Students may earn three college credits by enrolling in the Fairleigh Dickinson University Middle College Program.**

**INTRODUCTION TO DANCE (H0750)****2.5**

This course provides students with a survey of dance styles and forms from around the world. In addition to exploring Western dance styles (including, but not limited to: ballet, jazz, modern, hip-hop, musical theater) students will be exposed to cultural dances, folk dances, and other dance traditions from other parts of the globe. This course will introduce students to skills required to build a foundation in dance history, performance, presentation and self-expression. Students will also have the opportunity to explore the dance production process, focusing on audition skills, rehearsal techniques and performance requirements.

**DANCE I (H0751)****2.5**

This beginner course is an introduction to the fundamentals of Ballet and Modern dance with an emphasis on the Graham, Horton, and Limón techniques. Ballet elements include beginning Ballet movements, positions, vocabulary and Barre work. Modern elements include floor positions, Modern dance vocabulary, and dance history. In each dance class, students will be expected to participate in warm-ups, across the floor progressions, choreography, and review. Dance classes require the student to be dressed appropriately for dance and participation is essential to the fulfillment and completion of this the course.

**DANCE II (H0752)****2.5**

Students in Dance I will continue to build upon their foundation in the skills of technique, strength, flexibility, alignment, endurance, coordination and performance qualities (focus, confidence, artistic intent). They will have the opportunity to explore various genres of movement as well as incorporate the elements of dance (time, space, energy and meaning) to create their own choreographed routines.

**Prerequisite:** Dance I or three consecutive years of private dance studio instruction, per teacher approval.

**ADVANCED DANCE (H0755)****2.5**

Students will reinforce and enhance concepts learned in previous dance courses such as, dance technique, codified dance styles and the structure of choreography. They will apply their expertise to choreograph, design and perform dance pieces in various recitals, competitions and exhibitions. Students will focus on individual as well as whole group performances in a variety of dance styles including, but not limited to: Jazz, Ballet, Modern, Hip-Hop and World Dance forms. This course will also allow students to explore dance specific career pathways and create a dance portfolio that can be used for higher education or professional purposes.

Students are required to participate in up to two major evening performance recitals a year, a winter and spring dance showcase. Failure to attend performances may adversely affect a student's proficiency and grade in this course. This course will also aid in preparation for other dance opportunities such as audition based dance ensembles, state and national honors competitions, etc.

**Prerequisites:** Dance II or three consecutive years of private dance studio instruction, per teacher approval.

**DANCE FITNESS: YOGA (H0757)****2.5**

This course provides students with an introduction to the basic postures, breathing techniques, relaxation methods and other fitness benefits of yoga. Students will learn stress management strategies through breathing and movement as well as introduce life-long wellness habits to promote vibrant health and use the body's musculature and respiratory systems to maximize optimal energy.

## **21ST CENTURY LIFE AND CAREERS (PRACTICAL ARTS)**

Note: See Subject Listing on page 22 for all 21st Century Life and Career courses indicated with an asterick (\*).

### **BLACK AND WHITE PHOTO (0790)**

**2.5**

This course is designed to introduce the student to the field of 35 mm film photography. Included are the principles of simple photographic theory, use and selection of cameras, use of special lenses and filters and use of various types of film. Basic darkroom techniques of developing and enlarging will be presented. A student portfolio and critiques of composition and technique are an integral part of the course. Safe working procedures will be stressed. This is a one-semester course.

### **DIGITAL PHOTOGRAPHY (0639)**

**2.5**

This semester course is designed to give students a working knowledge of the digital imaging process, to learn how to use a digital camera, to learn other methods of digital image capture, and to master advanced Photoshop skills. Students will study various methods of manipulation of digital images, employing the computer and associated commercial software (Adobe Photoshop) and peripheral equipment (cameras and scanners) to alter photographic images. Students will apply design principles to each application. Students will learn how to use composition to improve the layout of their photos.

### **INTRODUCTION TO TV (0098)**

**2.5**

Students will learn how television is a medium of communication. They will gain the knowledge of present day broadcasting/cable casting techniques. Since this is a hands-on class, students will learn and refine both their technical and creative processes in television production. They will learn how important it is to be part of a cooperative team and achieve a successful recorded production. This will include participating in the 'loop' and engaging as a director, technical director, character generator operator, video tape operator, teleprompter operator, audio manager, assistant audio manager, floor manager, camera operator and talent. At the end of the semester, students learn how to make storyboards and write scripts for their final project. This is a one-semester course.

### **ADVANCED TV (0099)**

**2.5**

Students will reinforce and enhance the concepts learned in Introduction to TV. They will apply their expertise to videotaping live shows to be cablecast on the public access channel and a daily broadcast of the morning news throughout the school. In addition, students will learn how to use portable equipment for E.N.G (Electronic News Gathering) and E.F.P. (Electronic Field Production) projects shot in and around the school. The students will also learn the concepts of digital editing and incorporate the process into their assignments in order to submit polished video productions. Students also will work in cooperative learning groups for their final project.

**Prerequisite:** Introduction to TV

### **TV PRODUCTION PRACTICUM (7099)**

**2.5**

Students will learn how television is a medium of communication. The success of all students in this course depends on the ability to work as a team in a cooperative learning environment, gaining the knowledge of the delivery of the school's morning newscast in a timely, accurate, informative, entertaining and respectful nature. Since this is a hands-on course, students will learn and refine both their technical and creative processes in television production, in addition to demonstrating proper execution of announcing and performing. Students will be expected to introduce new segments to air on the newscasts and promote school events through written expression and video projects. Near the end of the course, students will demonstrate the knowledge of the special techniques and use of digital editing and the equipment necessary for productions of the following formats: Studio, ENG (Elec-

tronic News Gathering) and EFP (Electronic Field Production). At the end of the course, students will be expected to submit a final project in lieu of a written final exam.

**Prerequisite:** Introduction to TV.

### **RADIO PROGRAMMING AND PRODUCTION (0737) 2.5**

Students who elect this course will learn about the impact of radio on society. This course will incorporate the radio industry (terrestrial and non-terrestrial/satellite), voice and speech techniques for announcing, writing skills for news and commercial copy, digital audio editing, radio programming and media sales. This is a hands-on cooperative learning course. Students will learn how to work together and perform such activities as a disc jockey (D.J.), talk show host and news reporter. Students will also have a choice of performances for a final project.

### **INTRODUCTION TO GRAPHIC DESIGN (0638) 2.5**

In this course students will acquire practical introductory knowledge of commercial art and advertising design. They will be able to solve formal problems dealing with fundamental principles and will develop the basic skills necessary to work with specific types of media, especially computer-generated graphic design. The primary objective of this course is to teach students to prepare advertisements and commercial designs from concept to visual communication. Software used in class includes Adobe Photoshop, Illustrator and InDesign.

### **INTRODUCTION TO TECHNICAL THEATER (0080) 2.5**

In this course, students are introduced to the basic vocabulary, equipment, personnel, and processes involved in the backstage operations of theatrical productions. Class participation leads directly to practical experience, as each student is assigned a different backstage role in actual productions (e.g., light board operation, sound board operation, assistant stage manager, backstage crew, hang and focus crew, scenic design & set building). Students gain essential information and practical experience related to the people, processes, and equipment that enable and enhance live performance. Students will be required to contribute to school productions in order to engage in authentic assessment of their knowledge and skills.

### **STAGECRAFT AND SET DESIGN (0079) 2.5**

Open to any student who expresses an interest in the construction and development of theatrical sets, Introduction to Stagecraft and Set Design covers the fundamentals of backstage technology through actual practice and through the collaborative development of planning and rendering.

Students will understand the workings of a scene shop and apply the necessary skills to use tools to create flats, platforms, props, fixtures and other scenery. Students will be given the opportunity to work on actual sets for events such as the school drama and musical. Collaboration on projects for school events will be the performance assessment requirement for this course.

### **INTRODUCTION TO LIGHTING AND SOUND DESIGN (7080) 2.5**

Introduction to Lighting and Sound Design covers the fundamentals of backstage technology through authentic experience. Through collaborative development of planning and incorporating the methods and materials of stage lighting and sound, students will build sets and sound stages for performance. The course will emphasize the functions and qualities of light, instruments, control equipment and procedure, with an introduction to the tools, techniques, and processes of sound and music for the theatre. Tasks will include a series of exercises and discussions on the structure of

audio systems, digital audio editing and playback, play analysis, and the creative enhancement of the dramatic environment. Students will be given the opportunity to work on actual lighting and sound equipment for events such as the school drama and musical. Collaboration on projects for school events will be the performance assessment requirement for this course.

**Prerequisite:** Introduction to Technical Theater.

**BAKE SHOP 1 (0613)****2.5**

The course will teach the students basic principles and fundamentals of the professional bakeshop. Students will learn quick breads, yeast-raised breads and pastry, desserts such as pies, cakes, cookies and pastries. Students will also be introduced to Pastry Arts and Cake Decorating.

The class is an essential part of the Commercial Culinary Arts Program and will be a requirement for the curriculum.

**BAKE SHOP 2 (0623)****2.5**

This baking and pastry arts course is designed to give students advanced knowledge, skills and understanding of advanced baking methods and techniques found in professional bake shops and food service settings. Topics include preparation and presentation of various desserts and dessert sauces, complex yeast raised doughs, quick breads, pies, cookies, tortes, pastries, cakes and cake decorating.

**Prerequisite:** Students must have successfully completed Bake Shop 1.

**FOUNDATIONS OF RESTAURANT MANAGEMENT & CULINARY ARTS 1 (H0668) 2.5**

This course is open to any student who would like a better understanding of what food service careers involve and offers an insight and opportunities of the food service industry, as well basic fundamentals needed to pursue a career in Culinary Arts.

The class is an essential part of the National Restaurant Association ProStart Culinary Arts Program and will be a requirement for the curriculum.

Students who have completed the requirements of the ProStart program are awarded an industry recognized certificate from the National Restaurant Association, the industry leading restaurant educational organization, nationally and across the globe.

**FOUNDATIONS OF RESTAURANT MANAGEMENT & CULINARY ARTS 2 (H0669) 2.5**

This class is open to all students that have successfully completed Foundations of Restaurant Management and Culinary Arts Level 1 Section 1. The course offers insight to basic food preparations as well as the purchasing, storage and inventory of fresh and prepared foods. Students will be able to identify fresh produce and dairy products and prepare them for service, i.e.: basic egg and dairy dishes, appetizers, salads, and side dishes (pasta, fresh fruit and vegetables).

The class is an essential part of the National Restaurant Association ProStart Culinary Arts Program and will be a requirement for the curriculum.

Students who have completed the requirements of the ProStart program are awarded an industry recognized certificate from the National Restaurant Association, the industry leading restaurant educational organization, nationally and across the globe.

**Prerequisites:** Foundations of Restaurant Management & Culinary Arts 1

### **FOUNDATIONS IN RESTAURANT MANAGEMENT & CULINARY ARTS 3** **2.5**

This semester course is open to all students who have successfully completed Foundations of Restaurant Management and Culinary Arts 1 & 2. This course is offered to those students that are considering a career in culinary arts and wish to own and/or operate a restaurant in the future. Students will also learn culinary skills necessary to create a typical restaurant menu. Finally, students will be able to understand the proper atmosphere by learning different techniques in plating and presentation.

Students who have completed the requirements of the ProStart program are awarded an industry recognized certificate from the National Restaurant Association, the leading restaurant educational program in the industry, both nationally and across the globe.

\*This class is an essential part of the National Restaurant Association ProStart Commercial Culinary Arts Program and will be a requirement for certification.

**Prerequisites:** Students must have successfully completed Foundations of Restaurant Management & Culinary Arts 1 and 2.

### **FOUNDATIONS IN RESTAURANT MANAGEMENT & CULINARY ARTS 4** **2.5**

This semester course is open to all students who have successfully completed Foundations of Restaurant Management and Culinary Arts 1,2 & 3. This course is offered to those students that are considering a career in culinary arts and wish to own and/or operate a restaurant in the future and continues with further concepts and strategies that were presented in previous culinary arts programs. Students will explore typical situations and scenarios that happen in basic daily restaurant operations and this course offers the opportunity to learn the necessary skills to operate a successful restaurant.

Students who have completed the requirements of the ProStart program are awarded an industry recognized certificate from the National Restaurant Association, the leading restaurant educational program in the industry, both nationally and across the globe.

\*Students successfully completing all four levels of this course will have the opportunity to earn their ServSafe Food Handlers Certificate, a nationally recognized food safety program sponsored by the National Restaurant Association.

**Prerequisites:** Students must have successfully completed Foundations of Restaurant Management & Culinary Arts 1, 2 & 3.

### **AMERICAN REGIONAL CUISINE** **2.5**

American Regional Cuisine is the original Fusion Cuisine. This course is based on the 7 culinary regions of America, the Northeast, Mid-Atlantic, Southern, Southwestern, Pacific, Western, Northwest. Students craft, taste and critique food preparations of each region while learning about different cultures, foods and cuisines found in the world's melting pot.

**CLASSIC FRENCH AND ITALIAN CUISINE****2.5**

Classic French and Italian Cuisine dominate and influence the flavors of the world's top cuisines. This course will focus on the methods and techniques used in developing innovative preparations for the modern restaurant. Students will gain an appreciation for the appropriate preparation & presentation methods, as well as the heritage, cultural understandings and historical context of the regions studied. Students will craft, taste and evaluate traditional preparations of classic French and Italian Cuisine.

**INTERNATIONAL CUISINE****2.5**

This course will focus on the methods and techniques used in developing innovative preparations for the modern restaurant. Students will study international cuisines from Asia, The Mediterranean, Latin America, Europe and the Middle East. Students will gain an appreciation for the appropriate preparation & presentation methods, as well as the heritage, cultural understandings and historical context of the regions studied. Students will craft, taste and evaluate traditional preparations of the world's finest cuisines.

## TOMORROW'S TEACHERS

### TOMORROW'S TEACHERS (0095)

5.0

The course is a study of the history, development, organization and practices of preschool, elementary and secondary education. Students will explore the theories of child development and learning, as well as the styles and needs of individual learners. They will experience the teaching profession through observation in a variety of educational settings, including Springfield elementary schools and the child care program. Students will learn to develop lesson plans and units of study, and gain experience in implementing these lessons. This course will provide students with insight into the art and science of teaching as well as give them an understanding of the various careers in education. This course carries Honor's rating.

**Prerequisite:** Successful completion of grades nine and ten; experiences in positions of leadership in co-curricular activities.

## HEALTH AND PHYSICAL EDUCATION COURSE DESCRIPTIONS

The Physical Education/Health department at Jonathan Dayton High Schools main goal is to provide information necessary for students to develop the ability to make healthy life choices that will last a lifetime.

### PHYSICAL EDUCATION

<b>Course with science lab pull out</b>	<b>3.0</b>
<b>Course with no science lab pull out</b>	<b>3.75</b>

#### Physical Education Grade 9 – 12, ACTIVITIES

Required – 2 Quarters Annually

Students will be exposed to a variety of team and individual activities. Emphasis is placed on the development of movement skills, strategy, rules/regulations, sportsmanship and safety necessary to compete in a variety of sports successfully. The following activities will be offered: kinball, handball, mat ball, speedball, tchoukball, ultimate, wiffleball, basketball, archery, golf, flag football, soccer, volleyball, and racquet sports. In addition to team and individual activities all students will participate in and be performance-tested once each year in physical fitness. Written/skills tests will be given to assess knowledge of rules and skills as they apply to each particular activity.

Standards set by Physical Education Department, State of New Jersey and Federal Government, Title IX.

#### Physical Education Grade 9 – 12, WELLNESS

Required – 1 Quarter Annually

The Wellness course is designed to provide students an opportunity to examine attitudes and practices with regard to their own wellness and fitness goals. Students will develop and implement a program of resistance/cardio training that will meet personal fitness goals present and future. Students will be exposed to current trends, equipment, and computer software in the application of course concepts. Written tests will be administered to assess student knowledge of current fitness practices. Standards set by Physical Education Department, State of New Jersey and Federal Government, Title IX.

### HEALTH

<b>Courses with science lab pull out</b>	<b>1.0</b>
<b>Courses with no science lab pull out</b>	<b>1.25</b>

#### Health Education - Grade 9, NUTRITION/MENTAL HEALTH

Required – 1 Quarter, Marking Period 3

Health 1 is designed for students to learn and apply skills / facts based on nutrition values necessary for healthy living. The field of mental health will be examined, including signs, symptoms, diagnosis and treatment of specific disorders; basic theories of mental health and mental illness. This course will investigate the mental health field from a historical perspective and discusses current issues in this field. Upon completion of this course, students will know the basic areas of knowledge and practical applications of nutrition and mental health. Written exams, projects, quizzes will be administered to evaluate student mastery of material.

#### Health Education - Grade 10, DRIVER'S EDUCATION

Required – 1 Quarter, Marking Period 2

In the Health 2 course students will study the impact of safe and responsible driving to develop mature attitudes and proper habits. The Basics of Signs, Signals, and Pavement Markings, Rules of the Road, Getting to Know the Vehicle, Starting Steering and Stopping, Basic Driving Skills, Turning and Parking, Lights and Weather Conditions, Sharing the Road, Driving Environments and Laws. Included in the course is a continued study of drugs, tobacco and alcohol along with their relationship to the operation of a motor vehicle. This course will prepare students to take the New Jersey Department of Motor Vehicle written examination. Written exams are used to assess student's mastery of material.

#### Health Education - Grade 11, CPR/FIRST AID/ANATOMY

Required – 1 Quarter, Marking Period 1

This course provides students the opportunity to acquire skills necessary to obtain certification in first aid/CPR. Students complete practical and written activities, and assessments that will provide a basic foundation of knowledge for injury prevention and treatment. Students will learn basic structure of human anatomy and body systems. Written exams, projects, quizzes will be administered to evaluate student mastery of material.

#### Health Education - Grade 12, FAMILY LIVING

Required – 1 Quarter, Marking Period 4

The Family Living course is designed to help students better understand how to define and reach their future personal and financial goals. It provides basic understanding of adult living so informed decisions can be made. The course can also be seen as a reference for individual topics that are part of personal planning. Management of personal affairs, financial, relationships, sexual behavior, and independent living are topics explored in the course. Written exams, projects, quizzes will be administered to evaluate student mastery of material.