



Bergenfield High School
Program of Studies
2021-2022

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IMPORTANT TELEPHONE NUMBERS

Unless Otherwise Noted Dial 201-385-8600 plus the extension listed below

Mrs. Jacqueline Gagliardo, Director of Counseling & Support Services	Ext 1350
Mrs. Loretta Borrows & Ms. Roni Hansen, School Nurses	Ext 1320
Dr. Lorry Booth, Director of Special Education	201-385-6956
Mr. Darren Massey, Acting Director of Athletics/PE	201-385-8876
Ms. Linda DePinto, Student Assistance Counselor	Ext 1366
Mr. Steven Neff, Supervisor of Science/Mathematics	Ext 1374
Dr. Ligia Alberto, Director of Testing/Alternative HS Principal	Ext 1303
Ms. Tara Schneider, Supervisor of Humanities	Ext 1917
Ms. Zoe Lloyd, Supervisor of World Language and ESL	Ext 1375
Mr. Robert Ragasa, Supervisor Technology Education and Business	Ext 1302
Mr. Brian Timmons, Coordinator of Music	Ext 1789
Attendance	Ext 1609
Bear Facts	Ext 1255
Board of Education	201- 385-8801
BHS Fax #	201 - 439-0978
Field House	201 - 385-7170
BHS Library	Ext 1257
School Closing	201 - 385-9410
Yearbook	201 - 387-3896

*For questions regarding the district art program, please contact Ms. Darlene Markman, Assistant Supt. of Curriculum at 201-385-6250.

Bergenfield Board of Education

Dr. Joseph Amara, President
Ms. Guadalupe Ruiz-Catala, Vice-President
Dr. Nelson Reynoso, Trustee
Ms. Ovelis Munoz, Trustee
Ms. Debbie Podwin, Trustee

Bergenfield Public Schools

Central Office Administration

Dr. Christopher Tully, Superintendent of Schools.....201-385-8202
Ms. Darlene Markman, Asst. Supt. of Curriculum.....201-385-6250
Dr. Christopher Tully, Acting Business Administrator.....201-385-8801

High School Administration

201- 385 -8700

Mr. James Fasano, Principal.....Ext 1301
Mr. Robert Ragasa, Asst. Principal.....Ext 1302
Mr. Robert Violante, Dean of Discipline.....Ext 1304
Mr. Darren Massey, Dean of Discipline.....Ext 1305

Counseling Department

201-385-8600

Guidance Counselor assignments are made over the summer for all grade 10 students.
Students remain with their assigned counselor throughout their high school years.

Mr. James Butler Ext 1363
Ms. Lauren LaPorta Ext 1378
Mrs. Melissa Yoskowitz Ext 1365
Mrs. Dana Massey Ext 1372
Ms. Estefania Valera (Grade 9 Counselor) Ext 1377
Ms. Linda DePinto, Student Assistance Counselor Ext. 1366

Dear Parent(s)/Guardian(s) and Student:

Course selection is one of the single most important decisions that you can make each year in regard to education and future life plans. It is our goal that each student takes the most rigorous curriculum with which he/she can be successful. This will enable each student the best possible chance to meet his/her future life goals.

Choose your subjects wisely. Make sure you take courses that are required for graduation. Be sure that each course will be challenging for you, and take courses that will be of interest. There are numerous programs that reflect a broad scope of interests and abilities. We encourage every student to seek those learning opportunities that respect and recognize individual differences.

Each grade that you receive in a class is recorded on a transcript. We encourage every student to become involved in our programs, as they provide recreational outlets as well as vocational and avocational opportunities. Bergenfield High School takes pride in providing programs that promote intellectual, physical, social, and emotional growth.

This Program of Studies is intended to be a resource for both parents/guardians and students. If you have a question with any of its contents, please contact your child's counselor. The guide is also available online in the guidance section of the web site. The guide is updated throughout the year as changes are made in procedures or course offerings. Please check the online guide for the most recent information.

Guidance counselors are a valuable resource to students and their families. We encourage students and their parents to work with their respective counselors on course selection. If any parent or student has any questions please contact the student's guidance counselor.

It is our earnest hope that Bergenfield High School will provide many enriching experiences, and that these will be some of the happiest and most profitable years of your life.

Jim Fasano
Principal

SERVICES AVAILABLE TO STUDENTS/PARENTS

1. **The Open Door Policy:** This policy provides the opportunity for any student, parent or resident to talk to any administrator, teacher or staff member regarding any issue, concern or problem.

Procedure: Simply go to the appropriate school of the person with whom you wish to speak. If the person is available, an immediate conference can be held. To ensure availability of the person with whom you wish to speak, please make an appointment with the appropriate office. In case of an emergency, the Main Office (201-385-8600 ext. 1201) will assist in directing you.

2. **Child Study Team:** The Board of Education provides the services of a Child Study Team to help students succeed in school. A Child Study Team consultant is affiliated with each building and he/she is available to any student in the school who may be experiencing a personal or family crisis which requires immediate attention. Some of the members of the Child Study Team whose expertise is available for students and parents are:

- A. School Psychologist
- B. Social Worker
- C. Learning Disability Specialist

Procedure: Telephone the high school and request to speak with the Child Study Team Consultant. 201 385-6956

3. **Special Education Services:** Special Education classes/programs are available for students who meet specific requirements specified in New Jersey Administrative Code Section 6A - 14. Prior to referral to the child study team for possible special education services, interventions are to be implemented in the general education program.

For more information contact the student's guidance counselor or telephone the Special Education Department (201 385-6956).

4. **Guidance Counselors:** Each student grades 6-12, is assigned to a specific Guidance Counselor. Counselors are available to assist the students in decision-making processes, to learn about themselves and to make educational decisions which are best for them. They also are available to discuss problems with parents, peers, or teachers in adjusting to school in general.

Procedure: Call the student's guidance counselor to make an appointment.

5. **Student Assistance Counselor:** The Student Assistance Counselor (S.A.C.) provides information, evaluation, and resource referral for assessment and/or treatment for drug/alcohol problems. The S.A.C. also provides re-entry support for students returning from treatment centers. As part of our Alcohol and Drug Abuse Prevention policy, copies of the policy and procedures will be made available annually to all students, parents, faculty and staff.

Procedure: Telephone (201 385-8600 x 1366)

6. **Assistant Principal:** The Assistant Principal functions as a resource for students who wish to discuss any disciplinary, academic, or social problems that they might be experiencing.
Procedure: Telephone (201 385-8600 x 1302)
7. **Dean of Discipline:** The Dean of Discipline meets with students who are experiencing difficulties complying with the rules and regulations of the High School.
8. **Tutoring Program:** Tutoring services are provided by volunteer students from the National Honor Society, Interact, Peer Leadership, and Student Congress.
9. **Part-time Employment Assistance:** This service is provided through the Guidance Department. Employers needing part-time workers inform the Guidance Department, which then posts the jobs on a bulletin board in the Commons at the High School.
10. **Working Papers:** New Jersey State Employment Office procedures are followed to enable students who live in Bergenfield to be issued the necessary papers to obtain work.
Procedure: Telephone the Main Office (201 385-8600)
11. **Health Services:** A nurse is on duty from 7:45 a.m. to 3:00 p.m. daily to provide for emergency health needs of and health information to, students and staff. Annual health appraisal screenings and required physical examinations for school and sports are also scheduled through this office.
Procedure: Telephone the School Nurse at (201 385-8600 X 1320)
12. **Home Instruction:** In situations where, because of an illness or accident, a student is unable to attend school for two or more consecutive weeks, a teacher is sent to the home or hospital to provide instruction for the student.
Procedure: Telephone the Assistant Principal at (201 385-8600 x 1302) or the school nurse at (201 385-8700 x 1320).
13. **Special Needs Transportation:** Transportation to and from school is provided to students who, because of injury or disability, are unable to walk to school.
Procedure: Telephone the school nurse at (201 385-8600 x 1320).
14. **Food Subsidy Assistance Program:** Reduced cost or fully subsidized lunches are available for families with limited incomes.
Procedure: Telephone Board of Education (201 385-8801)
15. **Drop-Out Policy:** The district strives to have every student, who enters, graduate. If a student is considering dropping out of school, an exit conference is held with

the building Principal. The purpose of the exit conference is to discuss how to have the student be successful in school. Sometimes the student and parent are convinced the only solution is to drop out. If that is the case the exit conference focus shifts to helping the student continue his/her education in an alternative setting. Exit conferences are also held for students who have reached 20 years old, the maximum age for enrolment in a public high school.

Procedure: Telephone Guidance Counselor (201-385-8600)

16. **Alternative School:** This is a program for students who have not been successful in the high school and are in need of a different type of setting to learn. Students are selected for this program based on input from Teachers, Guidance Counselors, Child Study Team Members and Administration.
17. **9th Grade Academy:** This is a program designed to help all 9th graders adjust to the high school and be academically successful. This program is an extension of the team concept the students had in the middle school. To the maximum extent possible, each student is scheduled so that he/she has a common set of academic teachers. Teachers meet with the grade 9 counselor to discuss student progress and develop programs to help students who are struggling.

TITLE 6 of the NEW JERSEY ADMINISTRATIVE CODE Request to Review School Records

In the State of New Jersey you have the right to inspect school records that pertain to your child. To review these records, an Access Request Form must be completed and an appointment made. These forms are available at the administrative office of the school which your child attends. An authorized professional staff member must be present when the records of your child are inspected.

Adult students, 18 years of age or older, also have the right to inspect their own records. The parents of an adult student have the same right where the adult student is dependent upon them for support.

These records are made available to you in accordance with the provisions of Title 6 of the New Jersey Administrative Code. Copies of these provisions are available for review in all general offices within the school system.

AFFIRMATIVE ACTION 504 District and HS Officer

In the spirit of Title 6 of the Statutes of the State of New Jersey which became effective May 20, 1975, Bergenfield High School is striving to insure that all students will receive equal educational opportunity regardless of race, sex, disability, creed, color, religion, ancestry, national origin or social or economic status; and has instituted open and equal access to all school-sponsored courses, programs, and activities offered before, during or after school hours. The Affirmative Action Officer for the Bergenfield School District is Ms. Darlene Markman, Assistant Superintendent.

INTERSCHOLASTIC ATHLETICS

Bergenfield High School is a member of the New Jersey State Interscholastic Athletic Association, as well as a member of the Northern Bergen Interscholastic Athletic League.

Every student in BHS is encouraged to participate in the athletic program. It is firmly believed that there is something to be gained from participation, even though a student may not be an exceptionally skilled athlete. Why not give some team the benefit of your talent and, in turn, you receive the rewards that this participation will provide?

The following sports are available in the athletic program with Freshman, Junior Varsity and Varsity levels offered in most activities for both boys and girls.

Fall: Football, Soccer, Cross Country, Volleyball, Cheerleading, Tennis

Winter: Basketball, Bowling, Indoor Track, Wrestling, Cheerleading

Spring: Baseball, Track, Golf, Tennis, Softball

School sport screening and physical examinations are offered at no cost to the student prior to each seasonal sport. The screening and examination schedule is posted in the BHS Health Office, the gym areas, and is also available from the coaches and school nurse. School sport screenings and physical examinations held during the summer, prior to the fall sports, are also published in the local newspaper and The Record. Any questions about school athletic examinations may be directed to the school nurse and/or the Athletic Director.

N.J.S.I.A.A. ELIGIBILITY REQUIREMENTS

To be eligible during the Fall and Winter seasons, a student must pass 25% of the state requirements for graduation. Presently this requirement for students grade is 24 credits; therefore, a student must pass 6 credits at the conclusion of the second semester or the conclusion of summer school. To be eligible for the Spring Season, a student must be passing 12.5% of the State requirements or 6 credits at the conclusion of the first semester. This applies to all students.

If a student is eligible at the start of a sports season, he/she remains eligible for that entire sports season regardless of his/her grades at the end of a marking period.

6th-12th GRADE GUIDANCE TEAM

Roy W. Brown School Counselors

Mrs. Marybeth Iorio
Mrs. Lana Restivo
Mr. Michael Merlo

B.H.S. School Counselors

Mr. James Butler
Ms. Lauren LaPorta
Mrs. Dana Massey
Ms. Estefania Valera
Mrs. Melissa Yoskowitz

The Guidance Mission is to assist students in maximizing their potential. Each counselor is specially trained to assist students in their career and educational planning. They are also available to help each counselee with his/her individual social and emotional development. It is the aim of each counselor to help each student make the most of the opportunities at Bergenfield High School, to know him/herself better, and to leave with realistic post-high school plans. Together they work to solve individual problems, plan course selections, review test scores, discuss student's plans for the future, and begin to make post-graduation plans and decisions.

The Guidance Staff has a responsibility to:

1. Help students discover their own potential and use their abilities in realistic long-range planning.
2. Make available appropriate educational and vocational materials.
3. Help students develop decision-making skills.
4. Help students keep abreast of developments in college entrance and career requirements.

Students have responsibilities to:

1. Seek appointments with their counselor
2. Use available materials
3. Be aware of school requirements
4. Attend college and career fair
5. Establish good attendance records
6. Be good school citizens. Each student creates his/her own record.

Parents/Guardians have responsibilities to:

1. Help students meet their responsibilities
2. Stress the value of regular and prompt attendance
3. Make known their hopes and aspirations to counselors and teachers early
4. Advise and guide their sons and daughters, but not to project their own vocational patterns
5. Participate actively in preparation for post-graduation years

The Guidance Staff arranges for fairs with representatives of many colleges, technical schools, and prospective employers each year and helps students in the process of selecting schools to which they may apply. College admission is granted to students at the discretion of the college admissions offices based on the student's academic records, test results, school participation, and the recommendations of the counseling staff and faculty.

The counselor and teachers are here to help a student get the most out of the high school experience. Students should talk with these staff members and use their knowledge and experience so as to achieve their greatest potential.

A tradition of BHS is that college acceptances and scholarships are announced at the public Board of Education meetings. If a student wishes NOT to be acknowledged at these meetings, he/she must notify their Guidance Counselor, the Director of Guidance, or the High School Principal in writing by September 30th of senior year.

CLASS STATUS

The Board of Education has designated grade level status by cumulative credit. The following are the grade level designations:

CREDITS

Freshman/Grade 9	0 - 5.99 credits
Sophomore/ Grade 10	6.0 - 11.99 credits
Junior/Grade 11	12 - 17.99 credits
Senior/Grade 12	18 or more credits

MARKING SYSTEM

A+	96.5-100
A	92.5-96.49
A-	89.5-92.49
B+	86.5-89.49
B	82.5-86.49
B-	79.5-82.49
C+	76.5-79.49
C	72.5-76.49
C-	69.5-72.49
D	64.5-69.49
E	64.49-01.00

GRADUATION REQUIREMENTS

SUBJECT AREA	CREDITS
ENGLISH (9-12)	4.0
PHYS. ED & HEALTH / DRIVERS ED. (required each school year enrolled)	4.0
SOCIAL STUDIES (including): <ul style="list-style-type: none"> · Modern World History /Geography · US History I · US History II 	3.0
MATHEMATICS	3.0
WORLD LANGUAGE- 2.0 credits required for graduation	2.0
SCIENCE (including): <ul style="list-style-type: none"> · Biology · 2 lab sciences 	3.0
VISUAL or PERFORMING ARTS	1.0
21 st CENTURY LIFE and CAREERS	1.0
FINANCIAL LITERACY	.5

TOTAL UNITS NEEDED TO GRADUATE 24.0

**All students must take a Financial Literacy Course*

SENIORS MUST SUCCESSFULLY COMPLETE ALL GRADUATION REQUIREMENTS PRIOR TO THE GRADUATION DATE IN ORDER TO PARTICIPATE IN THE GRADUATION CEREMONY.

WEIGHTED SCALES

<u>Grade Pt. Avg. Scale</u>		<u>Bonus Scale/Honors</u>		<u>Bonus Scale/Adv. Place</u>	
A+	4.33	A+	.08	A+	.1
A	4.00	A	.08	A	.1
A-	3.66	A-	.08	A-	.1
B+	3.33	B+	.06	B+	.08
B	3.00	B	.06	B	.08
B-	2.66	B-	.06	B-	.08
C+	2.33	C+	.04	C+	.06
C	2.00	C	.04	C	.06
C-	1.66	C-	.04	C-	.06
D	1.00	D	.02	D	.04
E	0	E	0	E	0

ADVANCED PLACEMENT COURSES (AP)

AP course credit will be given a greater weight for grade point average calculation purposes than will be Honors course credit. AP credit can be earned by a student who has completed an AP course at BHS, and has taken the Official AP Exam for the course, and has earned a score of 3 or higher on that exam. Students who take an AP course must take the AP exam. The Board of Education pays the fee for these assessments. Students who earn a score below 3 on the AP exam will earn honors course credit only. Traditionally, our students have done well on the Advanced Placement Examinations and have received advanced college placement based upon their scores. Students who are absent the day of the test are required to reimburse the Board for the cost of the test.

Weighted Courses:

ENGLISH	WORLD LANGUAGES
English 9 Honors	AP Spanish Literature
English 10 Honors	AP Spanish Language
AP Seminar/English 10	AP French

AP Language and Composition	Spanish 2 Honors
AP Literature and Composition	Spanish 3 Honors
MATHEMATICS	Spanish 4 Honors
AP Calculus AB	Spanish for Native Speakers 1 Honors
AP Calculus BC	Spanish for Native Speakers 2 Honors
AP Computer Science	French 3 Honors
AP Probability & Statistics	French 4 Honors
Algebra 2 Honors	French 5 Honors
Geometry Honors	AP Chinese
Pre-Calculus Honors	MUSIC
Calculus Honors	AP Music Theory
Multivariable Calculus	Symphony Orchestra Honors
SCIENCE	Wind Ensemble Honors
AP Biology	Music 1 Honors
AP Chemistry	Vocal Ensemble Honors
AP Environmental Science	Music Technology II Honors
AP Physics 1	
AP Physics C (Calculus based)	ART
AP Physics 2	
Anatomy and Physiology 1 & 2 Honors	AP 2D Art & Design
Biology Honors	AP 3D Art & Design
Chemistry Honors	AP Drawing
	Creative Video/Film Analysis 3H
SOCIAL STUDIES	TV/Film Independent Study 4H
AP US Government & Politics	BUSINESS

AP Art History	
AP Macroeconomics	Fundamentals College Accounting I Honors
AP European History	Fundamental College Accounting II
AP Human Geography	
AP Psychology	TECHNOLOGY
AP US History	AP Computer Science Principles
AP World History	Design Foundation: Architecture to Robotics III Honors
AP Microeconomics	
US History 1 Honors	
US History 2 Honors	
Modern World History/Geography Honors	

CLASS RANK

Rank-in-class is determined by listing all students in a grade from highest to lowest-the highest GPA is ranked #1, the second highest is ranked #2, etc. The Weighted Rank will reflect the additional GPA points given for weighted courses successfully completed. To be included in class rank, a student must be in attendance at Bergenfield High School for a minimum of two full years prior to the first semester of senior year, have passed the New Jersey Student Learning Assessment (NJSLA) in both English/Language Arts and Mathematics, and have taken all required courses. I.e. a transfer student would need to transfer in by second semester of sophomore year to be considered in class rank. Only courses taken at Bergenfield High School will be calculated in class rank. Class rank will be available at the end of junior year and the final rank at the conclusion of 1st semester of senior year. Class rank is not re-calculated at the end of senior year. A student who has not met the requirements to be given a class rank will be given an estimated class rank upon request. Questions regarding GPA and Rank In Class should be referred to the counselor or Director of Guidance.

ADDITIONAL REQUIREMENTS FOR ALL CLASSES

1. Physical Education must be passed each year a student is in attendance at the high school.
2. In addition to course requirements, each student is required to meet the benchmark for one of the NJSLA Pathways.

HONOR ROLL

A student must have all of the following:

- 1) GPA of 3.3 or higher
- 2) have 5 or more classes
- 3) cannot have a grade lower than a B- in any of their courses

HIGH HONOR ROLL

A student must have all of the following:

- 4) GPA of 3.7 or higher
- 5) have 5 or more classes
- 6) cannot have a grade lower than a A- in any of their courses

PASS or FAIL EVALUATION PROCEDURE

If you are concerned about attempting a course which could negatively affect your grade-point average and rank-in-class, you might wish to consider the Pass-Fail option. Students electing the Pass/Fail option for either full or half year courses have until a week following the day that the marking period 1 report cards are first issued to exercise this option.

Decisions concerning courses only one marking period in length must be made within the first two weeks of the course. Once the decisions have been made, there will be no opportunity to change the type of grading procedure selected.

All Academic required courses may not be taken for a pass/fail grade

1. DEFINITION: Pass-Fail evaluation means that a student will receive a “P” or an “E” as an evaluation of work in a course, with a final evaluation of “P” granting credit for the course. A “P” grade will not be used in computing the student’s grade-point average or class-rank. A student who receives a grade of “E” will not be given credit for the course. The “E” will be computed as a failure and will be used in grade point average calculations and class rank. Any student electing a Pass-Fail evaluation must complete all required work for the course, including homework, tests, reports, etc. in order to receive a “Pass.” Teachers will mark Pass-Fail students just as they mark other students. When report cards arrive, however, such students will have marks of A, B, C, or D recorded as “P” on their report cards. A failing mark will be recorded as “E.”
2. Each student may elect to take one course as Pass/Fail during each of their years at Bergenfield High School. Students wishing to take two or more Pass/Fail courses in

the same year must obtain administrative approval. All Pass/Fail selections require parental approval.

Students desiring to elect the Pass-Fail option must present to the appropriate classroom teacher a Pass/Fail Request Form which may be obtained from the Guidance Counselor.

OPTIONS FOR DROPPING COURSES

1. From the time course selections are made until the date announced by the Principal of the high school a student may change his/her course selections. No changes will be made once school starts unless there is an error in the schedule. Students, however, must maintain a minimum of seven units of credit for the year.
2. If a student drops a class after the designated time, and after the semester starts his/her transcript will have a "WE" (withdrawn failing) recorded as a final grade.
3. Any student who wishes to drop a course must obtain a drop form from his/her guidance counselor and have it signed by student, parent(s), teacher and counselor and Principal.
4. Attention seniors: Please be advised that if a course is dropped after the designated time period, colleges will be notified of this change in your academic program.

SUMMER SCHOOL

Bergenfield offers summer school to its own students. In order to obtain credit for a summer school class students must take and pass the course at Bergenfield or another approved summer school. If the parent wishes to send their child to another school and receive credit for the course, they must receive prior written permission from the Director of Pupil Services or his representative.

NINTH GRADE ACADEMY

Mission Statement

The Ninth Grade Academy will assist incoming freshmen in making a smooth and successful transition to the rigorous standards of Bergenfield High School. A support system consisting of an administrator, guidance counselor, and teaching staff, will offer academic, social and emotional assistance needed in order to promote success and achievement. It is our goal to develop respectful, responsible, dedicated students who

are highly motivated to reach their potential within a rewarding educational experience. Students are encouraged to pursue individual excellence amid a positive, supportive environment designed to foster energy and enthusiasm for learning.

Goals

- Create a learning environment conducive to the needs and of students based on previous academic achievements and factors affecting learning.
- Recognize student strengths and develop lessons, programs and learning opportunities that promote academic, personal and social progress.
- Implement a series of programs designed to foster a supportive transition from middle school to high school.
- Utilize learning and career inventories to develop a pathway toward obtaining a meaningful career.
- Develop students organizational and time management skills to encourage independence and responsibility.
- Decrease rate of student failures/increase rate of passing academic subject area classes.

CAREER PATHS

1. Science Technology Engineering Math (STEM)
2. Health Careers Program of Study
3. Green Technology in conjunction with Bergen County Technical Schools
4. Business Management and Administration

1. SCIENCE TECHNOLOGY ENGINEERING MATH (STEM)

I. Purpose:

The Bergenfield School District's Science, Technology, Engineering, and Mathematics (STEM) Program Student/Faculty Manual has been designed as a reference guide for students, parents and faculty. This manual outlines and describes the basic guidelines, requirements, deadlines, etc. of the BHS STEM Program.

II. Introduction to STEM:

Today's job market is ever-changing due to our society's increasing dependence on, and expansion of new technology. Education itself is changing in order to keep pace and meet the future needs of our students. The parents of our gifted middle school students are well aware of their children's needs and research all the options available for their high school experience.

The Bergenfield STEM Program offers specially designed curriculum tracks for the most promising high school students in our District who are seriously considering a career in the STEM fields. If accepted into the STEM Program, students will be required to; maintain a “B” or better average in a set curricula of advanced coursework, work with an advisor over a 4-year period to design, conduct, and present the findings of a technical research project, and participate in at least one related state or national competition.

Students successfully completing this 4-year program will not only receive course credit for completing one of the most rigorous science and mathematics curricula available, they will experience “hands-on” primary research and graduate with “Elite” status.

III. Program Goal:

The primary goal of the STEM Program is to offer an accelerated curriculum track for our gifted students who are considering careers in the life science and engineering fields. The STEM program will prepare students for engineering-oriented colleges and eventually, successful integration into today’s ever-changing technological job market.

IV. Program Specifics:

A. Student Selection (Refer to Appendix A):

1. Students must apply for acceptance into STEM.
2. Minimum qualifications for admission into the STEM Program:
 - a. Successful completion of Algebra 1 (B or better)
 - b. ASK 7 (or equivalent) scores of 230 and above
 - c. Successful completion of an entrance Exam
 - d. Successful panel interview.
3. Enrollment will be limited to 10-15 students per grade level.

B. Curriculum:

1. General:

It should be noted that all courses are made available to any BHS student and are not limited to STEM participants. However, STEM students will be given priority in ensuring that they are enrolled in required coursework each semester. STEM Students will be provided latitude in designing their complete curriculum around their required courses.
2. Required Coursework :

STEM skills are required in nearly every aspect of a student’s education. Students may design their particular course of study to

suit their individual needs, from the arts to the sciences. The following is a table of courses required for the BHS STEM curriculum:

YEAR	SCIENCE	MATH	TECHNOLOGY
YEAR 1 (Freshmen)	AP Environmental Science and Honors Chemistry	Algebra II or Geometry	
YEAR 2 (Sophomores)	AP Chemistry and Honors Biology	Algebra II (If student took Geometry in year 1) or Pre-Calculus	AP Computer Science Principles
YEAR 3 (Juniors)	AP Biology and <hr/> AP Physics 1 or 2 (depending on which is being offered)	AP Calculus AB/BC (If student took pre- calculus in year 2) or Pre-Calculus	
YEAR 4 (Seniors)	AP Physics C or AP Physics 1 or 2 (If student took AP Computer Science Principles in year 3) or Any other Science Elective (Anatomy, Medical Terminology, Forensics, Marine)	AP Calculus AP/BC (If student took Pre- calculus in year 3) or AP Statistics	AP Computer Science A

Once fulfilling the core requirements, students have the flexibility to specialty electives. These include Marine Biology, Forensics, Anatomy and Physiology, Medical Terminology, Robotics, and Scientific Principles of Nutrition.

C. Research Project:

1. General:

STEM students must work with an advisor over a 4-year period to design, conduct, and present the findings of a technical research project.

2. Portfolio, Journal, and Work Log (Refer to Appendix B):

a. Students must maintain an organized portfolio of all

research-related work performed throughout his/her experience. This will include any notes, interviews, activities, research studies, etc. as they pertain to the project.

- b. A running journal is also required and will serve to help organize the work.
- c. It is the student's responsibility to document his/her hours of research-related study in a work log book.
- d. Advisors will assist students in setting up their individual portfolios, journals, and work log books.

3. STEM Pass/Fail Marking Period Grade:

- a. Assessed by a mentor-created rubric system, students will receive a pass/fail grade each marking period based on, but not limited to their portfolio, journal and work log submissions. Students will be receiving 1.0 credit hour per year through a BHS Independent Project (IP), weighted as an honors course.
- b. Along with ongoing formative assessment of student Progress, advisors will provide their students with a summative assessment at the end of each marking period.

4. Deliverables and Deadlines

- a. Year 1 - Investigation and Selection of Research Topic:
Students will work both independently and under the direct supervision of their mentor for a minimum of 3.5 hours per week to investigate and select a primary research question. A summary report (5-10 pages) must be submitted to the mentor by the last week of the 2nd marking period. Students will then conduct an extensive literature search of a topic of interest. Students must log all time spent on this effort in order to receive credit for this effort.
- b. Years 2 & 3 - Essay Defense / Project Design & Research:
Students will prepare and defend a topic-related critical essay (15 – 20 pages) to a committee of STEM mentors during the second marking period of their second year. In the remainder of their second and third year, students will work with their mentor, and possibly, outside experts to design and conduct a technology-based research project. Students will be encouraged to work with affiliate colleges and/or universities. Students will continue to provide their mentors with on-going reports documenting efforts (minimum 3.5 hrs/week) and research findings in order to receive credit.

c. Year 4 - Presentation of Research Findings:

In their final year, students will work with their mentor to compile their research findings (Thesis: 20 – 30 pages) and present them in a “defense-style” dissertation before a panel of STEM Mentors and outside experts. Work logs must document efforts of no less than 3.5 hours/week.

D. Special Priority Requirements

1. Monthly Priority Day: On the first Tuesday of the month, ALL STEM students will be required to meet as a group (3:05pm – 4:05pm) in room 210. The purpose of these sessions is to ensure that all participants are aware of, and keeping pace with, requirement deadlines.
2. Technology Seminars: All first year STEM Students must attend a minimum of five technology and engineering seminars to be held at FDU’s Teaneck Metropolitan Campus. These sessions are run on Saturday mornings during the spring semester.

E. Competition Requirements:

1. General: Students will be required to participate in at least one State or National Competition.
2. Options: Students may choose from the following:
 - a. Junior Science and Humanities Symposium at Rutgers
 - b. STEM C2 Research Summit at Bergen Community College
 - c. Chemistry Olympics
 - d. North Jersey Regional Science Fair

2. HEALTH CAREERS ACADEMY

The mission of the Bergenfield High School Health Career Academy is to provide a rigorous and relevant academic/exploratory program of study for students wishing to pursue higher education with a career in health professions.

HEALTH ACADEMY COURSE PATHWAY FULFILLMENT: In order to graduate with a distinction as a Health Careers student, each student must achieve a final grade of 80 or above in each of the following courses in the Health Career Course Pathway:

- Dynamics of Healthcare
- Medical Terminology
- Anatomy and Physiology

Plus completion of one of the following upper-level Science courses:

- Anatomy and Physiology II
- Scientific Principles of Nutrition
- Forensics
- Chemistry Honors (B)
- AP Biology or AP Chemistry or AP Physics

STUDENT SELECTION: 8th grade students from Roy W. Brown Middle School who express an interest in studying or working in the health professions are eligible to enter Bergenfield High School as a Health Careers Academy student. These students will become oriented to the exploratory portion at the end of their 8th grade year and can begin on-site job shadowing experiences during their freshman year. The academic portion of the program will begin for most students in 10th grade.

POSTSECONDARY PARTNERSHIPS: The Bergenfield High School Health Career Academy works in conjunction with Bergen Community College, Ramapo College, Englewood Hospital Medical Center, and the University of Medicine and Dentistry of New Jersey (UMDNJ) to provide students with the opportunity to earn college credit for course work completed during the course of the school day. Graduates of the Health Career Academy may choose to continue their educational pathway at BCC or Ramapo.

Programs offered at Bergen Community College include:

- Dental Hygiene
- Nursing
- Radiography
- Respiratory Therapy
- Sonography
- Veterinarian Technician
- Radiation Therapy
- Surgical Technician

EXPLORATORY PROGRAM/COMMUNITY SERVICE: Every student is required to complete a minimum total of 50 hours of community service while a student in the Health Career Academy. These hours can be fulfilled through volunteer service at Englewood Hospital Medical Center. Those students who do more than 50 total hours will be recognized for their service through Bergenfield High School community service program. For every 30 hours above the 50 required hours students may earn .25 elective credit and a maximum 1 elective credit per calendar year. Each student must obtain pre approval for these additional hours and follow the community service procedures which includes keeping a log and having a supervisor.

Course of Study

Grade 9

<u>Core Courses</u>	<u>Pathway Options</u>
English 9 or English 9 Honors	No Specified courses
Modern World History or Modern World History Honors	Begin Exploratory hours at Englewood Hospital
Math	
Science: Either Physics or Biology Honors	
World Languages	
PE/Health	

Grade 10

<u>Core Courses</u>	<u>Pathway Options</u>
English 10 or English 10 Honors or AP Seminar	Dynamics of Healthcare
US History I or US History I Honors	Medical Terminology
Math	
Science: Either Biology or Chemistry Honors/AP	
World Languages	
PE/Drivers ED	

Grade 11

<u>Core Courses</u>	<u>Pathway Options</u>
English 11 or AP Language and Composition or AP Literature and Composition	Anatomy and Physiology
US History II or US History II Honors or AP US History	
Math	

Science: Either Chemistry or AP Biology, Chemistry or Physics	
World Languages	
PE/Health	

Grade 12

Core Courses	Pathway Options
English Composition or AP Language and Composition or AP Literature and Composition	Anatomy and Physiology II
PE/Health	Scientific Principles of Nutrition
	Forensics
	Any AP Science Course

3. GREEN TECHNOLOGY PROGRAM

Bergenfield Public Schools and Bergen County Vocational Technical Schools have designed a shared-time pilot program at Bergenfield High School geared toward identifying Students who would benefit from an innovative approach that integrates real-world, hands-on project work (Green Tech experience) with academic instruction. The themes of green technology, current environmental issues, and sustainable design are to be used as the foundation for the instructional process.

Students in this interdisciplinary program would have their science, social studies, and a career and technical lab integrated together during 3 class periods daily. As part of this experience, students will work on real-world projects such as designing and constructing new energy-efficient devices such as solar powered vehicles, state-of-the-art water purifiers, and sustainable agriculture systems. Concepts taught in both the academic and Green Tech classrooms will provide students with the necessary background to apply what they learn in these types of projects.

Four-Year Course Sequence

The four year program integrates real world design challenges into technical content that motivates students to design and create a sustainable future. Students will gain the

basic knowledge of design principles similar to that of a standard pre-engineering program. However, the continuous theme of sustainability will guide students through design challenges in energy/transportation, materials technology, and environmental management.

Year One

Fundamentals of Sustainable Engineering and Technology

This course aims to introduce students to the beliefs, philosophies, and scientific principles that support a more sustainable world. Through project-based learning experiences, students develop their basic understanding of the world around them with particular interest in how we use energy, materials, and resources to design, build, and power our world. Initial explorations focus on their connections to the natural world and the extent to which human activity impacts it. Building on these concepts, students design and build a model that embraces the science, ethics and efficiency standards that correspond with sustainable practices to demonstrate a means to mitigate human impacts.

Year Two

Solar/Environmental Resource

Students will learn the basics of engineering design and begin creating sketches and documentation. This course serves as an introduction to the basics of CAD using *Google Sketchup*. This course will allow students to utilize the design process to compete to make a solar cooker, solar powered race car, design and build a solar panel, and design an off-grid PV system. This course counts toward the state requirement for one unit in career education required for graduation.

Year Three

Fundamentals of Wind and Water

This course aims to introduce students to other forms of alternative energy as well as the global water crisis. The students are first engaged in a collaborative effort to research solutions, identify constraints and criteria, develop a plan/approach, document, draft, prototype, evaluate, refine, create, implement and present the best wind turbine for a proposed application. The students are then introduced to the importance of water in our world and will explore water-based issues. Building on these concepts, the students will design and build a water filtration device and a hydropower project. This course fulfills the state requirement for one unit in career education required for graduation

Year Four

Senior Design Capstone Project

The Senior Capstone Design Project is designed to engage students in an individualized learning program that builds upon their technical, academic, aesthetic, and professional abilities. The students will research and choose an area of interest and be assessed on their ability to design, create, implement (engage the community), monitor, and evaluate a product or a process that improves sustainability and/or energy efficiency. The result will be an original, useful project that focuses on a specific area of interest. In addition, this course will be a dual credit course with Stockton College. The curriculum for Stockton's Introduction to Sustainability course will be followed. Students will have the option of taking this course through Stockton College to potentially receive 4 college credits.

All Green Technology courses will be delivered in a "state of the art" classroom complete with renewable energy demonstrators that will allow students to design, build, and test systems that utilize solar, wind, hydro, and biofuel power.

Elective Course
Engineering Course

The CTE Engineering Course is designed for students in grades 10-12 that are interested in the Green Technology Program, but who may or may not be able to complete a multi-year course. This course is hands-on, project-based and engineering design process intensive. Students will develop a basic understanding of the world around them with particular interest in how we use energy, materials, and resources to design, build, and power our world. Initial explorations focus on their connections to the natural world and the extent to which human activity impacts it. Building on these concepts, students design and build a model that embraces the science, ethics and efficiency standards that correspond with sustainable practices to demonstrate a means to mitigate human impacts. If the student decides that they would like to continue on with the program after completing the Engineering Course, they may use this course to count towards the Year One or Year Two curriculum and move on to Year Two or Year Three.

[INDEPENDENT STUDY PROGRAMS](#)

Independent Study Programs are available to all students for the purpose of studying new or different subjects not already offered as part of the regular curriculum. Individual programs are contingent upon a staff member's willingness to voluntarily develop an appropriate curriculum and monitor its implementation. Interested students should discuss this option with their guidance counselor.

[ART](#)

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[Sculpture](#)

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[Television Studio Production I](#)

[Television Studio Production II](#)

[TV/Film Independent Study 4 H](#)

[Creative Video/Film Analysis 3H](#)

All Art students are required to compile a note/sketchbook that will include assigned sketches/drawings and/or notes, reference assignments, classroom lecture notes, clippings, and local field trip reports as determined by the instructor. Non-submission will mean failure in the course.

FOUNDATION COURSES

Foundation courses are the basic fundamental entry level offerings in the Art Department.

[Artscope](#)

751

1 Unit

Artscope is the foundation course in art. This means it is the basic preparation course directed toward providing students with an understanding of the principles and elements of design as they apply to a varied spectrum of art experiences such as: painting, drawing, printmaking, ceramics and crafts. Emphasis will be placed on sensitizing the student to the nature of personal and independent means of expression. Also included will be the history of art to demonstrate the interrelationships of art and man throughout history and to his environment today. Counts as visual and performing art credit.

Grade: 9, 10, 11, 12

Prerequisite: None

[Art Prep](#)

791

.5 Unit

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Art Prep is a special half year foundation course in art for Grades 11 and 12 only. It is designed as an abbreviated Artscope experience for upperclassmen who wish to pursue advanced art course work or need an art background for later liberal arts studies. Course requirements will be similar to those in Artscope with emphasis on design and drawing. Counts as visual and performing art credit.

Grade: 11,12

Prerequisite: None

FINE ARTS

The FINE ARTS are defined as those areas that reflect and comment upon man's visual response to the society and environment in which he lives and works. They encourage the development of an individual and personal form of expression through exposure to and experience with a wide range of materials, techniques, and processes. Counts as visual and performing art credit.

Drawing and Printmaking

752

1 Unit

Drawing is the initial base for most creative expressions in the fine and applied arts. This course is designed to teach the student how to "draw" by developing their motor skills and natural abilities to observe and appreciate the aesthetics of their environment. Learning to "see" and the exploration of a range of drawing problems in a variety of media (pencil, ink charcoal, pastel, wax, and oil crayons) will be emphasized. Attention will be directed toward various subject matter (natural, architectural, and found forms) in figurative, abstract and nonobjective compositions. Emphasis on the development of surface characteristics of line, shape, value, and texture will be stressed.

Printmaking will be an added major unit in drawing and will be devoted to creating multiples, the art form in which it is possible to produce more than one example of a given idea. Emphasis will be on the application of drawing to printmaking and on gaining experiences in several graphic media within the 5 major fields of printmaking: relief, intaglio, planographic, stencil and monotypes. Covered will be those techniques, processes and methods needed for the creation of plates, the making of proofs and the pulling of editions. Special emphasis will fall upon the handling of unique equipment, tools and supplies and necessary safety support systems. Areas in both drawing and printmaking will be contrasted against historical forms. The second semester will focus

on more advanced skills in both Drawing and Printmaking and creating quality pieces for submission into various Art Shows in the surrounding area. Counts as visual and performing art credit.

Grade: 9, 10, 11, 12

Painting

754

1 Unit

Painting problems will evolve from the design foundation set through drawing but with color assuming the primary role. This will be studied through a series of exploratory lessons in various painting media particularly in transparent and opaque watercolor, later in acrylics, and be culminated in the development of personal independent works. The major emphasis will be on individual expression of the student as she/he works, and that of artists who have worked throughout history. Additional emphasis may be placed on the development of painting seen as a sequential progression of schools and approaches. The second semester students' will learn more advanced skills that will translate into creating quality Art work for submission into various Art shows in the surrounding area. Counts as visual and performing art credit.

Grade: 9,10,11,12

3-D Designs in Sculpture

757

1 Unit

The students' will have experiences in 3 dimensional design with major emphasis placed on problems of form, spatial and environmental relationships, and the development of skills in the handling of new materials, and equipment. All students may explore and work out problems in 3 major sculptural areas: (1) additive (clay, plaster, wire); (2) subtractive (wood, stone, clay, styrofoam, plaster w/vermiculite); and (3) assemblage (constructions with found materials). The second semester will focus on more advanced skills where students can transfer their learning into quality pieces of art that will be submitted during various Art shows in the surrounding area. Counts as visual and performing art credit

Grade: 9,10,11,12

APPLIED ARTS - COMMERCIAL AREA

The APPLIED ARTS areas of the program reflect places where art is applied to both vocational and avocational interests. The emphasis in these courses will be on the interrelationship between art and other disciplines, e.g., journalism, the media, social studies, language, literature, etc., and in product development that has possible career orientation. The elements and principles of design will act as a foundation for creative work. Students will explore a wide range of art activities in multiple, graphic and media sections. Though the nature of these courses will be exploratory, specific emphasis will be placed on concrete product development that will incorporate skill refinement with tools, processes, techniques, equipment and the utilization of a system of product development: its conception, planning, how it is implemented, refined, manufactured, and finally, assessed. Counts as visual and performing art credit.

Fashion Design, and Advertising 784

1 Unit

This course is geared to provide the student with an opportunity to explore careers in Fashion and Advertising. Emphasis will be placed upon drawing from life and from costumed models as well as practice and skill development using a diversity of methods, techniques, and special materials. Also developed will be the student's knowledge and understanding of the aesthetic principles and skills involved in Fashion Design and Advertising. Work will cover some aspects of merchandising and the study of accessories. The use of technology will be pursued whenever possible to explore trends in fashion and advertising in today's 21st Century work world. The second semester of the year students will focus on Advertising, Design, and Layout skills that will introduce students to the concepts used in a wide range of commercial art applications. By encouraging students to arrive at original creative solutions to ordinary commercial assignments, conceptual problem solving characteristics of the visual image and how these images communicate information and emotions will be explored. Students will gain practical working experience using digital and traditional techniques, materials and processes to develop layouts, paste-ups and mechanicals for advertisements, brochures, packaging design, logotypes, CD covers and posters. Graphic Design's historical role, as a means for visual communication through the use of digital technology, computers, software, typography, composition, color theory and various media will be covered. Counts as visual and performing art credit.

Grade: 9,10. 11. 12

**Attempts will be made for both of the commercial offerings to enlist the services of a professional artist in some of the above-mentioned areas to explain career opportunities and to encourage them to further explore commercial avenues of art. Field trips may be taken to agencies and other establishments to provide students with exposure to commercial studies.*

APPLIED ARTS - MEDIA AREA

Television Studio Production I 793 1 Unit

This is a full year course designed to introduce students to television studio production. The class will utilize a fully functional television studio and computer lab to gain practical experience of the technical and aesthetic concepts necessary to produce, write, edit, report and televise regularly scheduled shows. Broadcasts will feature a “News / Magazine style program and highlight school news, student editorials, student achievements, current events, sports and community events. This is a rigorous course and will require after school time as well as weekends to write, report, film, edit and produce scheduled broadcasts to the school and community. Students who sign up for this course should have a strong interest in writing, research, video, sound engineering, computers, editing, lighting and on - air reporting. Counts as either visual and performing art credit or career education credit.

Grade: 9, 10,11,12

Television Studio Production II 794 1 Unit

This is a full year advance course that will provide those students who have successfully completed “Introduction to TV Production” with the opportunity to develop advanced skills and gain additional knowledge of the art of TV Production. Emphasis will be placed on all aspects of producing a finished show from creative development of conceptual ideas to the technical skills required to film, edit, light and record feature stories for broadcast. This is a rigorous course and will require after school time as well as weekends to write, report, film, edit and produce scheduled broadcasts to the school and community. Students who sign up for this course must have experience in writing, research, video, sound engineering, computers, editing, lighting and on-air reporting. Counts as either visual and performing art credit or career education credit.

Grade: 10, 11, 12

Prerequisite: Television Studio Production I with a “C” or better passing grade.

Creative Video/Film Analysis 3H 790 1 Unit (Weighted Credit)

Creative Video/ Film Analysis is a full year course, which takes an in-depth look into film as a technical craft where students will critique and analyze films based on the film’s production, genre, history, content, and representation. Students will be expected to participate in groups where they will be creating their own creative video, relating to the genre discussed in class. They will be required to follow the stages of the pre-production, production, and post-production process to create a finalized short video. At the end of the year, students will be required to showcase their work at

multiple film festivals and at a "mini-academy awards" ceremony, where they will be receiving awards relating to their specific jobs in the creative video process.

Programs: Final Cut Pro, Motion 4, Garageband, Soundtrack Pro, Pages (script writing, storyboarding)

Counts as either visual and performing art credit or career education credit

Prerequisite: TV 1 and TV 2 with a passing grade of C or better.

TV/Film Independent Study 4H

795

1 Unit (Weighted)

Students will be involved in an advanced Television/filmmaking experience and enhancing their portfolios through possible internships, site visits and production locations, and entrance into area film festivals. Students will be required to propose a research topic and develop a finalized film. Counts as either visual and performing art credit or career education credit

Prerequisite Television IV: Television Production I,II & III with a "C" or better grade.

Digital Photography

788

1 Unit

This course will introduce students to the technical skills and artistic concepts of Digital Photography in today's world. Emphasis will be placed upon advanced traditional concepts and techniques with the camera and in the darkroom as well as creating photographic images with the computer. ***The second semester will give students the chance to learn advanced skills and allow for students to become proficient in such programs as Photoshop, InDesign, as well as other state of the art programs in Digital photography today. Course requirements will necessitate assignments beyond classroom activities.*** Counts as visual and performing art credit.

Grade: 9, 10, 11, 12

APPLIED ARTS-CRAFTS AREA

Courses in the craft areas where design concepts and principles will be applied to the creation of utilitarian objects have been set up to provide interested students with a diversified background in the field of handicrafts that meets their present needs and stimulates interest in later leisure time activities or further advanced study. Emphasis will be on the development of the historical role of crafts, the role of crafts in contemporary society, and the role of the individual and individual expression in crafts design. Stress will be placed on the development of technical skills, processes, good craftsmanship, and care and respect for tools and equipment.

Ceramics**761****1 Unit**

The first part of the course students' will learn the introductory skills in Ceramics which consists of a wide range of varying ceramic processes and skills. Emphasis, initially, will be divided between design and construction with the former constituting a variety of methods for hand built work: slab, coil, mold, and combinations; and later into basic potters' wheel problems. As technical skills develop, the more advanced students will progress to different levels that will include glazing, under glazing, sgraffito and slip decoration, kiln loading operation, and firing, and the more complicated wheel problems. Ceramic history, technical information on the nature and properties of clay bodies and on the commercial and industrial implications of ceramics will be presented throughout the course via class discussions, prints, films and slides. The second semester will focus in on more advanced skills in Ceramics. As technical skills develop, students will develop design problems using the potter's wheel and hand building techniques to construct various forms to include, but not limited to, a bowl, plate, covered container, pitcher, and teapot. Class critiques individual assignments and field trips can be expected. Sketchbook maintenance will be required. Counts as visual and performing art credit.

Grade: 9, 10, 11, 12**INDEPENDENT STUDY IN ART****Art Lab****774/776****.5 Unit**

Bergenfield's Independent Art Study Program is a major course aimed at providing highly motivated and advanced students an opportunity to work in an independent and self-controlled program. Emphasis will be on the development of versatility with varied media, of technical competency and the ability to form individual expressive products through involvement in selective art processes. This program stresses individual initiative and the forming of productive and independent work habits. Written papers and readings are required as is participation in group critiques and individual exhibitions. Supervisor's permission is required and can only be obtained by submitting to the department a portfolio of a varied selection of all recent work. After permission has been obtained, specific problems through a contract system will be set up via an agreement with the teacher of the specific area to be covered. Critiques by fellow students will also be scheduled. Sketchbook maintenance in a weekly log book will be required. Counts as visual and performing art credit.

Grade: 11, 12**Prerequisite:** At least 3 semesters of art coursework, a grade of B or better and the permission of the Art Department.**AP Drawing****770****1 Unit (Weighted Credit)**

In AP Studio Art 2D, students will create a portfolio of a minimum of 24 artworks that demonstrate an understanding of design principles as applied to a two-dimensional surface. Any 2D medium may be submitted, including, but not limited to, graphic design, photography, collage, fashion design, illustration, painting, printmaking, etc.

Grade: 11, 12

Prerequisite: At least 3 semesters of art coursework

[AP 2D Art and Design](#)

775

1 Unit (Weighted Credit)

In AP Studio Art 3D, students will create a portfolio of a minimum of 20 artworks that address engagement with physical space and material. The work should demonstrate an understanding of design principles as they relate to depth and space. These issues can be explored through additive, subtractive, and/or fabrication processes, including, but not limited to, figurative or non figurative sculpture, architectural models, ceramics, 3D fiber arts/fashion, jewelry, and body adornment.

Grade: 12

Prerequisite: At least 3 semesters of art coursework.

[AP 3D Art and Design](#)

780

1 Unit (Weighted Credit)

This aspect of the Art Lab program is designed as an Advanced Placement course for seniors requiring the compilation of a portfolio for those students motivated toward a vocational career in the visual arts. It will reflect 3 major concerns that are constants in art education: (1) a sense of quality in a student's work; (2) a personal preoccupation in depth on the part of the student with a particular mode of working, thinking, and stating; and (3) the student's need for a variety of experiences in the formal, technical, and expressive means of the artist. Advanced Placement work should reflect these areas of concern: quality, concentration, and breadth.

A major component of Studio in Art will be a survey of the History of Western Art designed to acquaint the student with the unique relationships that exist between man and art in traditional and contemporary terms. Emphasis will be placed upon art as a basic expression of man's spiritual, emotional, and social needs, but coverage will include such diverse areas as: art as an outlet for social protest, art as decoration, art as pure concept, and others. Activities will include slides, films, museum and gallery trips, and an introduction to various art materials. Counts as visual and performing art credit.

Grade: 12

Prerequisite: At least 3 semesters of art coursework.

[BUSINESS AND MARKETING EDUCATION](#)

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[International Business](#)

[IP STEM Project](#)

[Sports Fashion, Recreation and Entertainment Marketing](#)

[Marketing I: Marketing Essentials](#)

[Finance and Money Management](#)

[Business Dynamics](#)

501

1 Unit

This introductory course is designed to help students develop an understanding and appreciation for our American business and economic system. It will introduce students to the business world by helping them prepare for their roles as consumers, workers and productive citizens. This course will also serve as background for future business courses that students might elect in high school and college. It will assist them with consumer decision-making, prepare them for future employment, and help them understand the global marketplace. ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 9,10,11,12

Prerequisite: None

[Fundamental College Financial Accounting and Reporting Principles 1 Honors](#)

500

1 Unit (Weighted)

This course is an introduction to financial accounting within the framework of business and business decisions. The course provides an in-depth analysis of financial statements (the balance sheet, income statement, statement of stockholders equity and the statement of cash flows) and annual reports of publicly traded companies. Students are introduced to accounting principles and the accounting cycle of proprietorships.

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Topics include financial statement preparation, inventories, receivables, payables, plant assets, accruals, deferrals, accounting systems, and cash control. The theoretical foundation and basic accounting terminology are addressed. The course should enable students to critically analyze accounting information from an investor's or creditor's perspective. Use of Quickbooks Accounting applications are included as part of the course. This class would be offered for those students who plan further study in the field of accounting and business. The opportunity to earn three college credits through Fairleigh Dickinson University's Middle College Program (dependent upon their approval) would also be available. FDU's Middle College Program credits are currently accepted by a number of colleges both here in New Jersey and other states. Many colleges offering business degrees currently require two Accounting classes as part of their degree requirements. This accelerated course uses a college-level textbook. This course fulfills the state requirement for one unit in career education required for graduation

Grades: 9 (department chairperson approval), 10, 11, 12

Fundamental College Accounting II Honors **505** **1 Unit (Weighted Credit)**

This class would be offered for those students who plan further study in the field of accounting and business. The opportunity to earn three college credits through Fairleigh Dickinson University's Middle College Program (dependent upon their approval) would also be available. FDU's Middle College Program credits are currently accepted by a number of colleges both here in New Jersey and other states. Many colleges offering business degrees currently require two Accounting classes as part of their degree requirements.

This accelerated course uses a college-level textbook. This course is a continuation of Fundamental College Accounting I Honors, and introduces corporation accounting, investments, bonds and equities.

Prerequisite: 500-1 Fundamental College Financial Accounting I Honors

Sports, Fashion, Recreation, Entertainment, Marketing **504** **1 Unit**

This specialized course is recommended for students with a career interest in the fields of sports, entertainment, recreation (travel and hospitality services) fashion, or recreation. Business and marketing plans will be devised, advertising will be developed, and social and ethical responsibilities will be discussed. In addition to providing a

fundamental knowledge of national and global marketing, this course is designed to equip students with entry-level competencies in the areas of sponsorship, promotion, legal contracts, event marketing, hospitality, and communications. Various relevant career options will be explored within these fields. Critical thinking and decision-making skills will also be developed. Group activities as well as online virtual simulations will be used throughout the school year. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 9, 10, 11, 12.

Prerequisite: None

**Marketing I:
Marketing Essentials**

506

1 Unit

This full-year course will emphasize computer technology, global marketing, and marketing for business. In an overview of marketing, the following will be developed: ethical decision-making, entrepreneurial and leadership skills, use of portfolios, and critical thinking skills. Various relevant issues and topics will be addressed via activities and projects. Group activities as well as online virtual simulations will be used throughout the school year. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 09,10, 11, 12

Prerequisites: None

Business Law and Ethics

508

1 Unit

This full year course will introduce students to an important growing area of study in business education. Ethics, employment and sales contracts, credit, property, agencies of the federal government, partnerships, bankruptcy, and personal law for today's consumer will be covered. Students will be required to solve legal problems. Also, they will be able to develop a legal vocabulary and learn how to interpret cases and relationships. A planned visit to the county jail and courthouse will highlight the course. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 10, 11, 12

Prerequisite: Marketing 1 or Business Dynamics

International Business

512

1 Unit

This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

Grade: 10, 11,12.

Prerequisite: None

**Finance and
Money Management**

516

1 unit

Within any economy, an individual achieves income, manages money, spends, receives credit, saves and invests. Students will learn to become financially literate and financially secure today and in the future. Students in this course will learn to set financial goals, use credit wisely, develop a spending plan, plan for college, save and invest effectively, make positive career choices, and protect their assets against risk as they begin to build net worth. They will understand economic issues and have the knowledge, skills, and confidence to take charge of their financial future and prosper. This course fulfills the state requirement for one unit in financial literacy required for graduation.

Grade: 9, 10,11,12

Prerequisite: None

Business Communications

503

1 Unit

The Business Communications course will teach the components of effective communication theories and practices for success in a business environment. Students will develop a foundation of communication skills to deliver both written and oral outcomes. This foundation will help students communicate effectively with the creation, review and delivery of business memos, business letters, professional emails, reports, charts and oral presentations--both on an individual and collaborative basis. Essential rhetorical and language arts skills will be emphasized through assignments. This Business Communication course will enhance a student's communication skills by using technical applications and media to deliver messages, presentations and reports. The technical skills of using Microsoft Office 365 will be taught in addition to skills using Google Apps and Platforms as the school district broadens its use of Google Classroom and all of its accompanying web-based programs and platforms.

Grade: 9, 10, 11, 12

Prerequisite: None

IP STEM Program Project

IPSTEM

1 Unit

May be used to satisfy 21st Century Life and Careers, Or Career-Technical Education with approval of Supervisor of Technology Education and Business

TECHNOLOGY EDUCATION

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681

1 Unit

This course introduces the basic knowledge of woodworking techniques learned through a hands-on approach with the development of a wood project. The student will

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use hand tools, power machines, and woodworking processes to develop a major class project. The student will use technological information, use critical thinking skills, demonstrate self-management skills, and apply safety principles. The requirement of a research project will be fulfilled through several career searches. In addition, the course will set high standards related to work habits and ethical behavior which are both interwoven with the safety principles. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 9, 10, 11, 12

Prerequisite: None

Wood Technology II

682

1 Unit

This course is based on the knowledge and skills acquired in Wood Technology I. Original planning and drawing of furniture is encouraged through the use of Computer-Aided Drafting & Design (CADD). The student will perform advanced machine operations and woodworking processes. He/she will use technological tools, exhibit critical thinking, problem solving and self-management skills, follow safety principles, and plan for possible careers. The requirement of a research project will be fulfilled through an appropriate topic chosen by the student. In addition, the course will set high standards related to work habits and ethical behavior which are both interwoven with the safety principles. Prerequisite: This course fulfills the state requirement for one unit in career education required for graduation

Grade: 10, 11, 12

Prerequisite: Enrollment in this course is through an application process, and the student must have a B average or above in Woods I or permission of the instructor.

Wood Technology III

683

1 Unit

The course is for the third year Wood Technology student. The nature of this course will be similar to an apprenticeship. Students will have the opportunity to learn and develop skills related to the wood technology trade. Some of the possible projects that can be developed are the following: bookshelves, showcases, tables, chairs, indoor/outdoor benches, school playground items, and other wood projects as approved by the instructor. This course is recommended for the student who has serious interest and strong manual skills as needed in career-related areas such as construction, engineering, architecture, manufacturing, and industry. There is a written research project required as part of the course. In addition, the course will set high standards related to work habits and ethical behavior which are both interwoven with the safety principles. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 11, 12

Prerequisite: Woods 2

Computer Graphics Technology 1 631**1 Unit**

This is a year long, project-based curriculum that develops knowledge in information and communication technology, and career skills in print, graphic, and technical design. Students create and manage production of computer graphics through a variety of software and technologies. The software includes Adobe Creative Suite applications: InDesign, Illustrator, and Photoshop. These are supported with additional software for options in 3D modeling. The course contains opportunities in digital offset printing, photo-direct silk screening and heat transfer equipment (printing on T-shirts), scanning, photography, computer graphics/typesetting procedures on the new digital presses, technical communication, and industrial design. The students will learn to develop original ideas and apply them to assignments, ranging from special event flyers to exhibit displays for products. This course aligns to the International Society for Technology in Education (ISTE) National Educational Technology Standards (NETS) for Students. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 9, 10, 11, 12**Prerequisite:** None**Computer Graphics Technology II 632****1 Unit**

This course continues the project-based curriculum of Computer Graphics Technology I that develops knowledge in information and communication technology, and career skills in print and graphic design, using Adobe tools. Adobe Creative Suite applications, including InDesign, Illustrator, Dreamweaver, Photoshop, Animate, and Acrobat, are used as the software for the graphics class. Study is directed toward photographic techniques used in printing. Students will develop skills in the use of information, and up-to-date use of educational technology, and the use of other tools to improve learning, achieve goals, produce products and make presentations. Activities include the production of CD covers, calendars, magazine and newspaper layouts, as well as the use of multi-color printing and halftone work using the new digital presses. This course aligns to the International Society for Technology in Education (ISTE) National Educational Technology Standards (NETS) for Students. Students may become an Adobe Certified Associate in Visual Communication (Photoshop) by passing the Adobe internationally and nationally recognized certification exam given through Certiport. Bergenfield High School is a Certiport Testing Center, and students may take the Adobe exam in their class. This course fulfills the state requirement for one unit in career education required for graduation. .

Grade: 10, 11, 12**Prerequisite:** Enrollment in this course is through an application process, and the student must have a B average or above in Computer Graphics Technology I or teacher permission.**(Permitted alternative for prerequisite course: Computer Graphics I)*

Computer Graphics Technology III 633**1 Unit**

This course is designed for the student interested in the graphic arts field where advanced skills in graphics programs will be explored. Students will develop information and communication technology skills in web design and production using Adobe tools. Adobe Creative Suite applications, including InDesign, Illustrator, Dreamweaver, Photoshop, Animate, and iClone 6, are used as the software for the graphics class. The students experience mass production work techniques, web design, multi-color printing, color reproduction photography, and advanced computer visual graphic techniques. This course aligns to the International Society for Technology in Education (ISTE) National Educational Technology Standards (NETS) for Students. Students may become an Adobe Certified Associate in Web Communication (Dreamweaver) by passing the Adobe internationally and nationally recognized certification exam given through Certiport. Bergenfield High School is a Certiport Testing Center, and students may take the Adobe exam in their class. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 11, 12

Prerequisite: Enrollment in this course is through an application process, and the student must have a B average or above in Computer Graphics Technology I and Computer Graphics Technology II.

**(Permitted alternative for prerequisite courses: Computer Graphics I & II)*

**Design Foundation:
Architecture to Robotics I****651****1 Unit**

Students who would like to experience technology and design will benefit from this course. Areas such as architectural structures, product design, interior design, and robotics can be explored at an introductory level, through hands-on building projects and computer-aided design software. This reflects a comprehensive maker/tech curriculum that is integrated with real-world activities. Examples of project possibilities include designing restaurants, creating model houses, drawing components for mechanical products, and building robots. Coursework will lead to further potential opportunities as well, such as insights into technology and design careers, interdisciplinary approaches, portfolio development options for the college admissions process, and more. Future designers, architects, and engineers may also want to take nationally and internationally recognized certification exams for the utilized software. The course fulfills the state requirement for one unit in career education required for graduation.

Grades: 9, 10, 11, 12**Prerequisite:** None**Design Foundations:****652****1 Unit**

Architecture to Robotics II

In this second year course, students continue to build on the technology and design knowledge developed in the first year of the program. Areas such as architectural structures, product design, interior design, and robotics can be explored at an intermediate level, through hands-on building projects and computer-aided design software. Coursework will lead to other potential opportunities as well, such as further expanding one's insights into technology and design careers, interdisciplinary approaches, portfolio development options for the college admissions process, and more. For those considering careers in industrial design, architecture, and engineering, they may also want to take nationally and internationally recognized certification exams for the utilized software. The course fulfills the state requirement for one unit in career education required for graduation.

Grades: 10, 11, 12

Prerequisite:

Design Foundation: Architecture to Robotics I

Design Foundation: **650** **1 Unit (Weighted Credit)**
Architecture to Robotics III Honors

This third year course continues to build on the technology and design knowledge developed in the first two years of the program. Areas such as architectural structures, product design, interior design, and robotics can be further explored at an advanced level, through hands-on building projects and computer-aided design software. The process offers advancement towards new levels in research, documentation, drawing, and building activities. With this, coursework will lead to further exploring one's individualized priorities, in such areas as technology and design careers, interdisciplinary approaches, portfolio development options for the college admissions process, and more. For those aspiring to be designers, architects, and engineers, they may also want to take nationally and internationally recognized certification exams for the utilized software. The course fulfills the state requirement for one unit in career education required for graduation.

Grades: 11, 12

Prerequisites:

Design Foundation: Architecture to Robotics I & II

Cisco Discovery 1 CCENT **600** **.5 Unit (Weighted Credit)**
Semester 1 Honors

This two-semester course (Networking for Home and Small Businesses and Working at a Small-to-Medium Business or ISP) prepares students looking to gain an entry level job within an IT support or networking environment. The curriculum is organized around the

types of work environments students may encounter, such as a home or a small office. All students enrolled in Cisco discovery CCENT program will be required to take the Cisco certification exam (ICND1 640-822 CCENT – Cisco Certified Entry Network Technician) at the completion of Semester 2. This Web-based course will provide students with classroom and laboratory experience in current and emerging networking technologies. Students should have good reading and comprehension skills in order to successfully complete the technical readings required for the course as well as have good math skills. All chapter tests and exams are completed online. This course fulfills the state requirement for one unit in career education required for graduation.

Note: Cisco Discovery 1 CCENT: Semester 1 and Cisco Discovery I CCENT: Semester 2 are linked courses and are taken in sequence.

Grade: 10, 11, 12

Prerequisite: Student must have already taken the A+ two course sequence

**[Cisco Discovery 1 CCENT
Semester 2 Honors](#)**

605

.5 Unit (Weighted Credit)

This two-semester course (Networking for Home and Small Businesses and Working at a Small-to-Medium Business or ISP) prepares students looking to gain an entry level job within an IT support or networking environment. The curriculum is organized around the types of work environments students may encounter, such as a home or a small office. All students enrolled in Cisco discovery CCENT program will be required to take the Cisco certification exam (ICND1 640-822 CCENT – Cisco Certified Entry Network Technician) at the completion of Semester 2. This Web-based course will provide students with classroom and laboratory experience in current and emerging networking technologies. Students should have good reading and comprehension skills in order to successfully complete the technical readings required for the course as well as have good math skills. All chapter tests and exams are completed online. This course fulfills the state requirement for one unit in career education required for graduation.

Note: Cisco Discovery 1 CCNA: Semester 1 and Cisco Discovery I CCNA: Semester 2 are linked courses and are taken in sequence. Students must pass the Cisco semester exam for Semester 1 in order to take Semester 2.

Grade: 10, 11, 12

Prerequisite: Student must have already taken the A+ two course sequence

**[Cisco Discovery 2 CCNA
Semester 1 Honors](#)**

610

.5 Unit (Weighted Credit)

This two-semester course (Introducing Routing and Switching in the Enterprise and Designing and Supporting Computer Networks) prepares students to install, configure,

operate, and troubleshoot medium-size routed and switched networks. The curriculum also includes information on handling security threats, wireless networking concepts and terminology, and performance-based skills. All students enrolled in this full year course will be required to take the Cisco certification exam (ICND2 640-816 CCNA – Cisco Certified Network Associate) at the completion of Semester 2. This Web-based course will provide students with classroom and laboratory experience in current and emerging networking technologies. Students should have good reading and comprehension skills in order to successfully complete the technical readings required for the course as well as have good math skills. All chapter tests and exams are completed online. Enrollment in this course is through an application process in the Technology Education Department. This course fulfills the state requirement for one unit in career education required for graduation.

Grade: 11, 12

Prerequisite: Successful completion of Cisco Discovery CCENT with a grade of C or higher.

Note: Cisco Discovery 1 CCNA: Semester 1 and Cisco Discovery I CCNA: Semester 2 are linked courses and are taken in sequence. Students must pass the Cisco semester exam Semester 1 in order to take Semester 2.

**[Cisco Discovery 2 CCNA
Semester 2 Honors](#)**

615

.5 Unit (Weighted Credit)

This two-semester course (Introducing Routing and Switching in the Enterprise and Designing and Supporting Computer Networks) prepares students to install, configure, operate, and troubleshoot medium-size routed and switched networks. The curriculum also includes information on handling security threats, wireless networking concepts and terminology, and performance-based skills. All students enrolled in Cisco Discovery CCNA program will be required to take the Cisco certification exam (ICND2 640-816 CCNA – Cisco Certified Network Associate) at the completion of Semester 2. This Web-based course will provide students with classroom and laboratory experience in current and emerging networking technologies. Students should have good reading and comprehension skills in order to successfully complete the technical readings required for the course as well as have good math skills. All chapter tests and exams are completed online. Enrollment in this course is through an application process in the Technology Education Department. This course fulfills the state requirement for one unit in career education required for graduation.

Note: Cisco Discovery 1 CCNA: Semester 1 and Cisco Discovery I CCNA: Semester 2 are linked courses and are taken in sequence. Students must pass the Cisco semester exam Semester 1 in order to take Semester 2.

Grade: 11, 12

Prerequisite: Successful completion of Cisco Discovery CCENT with a grade of C or higher.

**Cisco Network Security IINS
Honors****620****.5 Unit (Weighted Credit)**

This one semester course prepares students to install, troubleshoot, and monitor network devices to maintain integrity, confidentiality, and availability of data and devices. All students enrolled in this semester course will be required to take the Cisco certification exam (IINS 640-553 Implementing Cisco IOS Network Security) at the completion of the semester. This Web-based course will provide students with classroom and laboratory experience in current and emerging networking technologies. Students should have good reading and comprehension skills in order to successfully complete the technical readings required for the course as well as have good math skills. All chapter tests and exams are completed online. Enrollment in this course is through an application process in the Technology Education Department. This course fulfills .5 of the state requirement for one unit in career education required for graduation.

Grade: 12**Prerequisite:** Successful completion of Cisco Discovery CCNA**A+ IT Essentials****603****.5 Unit**

This first semester course covers basic computer hardware and operating systems, including installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing and preventive maintenance, with additional elements of security and soft skills. The coursework will prepare students to take the mandatory Comptia A+ Essentials certification exam, one of two courses required for A+ certification which is the industry standard for entry-level certified computer service technicians. Course work will be taught in a lab setting using both texts and interactive CD-ROMs. Students will be tested electronically on chapter studies. A basic understanding of computers is recommended. Measure up software is used to prepare for the CompTIA Strata Fundamentals of IT Technology exam, a required exam in this course. This course fulfills .5 of the state requirement for one unit in career education required for graduation.

Note: A+ IT Essentials and A+ IT Technician are linked courses and are taken in sequence. A+ IT Essentials is taken the first semester and A+ IT Technician is taken the second semester.

Grade: 9, 10, 11, 12**Prerequisite:** None**A+ IT Technician****604****.5 Unit**

This second semester course targets information necessary to work in a mobile or corporate technical environment with a high degree of face-to-face client interaction

(enterprise technician, IT administration, field service technician, PC technician). The coursework will prepare students to take the mandatory Comptia A+ 2009 Edition certification test. Candidates who pass both parts (A+ Essentials 22—701 and A+ Practical Application 220-702) exam will be A+ certified, the industry standard for entry-level certified computer service technicians. Course work will be taught in a lab setting using both texts and interactive CD-ROMs. Students will be tested electronically on chapter studies. A basic understanding of computers is recommended. Measure up software is used to prepare for the certification exam. This course fulfills .5 of the state requirement for one unit in career education required for graduation.

Note: A+ IT Essentials and A+ IT Technician are linked courses and are taken in sequence. A+ IT Essentials is taken the first semester and A+ IT Technician is taken the second semester.

Grade: 9, 10, 11, 12

Prerequisite: None

[Database Design & Programing](#) **625
**[Oracle Academy 1 Honors](#)
(Java Programing)****

1 Unit (Weighted Credit)

The Oracle Academy courses are designed to provide students with foundational knowledge and skills in areas of computer science that are universally in high demand across computing jobs. The first year of Oracle covers Java programming. Students are introduced to object-oriented concepts, terminology, and syntax and the steps required to create basic Java programs using hands-on, engaging activities. Students who wish to learn computer programming and learn how to create animations, games and applications using fun and engaging tools. The Oracle course program is a suitable foundational class for computer science learning and can prepare students for the AP Computer Science A exam.

Grade: 9, 10, 11, 12

Prerequisite: Enrollment in this course is through approval of the department chairperson.

[Database Programming with](#) **630
**[PL/SQL](#)
(Oracle Academy 2) Honors****

1 Unit (Weighted Credit)

This course is the second in the Oracle Academy offerings. Students who wish to learn the techniques and tools to design, build and extract information from a database should take this course. It introduces students to basic relational database concepts. The course teaches students relational database terminology, as well as data modeling

concepts, building Entity Relationship Diagrams (ERDs), and mapping ERDs. Oracle Structured Query Language (SQL) Developer Data Modeler is utilized to build ERDs and the SQL is used to interact with a relational database and manipulate data within the database. The next phase teaches students to analyze complex business scenarios, design and create data models, and create databases using SQL. The final stage of the course introduces students to Oracle's procedural extension language for SQL and the Oracle relational database.

Grade: 10, 11, 12

Prerequisite: Successfully completed the Oracle Academy I course (Java Programming) with an A or B.

AP Computer Science Principles

635

1 Unit (Weighted Credit)

The AP Computer Science Principles course is designed to be a unique learning experience, and is equivalent to an introductory college class. The course fosters students' creativity through developing colorful computational artifacts, such as eye-catching mobile apps. Students are encouraged to think creatively while using technology to explore questions that interest them, address real-world applications, and discuss the impacts on community, society and the world. The course uses multidisciplinary approaches to teach the fundamentals of computation, including creative aspects of programming. The course aims to broaden participation in computer science with a rigorous and rich curriculum, and students are encouraged to go on to taking AP Computer Science A in the following year. In addition, completion of this AP Computer Science Principles course fulfills the state requirement for one unit in career education required for graduation.

Grades: 9, 10, 11, 12

Prerequisite: successful completion of Algebra I

Technology Apprenticeship

616

1 Unit

Students who are taking computer technology courses will have the opportunity to have an apprenticeship with the Technology Department. Students will gain real experience in the fixing, using and programming computers. Those who are interested in participating in the apprenticeship program will need to obtain prior approval from the District Technology Department Supervisor. This course does not count toward the 24 required credits for graduation

Grade: 10, 11, 12

Prerequisite: Successful completion of one of the technology based courses listed above.

Fundamentals of Sustainable Engineering and Technology

607

1 Unit

This course aims to introduce students to the beliefs, philosophies, and scientific principles that support a more sustainable world. Through project-based learning experiences, students develop their basic understanding of the world around them with particular interest in how we use energy, materials, and resources to design, build, and power our world. Initial explorations focus on their connections to the natural world and the extent to which human activity impacts it. Building on these concepts, students design and build a model that embraces the science, ethics and efficiency standards that correspond with sustainable practices to demonstrate a means to mitigate human impacts.

Grade:9

Prerequisite: None

[Solar/Environmental Resource Management](#)

609

1 Unit

This course will allow students to utilize the design process to compete to make a solar cooker, solar powered race car, design and build a solar panel, and design an off-grid PV system. This course counts toward the state requirement for one unit in career education required for graduation.

Grade: 10

Prerequisite: Fundamentals of Sustainable Engineering and Technology

[Fundamentals of Wind and Water](#)

611

1 Unit

This course aims to introduce students to other forms of alternative energy as well as the global water crisis. The students are first engaged in a collaborative effort to research solutions, identify constraints and criteria, develop a plan/approach, document, draft, prototype, evaluate, refine, create, implement and present the best wind turbine for a proposed application. The students are then introduced to the importance of water in our world and will explore water-based issues. Building on these concepts, the students will design and build a water filtration device and a hydropower project. This course fulfills the state requirement for one unit in career education required for graduation

Grade: 11

[Green Tech Senior Design Capstone Project](#)

612

1 Unit

The Senior Capstone Design Project is designed to engage students in an individualized learning program that builds upon their technical, academic, aesthetic,

and professional abilities. The students will research and choose an area of interest and be assessed on their ability to design, create, implement (engage the community), monitor, and evaluate a product or a process that improves sustainability and/or energy efficiency. The result will be an original, useful project that focuses on a specific area of interest. In addition, this course will be a dual credit course with Stockton College. The curriculum for Stockton's Introduction to Sustainability course will be followed. Students will have the option of taking this course through Stockton College to potentially receive 4 college credits.

Grade: 12

Prerequisite: Green Tech Fundamentals of Wind and Water

[Green Engineering Course](#)

613

1 Unit

(Elective course - separate from Green Tech course pathway)

This is a full year, hands-on elective course that introduces the use of sustainable and green design building strategies, assemblies, materials, and approaches. Students will follow the design process to complete a variety of green projects. Topics will include solar energy, wind energy, and hydropower. The course will culminate with a design challenge, in which the students will design and produce their own sustainable product.

Grade: 10,11,12

Prerequisite: None

[ENGLISH](#)

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The English for New Americans Program (For English Language Learners)

[ENA III \(Beginner\), II \(Intermediate\) & I \(Advanced\)](#) 011C, 011B, 011A 1 Unit each

Students will be selected for one of the three levels of this program by their former English and ESL teachers and appropriate placement tests. Students should have a minimum basic proficiency in the English language. The purpose of the course is to improve that proficiency before enrollment in any general education English course can occur. Fundamental reading and writing skills, as well as specific skills to address the New Jersey Student Learning Assessment (NJSLA) in English Language Arts will be the focuses of the course. Building vocabulary, expressing ideas orally and in writing, and reading various types of literature will be emphasized. Students work with the College Board Springboard program and read appropriately selected novels from the general education English program on the various levels.

Grade: 9, 10, 11, 12

Prerequisite: Teacher Selection

9th GRADE PROGRAM

[English 9](#)

012

1 Unit

Students will study literature based on a genre approach in order to understand the nature and structure of the short story, poetry, the essay, drama and nonfiction. In addition, they will improve their writing skills by developing descriptive, narrative, persuasive and expository essays. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLS) will be emphasized. The College Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

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Grade: 9
Prerequisite: None

English 9 Honors

015

1 Unit (Weighted Credit)

This challenging course focuses on an in-depth study of literature in a genre-based format. Students will study short stories, poetry, essays, speeches, and works of longer fiction and nonfiction. Works will range from classic literature and Shakespeare to modern multicultural works. Students will be introduced to research skills which will result in the writing of a research paper. Critical analysis of literature will engage students to read on, between, and beyond the lines of literary works. Literary terms and formats will be discussed in depth. Students will also be required to study the elements of public speaking. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLs) will be emphasized. The College Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

Grade: 9

Research & Writing

091

.5 Unit

This half-year (one semester) course is offered to ninth graders in conjunction with Civics. The purpose of the course is to build a solid foundation for writing at the high school level. Students will learn organization, study, research, and writing skills they will be able to take with them throughout their high school careers.

Grade: 9

Prerequisites: None

10th GRADE PROGRAM

English 10

022

1 Unit

This college preparatory course stresses the development of writing skills, literary analysis, and inferential reading ability. Literary studies will include drama, various works of fiction and nonfiction, poetry, and essays. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLs) will be emphasized. The College

Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

Grade: 10

English 10 Honors

025

1 Unit (Weighted Credit)

Proper means of writing research and thesis papers, as well as the development of critical writing skills will also be stressed. Creative projects will also be assigned. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLS) will be emphasized. The College Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

Grade: 10

11th GRADE PROGRAM:

English 11

032

1 Unit

This enriched college prep course concentrates on developing the language arts skills and the literary background needed for continued education after graduation from high school. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLS) will be emphasized. The College Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

Grade: 11

AP Language and Composition

035

1 Unit (Weighted Credit)

The focus of this very rigorous AP course is to provide students with the necessary skills needed to develop advanced argumentative, analytical writing, and critical reading skills in preparation for the AP English Language and Composition exam in May. Research skills are highly stressed as students will create several researched argumentative essays throughout the course of the year. This course is designed for students who have a very strong aptitude for Language Arts and those who have a keen interest in spending significant study time developing and advancing these skills. Note: Students who score a 3 or higher on a scale of 1-5 on the Advanced Placement exam may receive advanced credit for college level courses from many colleges and universities.

Grade: 11, 12

College Credit: This course can be taken for college credit from Dominican College or Fairleigh Dickinson University

12th GRADE PROGRAM:

All students at this grade level receive preparation for college applications and resumes.

English Composition

042

1 Unit

Through an enriched preparation for college level reading and writing, this course will include detailed studies in composition which will prepare them to be successful in their college courses. Refinement of writing skills and the continued development of college-level vocabulary will also be developed. There will be a focus on close reading of nonfiction essays and writing to analyze nonfiction. Skill preparation in accordance with the New Jersey Student Learning Standards (NJSLS) will be emphasized. The College Board Springboard program will be used in addition to grade-level appropriate novels and nonfiction selections.

Grade: 12

AP Literature and Composition

045

1 Unit (Weighted Credit)

In this course, students experience the appropriate depth and skills necessary for quality analyses of various works of literature. Students will prepare for the Advanced Placement examination in English Literature and Composition which will be taken in May. The major activities focus on critical reading, class discussion, and seminars, literary analysis, research writing, and oral and technical presentations. Literary concepts and theories are applied to selected works and authors. In-depth discussions of various works will give students an excellent and diverse literary background in preparation for their college education. Note: Students in this course who qualify on the Advanced Placement exam, with a score of 'three' or higher (on a scale of 1-5/low to high), may receive college credit from many colleges and universities. Students in this course may participate in the Fairleigh Dickinson University Middle College Program. For a small fee, they will qualify for college credit after successful completion of the course in June.

Grade: 11, 12

College Credit: This course can be taken for college credit from Dominican College or Fairleigh Dickinson University

The English Elective Program

The following English elective courses do not fulfill the graduation requirement of four units of English over four years. They are strongly recommended for students with specific interests within the focused subject areas or fields of study.

Creative Writing

046

1 Unit

Creative Writing is offered to students with a demonstrated talent for writing and a desire to experiment with various writing styles and techniques. The course work is a combination of extensive reading and writing. Students must make a commitment to daily writing in different writing genres, such as journal, poetry, essay, drama, short story, non-fiction, etc. Student writing will oftentimes be shared among students in the course. All students will be expected to meet deadlines and revise their work on an ongoing basis. Specific techniques of writing will be analyzed and extensive practice provided. The readings will serve as a reservoir of ideas and writing styles.

Grade: 9, 10, 11, 12

Visual Literacy

047

1 unit

This elective introduces students to the analysis of visual “texts,” including film and graphic novels. Students who take this course will view, critique, and analyze movies selected from the American canon and created by both classic and modern directors. Students will be exposed to the basic components of storytelling as well as the business of film. Students should expect to read many critiques and analyses on the films viewed in class and also will be expected to write their own. There will be regular homework assignments, including essays, along with required film viewings at home.

During the second half of the course, students will study graphic novels through the study of a series of multicultural graphic novels addressing a variety of topics. Students will primarily study and analyze how graphics and text combine to form meaning.

Students will be expected to read nightly and complete independent writing assignments as well as independently read and report on graphic novels of their choice.

Grade: Open to students in grades 9, 10, 11, and 12. Scheduling preference given to seniors.

Public Speaking

048

1 Unit

This year-long course provides the students with an understanding of the different types of communication and the communication process. It will also improve the students’ speaking, listening, and critical thinking skills. The students will learn the importance of body language, facial expressions, good posture, appropriate gestures, articulation, and enunciation. The students will also learn how to research, plan, prepare, write, and present a variety of speeches, such as introduction, oral interpretation, information, demonstration, persuasive, panel discussion, and impromptu speeches.

Grade: 10, 11, 12

Beginning Drama and Theatre

052

1 Unit

The first semester of this course provides a sequential historical study of drama and theatre beginning with Greek theatre. Students learn basic drama/theatre terms, and

study several influential playwrights, such as Euripides, Shakespeare, Chekhov, Wilde, Ibsen, Rostand, Lorca, Wasserstein, Loomer, and other 20th century playwrights. Students read and analyze the plays, focusing on theatre movements, characters and motivations, and themes. Students will be required to complete creative projects that reflect their knowledge and understanding of the plays. The projects will involve skills, media, and methods such as writing, drawing, designing, directing, staging, constructing, speaking, and performing. The second semester of the course is an introduction to acting. Students learn basic acting terms and concepts – such as stage and body positions, objective, through-actions, motivation, inner monologue, given circumstances, and living in the moment – which are the basis for the Stanislavski system of acting. In a workshop setup, students practice relaxation, concentration, body control, group dynamics, character development, scene development, and making an action of speech. Students participate in many group acting exercises and improvisations. This course counts toward the state visual and performing arts credit needed for graduation.

Grade: 9, 10, 11, 12

Advanced Drama and Theatre

054

1 Unit

This year-long course is a performance course. Students learn advanced acting skills and techniques based on a modified version of the Stanislavski system of acting. The activities expand on the exercises and activities dealing with relaxation, concentration, body control, group dynamics, character development, and making an action of speech. The students will perform memorized scenes, monologues, and improvisations. Students are exposed to other facets of theatre, including stagecraft, lights, sound, costumes, makeup, and directing. Students electing this course should have a desire to work with fellow actors to create scenes and improvisations. They must commit themselves to the selection, preparation, direction, and presentation of scenes for an audience. This course counts toward the state visual and performing arts credit needed for graduation.

Grade: 10, 11, 12

Prerequisite: Beginning Drama & Theater

Journalism 1

051

1 Unit

This full year course in a computer lab setting explores the craft of newspaper publishing, with an emphasis on the art of writing straight news stories, features, editorials, interviews, and sports. Standards of judging news and analyzing the performance of professional newspapers are presented in terms of the beginning journalist's "getting behind the scenes" and seeing how news is built. The course also includes introductory surveys of advertising, layout, and the historical background of journalism in the United States and the people responsible for it. A thorough groundwork in learning to determine verifiable facts and distinguishing them from opinion is developed. While writing is a major element, the course also includes a study

AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

AP Capstone is comprised of two AP courses — AP Seminar and AP Research— and is designed to complement and enhance the discipline-specific study in other AP courses. Bergenfield High School uses the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

At BHS, students will have the opportunity to take Capstone Foundations prior to taking AP Seminar to build their skills and prepare for the rigor of the AP Capstone program.

Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP exams of their choice will receive the AP Capstone Diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research will receive the AP Seminar and Research Certificate. These honors are recognized by colleges and universities and will help Capstone students to stand out on their college applications and in college interviews.

Capstone Foundations

055

.5 Unit (Weighted Credit)

Capstone Foundations is a course designed to prepare students with the fundamental skills necessary to succeed in the rigorous academic environment of the AP Capstone Program. This course introduces students to the nature of research questions in particular fields, and encourages cross-curricular critical thinking. Students will be guided through the process of academic research, from taking advantage of available resources, to improving their compositional and critical reading skills, to developing the ability to work effectively with their peers and present findings in a public sphere. The course will culminate with a sample assessment similar to that they will complete in AP Seminar to determine their preparedness for the later stages of the AP Capstone Program.

Grade: 9

Prerequisite: None

AP Seminar/English 10

065

1 Unit (Weighted Credit)

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students

practice reading and analyzing a variety of academic texts, as well as working with other forms of media. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

Grade: 10

Prerequisite: Capstone Foundations or recommendation from an AP Capstone teacher

[AP Research](#)

070

1 Unit (Weighted Credit)

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. Throughout the course, students gain a better understanding of research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information as they address a research question. The course culminates in an academic paper of approximately 4000-5000 words and a presentation with an oral defense.

Grade: 11

Prerequisite: AP Seminar

[MATHEMATICS](#)

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The Mathematics Department offers a wide range of courses to meet the needs of students of varying interests and ability levels. Successful completion of three years of mathematics and attaining a proficient score on the Algebra I New Jersey Student Learning Assessments (NJSLA) are the New Jersey Department of Education requirements for graduation. Guidelines for the selection of math courses are established based on the grade in the previous course, standardized test scores, and teacher recommendation.

[Algebra 1 CP](#)

209, 211

1 Unit

Algebra I is a college preparatory course that includes the study of properties and operations of the real number system, evaluating rational algebraic expressions, solving and graphing first degree equations and inequalities, translating word problems into equations, operations with and factoring of polynomials, solving simple quadratic equations and solving systems of linear equations and inequalities. Real life applications and connections to other areas of mathematics and other disciplines are integrated throughout the course wherever appropriate. Graphing calculators and computer-assisted instruction are utilized to enhance the course work.

Grade: 9

Prerequisite: Math 8

[Integrated AlgGeo 1](#)

212

1 Unit

This beginning study of Algebra provides a transition to the theory, processes, and notation of Algebra. It includes explorations regarding integers, variable expressions, solving linear equations and inequalities, graphing linear functions and solving systems of linear equations. It integrates content from geometry, statistics, data analysis, and

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discrete math, as it builds the groundwork for later, more challenging topics. Real-life, practical applications and interdisciplinary connections are incorporated as well as the use of calculators and technology whenever possible. This course is followed by *Integrated AlgGeo 2*, the next course in a two-year sequence.

Grade: 10

Prerequisite: none

[Integrated AlgGeo 2](#)

213

1 Unit

This course extends the students knowledge of algebraic and geometric topics as a continuation of the Integrated Algebra 1A course. The study of Algebra I topics is extended to polynomial, exponential, and rational functions. An overview of discrete math connects to a study of probability and decision making. Spatial sense, geometric relationships, and proportional reasoning are stressed. This course completes the two year sequence of Integrated Algebra and will satisfy the New Jersey requirement of Algebra and Geometry.

Grade 11

Prerequisite: Integrated AlgGeo 1

[Medical Math](#)

214

.5 Unit

This course will provide a review of basic mathematical calculations and will instruct the learner on how to convert equivalents from one system to another and accurately mix and measure drugs. Emphasis will be placed on how these techniques are used in the administration of medications for patient use. This course relies on hands-on activities, assignments, and discussion. Students who successfully complete this course and Dynamics of Health will receive three credits from the University of Medicine and Dentistry of New Jersey.

Grade: 10,11,12

[Integrated Math 3](#)

216

1 Unit

(Pending Board Approval)

[Plane Geometry](#)

221

1 Unit

A development of geometry with emphasis on logical structure and inductive and deductive reasoning, applied to formal proofs, constructions, and numerical problems. The basic concepts of geometry concerning points, lines, and planes, angle relationships, congruent and similar polygons, circles, basic trigonometry, basic constructions, coordinate geometry, and area and volumes are developed from an approach that integrates Algebra and Geometry. The course develops an appreciation of geometric form in nature, art and architecture and a transfer of reasoning techniques of geometry to real world applications and problem solving.

Grade: 9, 10

Prerequisite: Successful completion of Algebra 1

Geometry Honors

225

1 Unit (Weighted Credit)

A development of geometry with emphasis on its logical structure and with consideration of both the inductive and deductive methods of reasoning as applied to formal proofs, construction problems, numerical problems and right triangles. Solid geometry is included as an extension of plane geometry wherever correlation can be made. Original thinking in developing proofs and knowledge of factual matter of geometry needed for subsequent courses are goals. Also, class discussions of appropriate material aim to transfer reasoning techniques used in geometry to everyday thinking.

Grade: 9, 10

Prerequisite: Successful completion of Algebra 8 or A+ in Algebra 1 (211)

Algebra 2

231 B, C

1 Unit

Algebra 2 is an extension of Algebra 1 covering those topics in greater depth including real numbers and their properties, solving equations, linear equations, systems of equations in two and three variables, inequalities, including absolute value inequalities, operations with polynomials, polynomials and factoring, fractional expressions and equations, exponents, powers, and roots, complex numbers, quadratic equations, relations and functions, quadratic functions, equations of the second degree, exponential and logarithmic functions.

Grade: 9, 10, 11, 12

Prerequisite: Algebra 2 231B successful completion of Algebra 1 (211)

Algebra 2 231C successful completion of Algebra 1 (209)

Algebra 2 Honors

230

1 Unit (Weighted Credit)

This course is a more in-depth study of Algebra 2 with an emphasis on such topics as sequences and series, complex numbers and polynomial functions. The use of graphing calculators and computer-assisted instruction is integrated whenever appropriate.

Grade: 9, 10, 11, 12

Prerequisite: C in Algebra 8 or A+ in Algebra 1 CP

Probability and Statistics

237

1 Unit

An introduction to statistics and probability designed for the student who plans to attend college as it has become a requirement for most colleges. This full year course will be offered for college credit. Topics included are preliminary notions of probability,

conditional probability, analysis of numerical data, preparing for a survey, sampling and making decisions.

Grade: 10, 11, 12

Prerequisite: Algebra 1

College Credit: This course can be taken for college credit from Dominican College or Fairleigh Dickinson University

Financial Algebra

239

1 Unit

Financial Algebra addresses Advanced Algebra topics with Financial Applications by applying these mathematical concepts in practical business and personal finance contexts. Financial Algebra presents algebra-rich, applications-oriented, technology dependent topics from Algebra 2, Geometry, Pre-Calculus, and Probability and Statistics by modeling banking, credit, employment, taxes, auto ownership, housing, retirement, investing, budgeting, and more. It is geared particularly for seniors who would rather master and extend skills than choose a more advanced elective. The course aims to enable students to better meet their potential in their performance on the college placement tests such as those given in the New Jersey State Colleges and the State Universities. Graphing calculators are incorporated.

Grade: 11, 12

Prerequisite: Algebra 2 and Plane Geometry

Pre-Calculus Honors

235

1 Unit (Weighted Credit)

A unified treatment of advanced algebra, trigonometry, analytic geometry and introductory calculus is designed to deepen understanding of concepts presented in earlier courses and prepare for advanced work in mathematics. The course deals with an in depth study of trigonometric and circular functions and their inverses, trigonometric equations and identities, solutions of triangles, and polar coordinates and complex numbers. It also focuses on the relations between the graphs and the algebra and geometry of other functions including polynomial and rational functions, special functions, such as absolute value and step functions, and exponential and logarithmic functions. Other algebraic exponential topics include sequences and series. The use of the graphing calculator is incorporated.

Grade: 11, 12

Prerequisites: Successful completion of Algebra 2H or B+ in Algebra 2 with departmental approval

Pre-Calculus

241

1 Unit

This course gives an in depth treatment of trigonometry, and advanced algebra, and is designed to deepen the student's understanding of concepts presented in previous college prep mathematics courses in order to prepare for advanced work in mathematics. It includes a study of the graphs and applications of the trigonometric and

circular functions and their inverses, logarithmic and exponential functions, trigonometric equations and identities, solutions of triangles, polar coordinates and the complex numbers. Topics in algebra include a study of functions, the theory of equations, sequences and series, and the meaning of limits.

Grade: 11, 12

Prerequisite: Successful completion of Algebra 2B and Plane Geometry

Calculus Honors

240

1 Unit (Weighted Credit)

This course is an elective for students who have both a strong interest in mathematics and high aptitude for problem solving. Calculus Honors is an extensive course covering a wide range of topics in higher mathematics, including the study of limits and continuity of functions leading to differential and integral calculus of polynomial functions, rational functions, exponential functions, the natural logarithmic function, and circular functions. The application of calculus to problem solving will be emphasized. The skills and concepts acquired through successful completion of Calculus Honors will serve as a foundation for College courses in Calculus, Science and Technology. Use of graphing calculators will be incorporated.

Grade: 12

Prerequisite: B- in Pre-Calculus

AP Calculus AB

245

1 Unit (Weighted Credit)

Calculus is the mathematics of change and motion. The elements of Analytic Geometry are reviewed and extended. Functions - algebraic trigonometric, exponential, and logarithmic, - are studied with respect to their graphs, differentiation and integration, and their application to problem solving. This course follows the Advanced Placement Curriculum and prepares students for the AP Test.

Grade: 12

Prerequisite: B- in Pre-Calculus Honors or departmental approval.

AP Calculus BC

255

1 Unit (Weighted Credit)

The purpose of Calculus BC Advanced Placement is to provide a rigorous, well defined curriculum for Advanced Placement Calculus. It is an extension of Calculus AB, and is intended to enable a student to obtain credit for the first two semesters of college calculus. This course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. Through the use of unifying themes of derivatives, integrals, limits, approximation, and applications and modeling, the course becomes a cohesive

whole. Technology is used regularly by students and teachers to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. Each student has their own calculator, TI-Nspire CAS. The course includes, but is not limited to, college level mathematics for which most colleges grant advanced placement credit according to the results of an Advanced Placement Examination.

Grade: 11 or 12

Prerequisite: A+ in Pre Calculus Honors.

AP Probability & Statistics

250

1 Unit (Weighted Credit)

AP Statistics introduces students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes:

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

College Credit: This course can be taken for college credit from Fairleigh Dickinson University

Grade: 10, 11, 12

Prerequisite: Successful completion of Algebra I.

Multivariable Calculus

260

1 Unit (Weighted Credit)

(Pending Board Approval)

Multivariable Calculus is the final course in the accelerated course sequence. Topics included are: Vectors and the Geometry of Space, Vector-Valued Functions, Functions of Several Variables, Multiple Integration, and Vector Analysis. Vectors have many applications in geometry, physics, engineering, and economics. The student builds on many of the ideas of calculus of a single variable to calculus of several variables. Technology is used regularly by students and teachers to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. Each student has their own TI-Nspire CAS calculator.

Grade: 12

Prerequisite: BC Calculus

Computer Science

261

1 Unit

The purpose of the Computer Science course is to present students with an overview of operating systems, networking and internet, data storage and manipulations, algorithms, programming languages, software engineering, data abstractions, database

systems, computer graphics, artificial intelligence and theory of computation. After successful completion of this course, students will have a good foundation so as to be successful in AP Computer Science. This course is also offered for three college credits.

Grade: 9,10, 11, 12

Prerequisite: none

College Credit: This course can be taken for college credit from Fairleigh Dickinson University

[Computer Science 2](#)

262

1 Unit

This course is an extension of Computer Science 1. Students will further their skills in writing, executing and debugging programs. Students will also learn about both sequential and random file structures, as well as how to write programs using Java.

Grade: 10, 11, 12

Prerequisite: Successful completion of Algebra IB and departmental recommendation.

College Credit: This course can be taken for college credit from Dominican College or Fairleigh Dickinson University

[AP Computer Science](#)

265

1 Unit (Weighted Credit)

AP Computer Science focuses on the development of computer programs to solve a given problem using Java. These programs should be understandable, adaptable, and reusable. The design and implementation of such computer programs, at the same time, is used as a context for introducing other important aspects of computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, the study of standard algorithms and typical applications, and the use of logic and formal methods.

Grade: 11, 12

Prerequisite: Successful completion of Algebra I

[WORLD LANGUAGES](#)

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410

1 Unit

All students are encouraged to study at least one modern language during their high school careers. In addition to gaining the valuable skill of being able to communicate in a language different from their own, the students will be able to improve their basic communication skills in English. Through their experiences in the language classroom the students will become aware of cultural differences and will be aided in developing a positive approach toward other peoples of other cultures. All world language classes are required to teach interpersonal communication and the interrelationship between language and culture as required by New Jersey Student Learning Standards 7.1 and 7.2.

[Chinese I](#)

441

1 Unit

This course introduces students to Mandarin, the most widely spoken dialect in China. The language program will enable students to attain basic language skills for communication in the interpretive, interpersonal, and presentational modes, as specified in the NJSL in World Language and the National Standards for World Language Learning. The students will learn to communicate about topics such as getting to know each other, families, feelings, hobbies, the date, time expressions, location, daily routines, weather, and food. This program is not limited to a single theory of language learning but it is based on a variety of principles and methods proven by current research to increase students' awareness and understanding of Chinese-speaking cultures. Chinese culture and history are also woven into the language lessons to lend a sense of vitality to the course.

Grade: 9,10, 11, 12

Chinese 2

442

1 Unit

This course is a continuation of skill development, combined with a significant increase in vocabulary and tenses. Students read simple selections in Mandarin based on Chinese culture, customs and traditions as a means to facilitate oral proficiency, as well as reinforce grammar, vocabulary mastery, and writing in the simplified character style. The Chinese II (Mandarin) language program has been designed to enable students to attain basic language skills for communication in the interpretive, interpersonal, and presentational modes, as specified in the National Standards for World Language Learning. This program is not limited to a single theory of language learning but it is based on a variety of principles and methods proven by current research to increase students' awareness and understanding of Chinese-speaking cultures

Grade: 10,11,12

Prerequisite: Chinese 1

Chinese 3

443

1 Unit

Chinese III is designed for students who have acquired a basic knowledge of Mandarin characters and tenses in Chinese I and II. Chinese III will cover various topics such as college life, family life, social issues, and aspects of Chinese culture. A focus on important linguistic structures helps to expand learners' understanding of Chinese grammar. Finally, Chinese III gradually introduces the more formal written-style expressions, often used in Chinese language news broadcasts and formal speeches.

Prerequisite: Chinese II

Chinese IV

444

1 Unit

This course is designed for students whose native language is English. The course will cover approximately 300-350 additional characters in addition to those already acquired in Chinese I, II and III. Chinese IV will continue to cover various topics such as travel, utilizing an airport, the environment, insurance, etc. In addition, the course will focus on important linguistic structures so as to help expand learners' understanding of Chinese grammar. Lastly, Chinese 4 will continue to introduce more formal ways of reading, writing and speaking so as to prepare students for the business world. Students will continue to increase proficiency in the three modes with culture as an integral part of the instruction.

Prerequisite: Chinese III

AP Chinese**470****1 Unit (Weighted Credit)**

The AP Chinese Language and Culture course is designed to be approximately comparable to an upper-intermediate college/university courses in Mandarin Chinese. The AP Chinese Language and Culture course in Mandarin Chinese emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Chinese Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese. The AP Chinese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). Students who enroll in this course are typically in their fourth year of high school-level Mandarin Chinese language study, however this course is open to all students who successfully complete Chinese 3 Honors

French 1**426****1 Unit**

The first year of language study gives the student the opportunity to participate in a foreign culture through learning to understand and express himself/herself in the foreign language on an elementary level, and to communicate with the new culture through the study of the family, daily routine, customs and the behavior of the people.

Grade: 9, 10, 11, 12**Prerequisite:** None**French 2****432****1 Unit**

The second year of language study gives the student the opportunity to practice and improve skills of understanding and speaking the foreign language and to continue experiences in the foreign culture.

Grade: 9, 10, 11, 12**Prerequisite:** French 1**French 3****433****1 Unit**

The third year of study will offer the student a greater fluency in the spoken language and preparation for continued studies in the fourth year.

Grade: 10, 11, 12

Prerequisite: French 2

French 3 Honors

440

1 Unit (Weighted Credit)

The third year of study will offer the student a greater fluency in the spoken language and preparation for continued studies in the fourth year.

Grade: 10, 11, 12

Prerequisite: French 2 Honors, B average, or departmental approval.

French 4 Honors

435

1 Unit (Weighted Credit)

This course continues to develop the oral skills as well as the grammatical skills within the framework of an in-depth study of culture and an introduction to literature.

Grade: 11, 12

Prerequisite: French 3 and at least a B average and/or teacher recommendation.

French 5 Honors

445

1 Unit (Weighted Credit)

This course offers additional breadth and depth in the studies developed in Level 4. Selected materials will be presented.

Grade: 12

Prerequisite: French 4 Honors and teacher recommendation.

AP French

460

1 Unit (Weighted Credit)

The AP French Language and Culture Course is approximately equivalent to an upper-intermediate college or university course in French language and culture. The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French. The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. Students who enroll in this course are typically in their fourth year of high school-level French language study, however this course is open to all students who successfully complete French 3 Honors.

Spanish for Native Speakers 1

450

1 Unit (Weighted Credit)

The course is for the native speaker of Spanish who is proficient in listening and speaking skills and wishes to develop reading and writing abilities. Reading selections from various Spanish speaking countries will be used. These will focus upon all aspects of Spanish: culture, literature, geography and history. Students will extend their knowledge of grammar and their vocabulary.

Grade: 9

Prerequisite: Fluent in Spanish, entrance exam and departmental approval.

Spanish for Native Speakers 2 **455** **1 Unit (Weighted Credit)**

This course is a continuation of Spanish for Native Speakers 1. It will emphasize the improvement of vocabulary and grammar skills. Also continued emphasis in the development of reading and writing abilities. Oral discussions to improve speaking efficiency will be held. These will be career-oriented with special focus placed on opportunities for the bilingual worker in various fields. Preparation of test taking skills for the AP Spanish Language Exam will also be covered.

Grade: 10,11,12

Prerequisite: SNS1 450 Fluent in Spanish, and departmental approval.

Spanish 1 **401** **1 Unit**

The first year of language study gives the student the opportunity to participate in a foreign culture through learning to understand and express himself/herself in the foreign language on an elementary level, and to communicate with the new culture through the study of the family, daily routine, customs and the behavior of the people.

Grade: 9, 10, 11, 12

Prerequisite: None

Spanish 2 **407** **1 Unit**

The second year of language study gives the student the opportunity to practice and improve skills of understanding and speaking the foreign language and to continue experiences in the foreign culture.

Grade: 9, 10, 11, 12

Prerequisite: Spanish 1

Spanish 2 Honors **400** **1 Unit (Weighted Credit)**

The second year of language study gives the student the opportunity to practice and improve skills of understanding and speaking the foreign language and to continue experiences in the foreign culture.

Grade: 9, 10, 11, 12

Prerequisite: Spanish 1 B average or departmental approval

Spanish 3

409

1 Unit

The third year of study will offer the student a greater fluency in the spoken language and preparation for continued studies in the fourth year.

Grade: 10, 11, 12

Prerequisite: Spanish 2- 407

Spanish 3 Honors

405

1 Unit (Weighted Credit)

The third year of study will offer the student a greater fluency in the spoken language and preparation for continued studies in the fourth year.

Grade: 10, 11, 12

Prerequisite: Spanish 2 Honors 400, B average, or departmental approval

Spanish 4

411

1 Unit

This course continues to develop the oral skills as well as the grammatical skills within the framework of an in-depth study of culture and an introduction to literature.

Grade: 11, 12

Prerequisite: Spanish 3 -409

Spanish 4 Honors

410

1 Unit (Weighted Credit)

This course continues to develop the oral skills as well as the grammatical skills within the framework of an in-depth study of culture and an introduction to literature.

Grade: 11, 12

Prerequisite: Spanish 3 Honors 405 and B average or departmental approval

AP Spanish Language & Culture

420

1 Unit (Weighted Credit)

This course is for qualified students who are planning to take the AP Spanish Exam for advanced credit or placement in a college program. The Course work follows the prescribed outline for the AP Spanish Language & Culture Exam.

Grade: 11, 12

Prerequisite: B in Spanish 4 Honors or Spanish for Native Speakers 2, and or/departmental approval.

AP Spanish Literature & Culture

425

1 Unit (Weighted Credit)

The AP Spanish Literature & Culture course is designed to provide students with a learning experience equivalent to that of a third year college course in Peninsular and

Latin American literature. The course is designed to introduce students to the formal study of a representative body of Peninsular and Latin American texts. The AP Spanish Literature & Culture course more closely approximates an introductory literature course typically taught at the college level. The reading list introduces students to the diverse literature written in Spanish and thus helps them reflect on the many voices and cultures included in the very rich literature. The text includes *Abriendo Puertas: Antología de literatura español*.

Grade: 11, 12

Prerequisite: Departmental Recommendation and AP Spanish Language & Culture 420

World Language Sequences

SPANISH

Spanish 1	401
Spanish 2 *	400
Spanish 2	407
Spanish 3 *	405
Spanish 3	409
Spanish 4 *	410
Spanish 4	411
Spanish AP Language & Culture*	420
Spanish AP Literature & Culture*	425
SNS 1*	450
SNS 2*	455
Spanish AP Literature*	425

FRENCH

French 1	426
French 2	431
French 3	433
French 4 *	435
French 5 *	445

*Weighted Credit

ENGLISH AS A SECOND LANGUAGE

This intensified program has been developed at Bergenfield High School to meet the needs of those students for whom English is the second language. Instruction in listening, speaking, reading and writing is provided at the student's particular level of language proficiency. There are various ESL courses offered, starting at beginner and progressing through advanced levels of English language proficiency. ESL class placement is determined using multiple indicators such as, ACCESS for ELLs scores,

WIDA MODEL Screener results, as well as teacher recommendation. Students in the beginner class receive language arts literacy credit from their ESL Developmental course, while the intermediate and advanced receive language arts literacy credit from their English for New Americans course. The students learn in a nonthreatening environment and are given instructions in survival, language arts and content area language skills. Throughout this program the student is encouraged to share, compare, and contrast his/her native culture and heritage with those of his/her classmates. The students' ethnicity is valued, thereby hoping to empower them in this multicultural society.

MUSIC EDUCATION

List of Courses

[AP Music Theory](#)

[Beginning Class Guitar](#)

[Beginning Class Piano](#)

[Chorale](#)

[Concert Band](#)

[Concert Choir](#)

[Concert Orchestra](#)

[Honors Vocal Ensemble](#)

[Honors Wind Ensemble](#)

[Honors Symphony Orchestra](#)

[Music Technology I](#)

[Music Technology II Honors](#)

[Philharmonia Strings](#)

[Symphonic Band](#)

[Symphonic Winds](#)

A student who elects membership in any performing organization should be aware that all performances, individual practice, and off-school-time rehearsals are inherent parts of the various courses of study. Should a student NOT wish to participate in the off-school-time rehearsals and performances, a conference with the Coordinator of Music PRIOR TO REGISTRATION should be scheduled. Limited participation in one of the performing organizations will then be arranged.

Some students will be scheduled for two music groups in a single period with shared time arranged by the music faculty. In these situations, proportionate credit will be given.

All music courses fulfill the visual and performing arts graduation requirement.

Instrumental Lab

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[Summary of Courses](#)

Students registered in one of the instrumental groups (grades 9, 10, 11, 12) are required to practice individually on their instrument. Home practice is supplemented by required labs which entail class lessons, sectional rehearsals, and/or supervised practice in the departmental practice rooms.

Chorale **842** **1 Unit**

This non-auditioned group is the school's choral ensemble of soprano and alto voices. Selected SSA music of increasing difficulty of all styles and from all periods is studied and performed. Off-school-time rehearsals, performances, and individual practice are required as an inherent part of this course. Departmental approval is required for membership.

Grade: 9, 10, 11, 12

Prerequisite: Departmental approval

Concert Choir **841** **1 Unit**

This non-auditioned group is the school's large choral ensemble of mixed voices. Selected music of increasing difficulty of all styles and from all periods is studied and performed. Off-school-time rehearsals, performances, and individual practice are required as an inherent part of this course. Departmental approval is required for membership.

Grade: 9, 10, 11, 12

Prerequisite: Chorale or departmental approval

Honors Vocal Ensemble **840** **1 Unit (Weighted Credit)**

This honors course provides an opportunity for the most advanced performers to study repertoire on a collegiate and professional level. Students will be selected for this course by audition. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course. This course fulfills the visual and performing arts graduation requirement.

Grade: 9, 10, 11, 12

Prerequisite: By audition only. Departmental assignment is required for registration.

Concert Band **823** **1 Unit**

This course offers continued training in wind band music for 9th grade wind and percussion players. It is also available to 10th, 11th and 12th grade students unable to participate in Symphonic Band because of ability or scheduling conflicts. Participation in this course is required of all students who aspire to a position in Symphonic Band. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course.

Grade: 9 (grades 10, 11 and 12 by departmental approval or assignment).

Prerequisite: Department approval or assignment is required for registration.

Symphonic Band

822

1 Unit

This course offers intermediate training in wind band music. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course. This course fulfills the visual and performing arts graduation requirement.

Grade: 9, 10, 11 and 12

Prerequisite: Departmental assignment is required for registration.

Symphonic Winds

821

1 Unit

This course offers advanced training in wind band music. Select members may be assigned to supplement Concert Orchestra when full orchestral instrumentation is required. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course.

Grade: 9, 10, 11 and 12

Prerequisite: Departmental assignment is required for registration.

Honors Wind Ensemble

820

1.2 Unit (weighted credit)

This honors course provides an opportunity for the most advanced performers to study wind band repertoire on a collegiate and professional level. Students will be selected for this course by audition. Select members will be assigned to supplement Honors Symphony Orchestra when full orchestral instrumentation is required. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course.

Grade: 9, 10, 11, 12

Prerequisite: Departmental assignment is required for registration.

Philharmonia Strings

832

1 Unit

This course offers continued training in orchestral activities for 9th grade string players. It is also available to 10th, 11th and 12th grade students unable to participate in Symphony Orchestra because of ability or scheduling conflicts. Participation in this course is required of all students who aspire to a position in Concert or Honors Symphony Orchestra. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course. Instrumental Lab is required.

Grade: 9 (or grades 10, 11 & 12 by departmental approval or assignment).

Prerequisite: Departmental approval

Concert Orchestra

831

1 Unit

This course offers intermediate training in orchestral activities for 9th and 10th grade string players. It is also available to 11th and 12th grade students unable to participate

in Symphony Orchestra because of ability or scheduling conflicts. Participation in this course is required of all students who aspire to a position in Honors Symphony Orchestra. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course. Instrumental Lab is required.

Grade: 9, 10, 11, 12 (by assignment)

Prerequisite: Departmental approval

Honors Symphony Orchestra **830** **1 Unit (Weighted Credit)**

This honors course provides an opportunity for the most advanced performers to study orchestral repertoire on a collegiate and professional level. Students will be selected for this course by audition. Off-school-time rehearsals, performances and individual practice are required as an inherent part of this course. Instrumental Lab is required.

Grade: 9, 10, 11, 12 (by assignment)

Prerequisite: Departmental approval

AP Music Theory **815** **1 Unit (Weighted Credit)**

The AP Music Theory course corresponds to one or two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills, including dictation and other listening skills, sight singing, and harmony are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the curriculum through the practice of sight singing. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are also emphasized.

Grade: 10, 11, 12

Prerequisite: Students should be able to read and write musical notation, and it is strongly recommended that the student has acquired at least basic performance skills in voice or on an instrument.

Music Technology I **804** **1 Unit**

This course will teach the principles of music composition, arranging, audio recording, digital/analog synthesis and live sound production through specialized hardware and software applications. Hands-on instruction at the computer music workstation will be combined with classroom instruction in theoretical aspects of music technology.

Strategies for digital music production will be explored through the creation of student music projects. This course fulfills either the visual and performing arts graduation requirement or career education graduation requirement.

Grade: 9, 10, 11, 12

Prerequisite: None.

[Music Technology II](#)

805

1 Unit (Weighted Credit)

This course will be a continuation of the skills learned in Music Technology I, with an emphasis on advanced recording skills using Apple Logic Pro software. Class activities will include recording, editing, mixing, and mastering of studio projects and live performances. Students will utilize the Music Technology Lab recording studio.

Grade: 10, 11, 12

Prerequisite: Successful completion of Music Technology 1

[Beginning Class Guitar](#)

846

1 Unit

Students will learn basic music fundamentals and guitar technique, including tuning, chords, melodic reading, and improvisation. Studies of different guitarists and musical styles (including classical, folk, jazz, blues and rock) will be undertaken. The class will culminate in the study and performance of traditional and modern guitar music appropriate to the student's ability. This class is for the beginning student with no prior guitar and/or musical background. .

Grade: 9, 10, 11, 12

Prerequisite: None.

[Beginning Class Piano](#)

848

1 Unit

Students will learn basic music fundamentals and piano technique, including note reading, scales, and chord progressions. Studies of different pianists and musical styles (classical, jazz, and pop) will be undertaken. The class will culminate in the study and performance of traditional and modern piano music appropriate to the student's ability. This class is for the beginning student with no prior piano and/or musical background.

Grade: 9, 10, 11, 12

Prerequisite: None

[PHYSICAL EDUCATION](#)

Directions

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Physical Education

.75 Unit

Every student is required to take the course Physical Education for three of the four marking periods during the year. All classes will be scheduled to fulfill the requirements of Title VI and Title IX which require co-educational classes. Each student's final grade will be based on the average of his/her grades received in the three assigned marking periods. Credit will be awarded for successful completion of the course based on the number of days in class per "6 Day Cycle, i.e., .75 units for a full "6 Day Cycle" and .60 units for five days per "6 Day Cycle" (students out one day for lab). Successful completion of the physical education course each year a student is enrolled is required for graduation. (A student medically excused from physical education must successfully complete alternative written assignments in order to receive credit for physical education.)

[Physical Education 9](#)

921

[Physical Education 10](#)

922

[Physical Education 11](#)

923

[Physical Education 12](#)

924

The emphasis in Physical Education is to provide students with a meaningful experience designed to develop their whole self. By developing their spirit, mind, and body, students will gain a better sense of personal fitness, health, and wellness. Our focus on personal fitness will lead students to take responsibility for designing and participating in their own fitness plan. Our philosophy is to increase fitness levels to help generate improved performance in all areas of a student's life. Through the use of our new Fitness Center and our creative instructional plan, our fitness curriculum coincides with our philosophy of fitness first. Students will also participate in team sport activities that utilize the Sport Education framework. In Sport Education, students not only participate, they also officiate, keep score, and learn about scheduling and coaching.

[HEALTH](#)

Every student is required to take the health class offering for his or her grade level in one of the marking periods during the year. Upon successful completion of the health

education course, a student will receive credit of .25 units for five days a week attendance.

Health - 9th Grade

971

.25 Unit

All ninth-grade students are required to take this course one marking period during the year. The course includes basic health practices as they relate to personal health and community health, understanding yourself and others, weight management and eating disorders, human reproduction, sexually transmitted diseases, human sexuality. In addition, the teaching of alcohol, steroid and drug abuse education as mandated by State Law is a phase of this course.

Drivers Education - 10th Grade

972

.25 Unit

Classroom Driver Education which is offered to all students is recognized as an integral part of the general education program. All 10th grade students are required to take this course for one marking period during the school year. The course provides instruction relative to: the operation of a motor vehicle; the ownership and maintenance of a motor vehicle; the responsibilities of all roadway users; the identification of all roadway features and conditions; the meaning of all traffic controls; the understanding of N.J. Motor Vehicles law and their enforcement; alcohol and drugs as they relate to driving; and, accident responsibility and insurance liability. The major aim of this course is to inculcate in students the proper habits and attitudes for the safe and efficient operation of a motor vehicle. The students will take the N.J. Motor Vehicles Services High School Test.

Health - Grade 11

973

.25 Unit

All eleventh grade students are required to take this course one marking period during the year. Noninfectious diseases, death and suicide, teenage relationships and sexuality along with basic first aid practice including CPR certification are topics covered during this course. Drug/Alcohol abuse education as mandated by State Law is a phase of this course offering.

Health - Grade 12

974

.25 Unit

All seniors are required to take this course in one of the marking periods during the year. The course of study will concentrate on the preparation for adult living by exploring the various lifestyles that are common in today's society. During the 9-week unit the following areas will be covered: the physical and psychological needs of men and women; the concerns of human sexuality; the development and understanding of relationships and their problems; the problems of sexual assault will be discussed. Concerns at the college level (i.e., frat parties) date and acquaintance rape, stranger

rape and statutory rape will be stressed. Abusive relationships from teenage abuse to abuse in marriage will be explored. Emphasis will be on why it happens, prevention and how to break the cycle of abuse. Drug abuse education as mandated by State Law is a phase of this course offering.

SCIENCE

Directions

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[Forensics](#)

[Marine Biology](#)

[Medical Terminology](#)

[Health and Wellness](#)

[Physics 1](#)

[Physics 1B](#)

[Scientific Principles of Nutrition](#)

The science department offers a wide range of courses that encourage and provide all students with the opportunity to become scientifically and technologically literate. Successful completion of three years is required for graduation. All students are encouraged to study more than the minimum. Any student enrolled in an honors class must maintain a minimum of a B average throughout the year in order to continue in the honors sequence, unless given special permission by the director.

Honors courses are offered in Biology, Chemistry, Physics, Anatomy and Physiology and Environmental Science. These courses follow the general topic outline of the

regular offerings, but in greater depth and breadth of content. Assignments involving independent research projects, critiques of current events in scientific research and critical thinking essays are all part of the curriculum throughout the year. Laboratory experiments are more intricate than those encountered by students in the regular courses, with special emphasis placed on problem-solving techniques, technological design, data and error analysis, and the development of inferences and conclusions. Moreover, honor students are expected to show an interest in the world of science outside of the classroom.

Physics 1

301

1 Unit

This college preparatory course is designed to provide the foundation for the chemistry that is taught in tenth grade, while the combination of physics and chemistry supports eleventh grade biology. This represents a very effective sequence of science instruction. As importantly, the math and physics courses are synchronized in order that they complement each other. The use of algebra in this course reinforces what is learned in Algebra. Physics-1 uses an algebra-based approach to explore topics including Mechanics (One-Dimensional Kinematics, One-Dimensional Dynamics, Uniform Circular Motion, Universal Gravitation, Work and Energy, and One-Dimensional Linear Momentum); Electricity & Magnetism (Electrostatics, Electric Fields, Electric Current, DC Circuits, Magnetic Fields, Electromagnetic Induction); and Simple Harmonic Motion, Waves & Light (Spring – Mass Systems, The Pendulum, Wave Properties, Electromagnetic Waves, Light as a Wave, Two Slit Experiment, Photoelectric Effect, Light as a Particle, Matter Waves, The Bohr Model of the Hydrogen Atom).

Grade: 9

Prerequisite: None.

Physics 1 B

303

1 Unit

This course is a first-year of physics for students who are considering college but are not planning to pursue a career in science or engineering. The course content is presented in an inquiry-based, conceptual manner and designed to provide students with insight as to how things work by allowing them to experiment “hands-on” with Content-related demonstration equipment. This inquiry-based approach will cover the fundamental concepts of 1) forces and motion, 2) matter and energy systems, 3) energy transformation, 4) electricity and magnetism, 5) sound and vibration, and 6) light and optics. Although fundamental algebraic relationships will be presented and discussed, emphasis will be placed on the relationships that exist between variables (i.e. the effect that changing one or more variables may have on others).

Grade: 9

Prerequisite: Acceptance into this course will be based on NJASK and NWEA test Scores.

Biology

322

1 Unit

This course offers an organized scientific framework for posing and answering questions about the world. This college preparatory course introduces students to the major biological concepts such as, biochemistry, cell and molecular biology, reproduction and development, genetics, evolution, ecology, microbiology and taxonomy. Emphasis is placed on scientific inquiry and process. Students extensively use the microscope, and learn dissection techniques. The science department follows guidelines suggested by the National Association of Biology Teachers in the use of animals in science classes. Alternative learning experiences will be provided for students who do not wish to participate in activities involving animals, e.g. dissections.

Grade: 10,11

Prerequisite: None

Biology Honors

320

1 Unit (Weighted Credit)

This course addresses all major biological concepts ranging from the molecular to the community level. The course is laboratory activity-centered, and various learning tools such as websites, animations, field trips and note booking are employed. Units studied concern the diversity and unity of life; cell structure and function; chemicals of life; mitosis, meiosis and development; genetics and evolution; photosynthesis; respiration; plant structure and function; mammalian structure and function; population biology. Each marking students will be required to complete a research project, which they will present to their peers. Observational skills, data collection, analysis and processing are emphasized; therefore proficiency in mathematics is necessary. This course prepares students for the advanced level science courses.

Grade: 10,11

Prerequisite: A in Algebra 1 and A in Physical Science in 9th grade. With departmental approval a student who does not meet these criteria may be eligible to take a departmental screening test and must attain a score of 70 or higher.

AP Biology

360

1.2 Unit (Weighted Credit)

This program has been developed to provide the student with a deep understanding of eight major themes in biology. These are: 1) Science as a Process 2) Evolution 3) Energy Transfer 4) Continuity and Change 5) Relationship of Structure to Function 6) Regulation 7) Interdependence in Nature and 8) Science, Technology and Society. The course is lab activity-centered, with blocks of time devoted for laboratory work. There will be twenty-six distinct laboratory activities, including the twelve that are required by the College Board AP committee. The Molecular Biology lab activity (#6) will be conducted at the DNA Learning Center in Long Island, NY. All labs are designed to enhance learning experiences and prepare the students for college level biology courses. Students will be required to take the AP Biology Test in May. This gives them the opportunity to bypass a corresponding introductory college course and perform significantly better in upper-level courses.

Grade: 11, 12

Prerequisite: B+ in Biology and B in Chemistry.

Marine Biology**324****1 Unit**

This course introduces students to the principles of the biology of organisms in the marine environment with special emphasis on the zonation of marine life, on regional, vertical and temporal scales, as well as adaptation to the physical and chemical environment in the oceans. Topics will include physical and biological oceanography, the diversity of marine organisms ranging from the microscopic to the macroscopic and marine ecosystems.

Grade: 11, 12**Prerequisite:** Biology & Chemistry or co-enrolled in Chemistry**Chemistry****332****1 Unit**

This course involves the study of the composition, structure, and changes in matter and introduces the student to the fundamental principles of chemistry. The laboratory experiments emphasize these concepts and utilize the mathematics and problem-solving techniques of Algebra 1.

Grade: 9, 10, 11, 12**Prerequisite:** Algebra 1**Chemistry Honors****330****1 Unit (Weighted Credit)**

This course focuses on the study of the composition, structure, and changes in matter. It is recommended to students who are especially interested and/or competent in science and /or who are thinking about or planning a career in science or a science-related field. The ability to use arithmetic principles and the utilization of the problem-solving techniques of Algebra I are essential.

Grade: 9, 10, 11**College Credit:** This course can be taken for college credit from Bergen Community College**AP Chemistry****335****1.2 Unit (Weighted Credit)**

This second year chemistry course is organized to provide the student with a strong background in the principles of chemistry to serve as a basis for continuing the study of science or engineering. Students are required to take the Advanced Placement Test, which closely follows the Advanced Chemistry outline. Emphasis is placed on mastering the fundamentals of chemistry in a way that assists the student to develop the ability to think clearly and to express ideas orally and in writing with clarity and logic. The laboratory part of the course offers an introduction to qualitative and quantitative analysis. This course uses equipment and apparatus used on the college level. Two double lab periods are devoted to lab activities.

Grade: 10, 11, 12**Prerequisite:** B- in Algebra 2, Honors Chemistry or departmental approval. If in STEM program for grade 10 must take concurrent with Honors Biology.

Physics Honors**340****1 Unit (Weighted Credit)**

Students will learn to successfully apply the laws of physics by repeatedly and actively testing their ideas through investigation, debate and reflection. Working cooperatively, students will develop and test their understanding of the basic models of Newtonian physics and geometric optics. These models can only be internalized through a variety of modes of communication and experience including kinesthetic and laboratory experiences, seeing, writing, hearing, graphing and thinking. Honors physics is recommended for those students with a greater level of comfort with algebra and geometry and an interest in a science related field including technology and medicine.

Grade: 10, 11, 12**Prerequisite:** B in previous honors science course, B in previous math course, (minimum of Algebra II as co-requisite)**AP Physics 1: Algebra-Based****355****1.2 Unit (Weighted Credit)**

This course is a second-year of physics for college-bound students planning to pursue a career in science or engineering. Students will learn about the foundational principles of physics as you explore Newtonian mechanics; work, energy, and power; mechanical waves and sound; and introductory, simple circuits. You'll do hands-on laboratory work to investigate phenomena. Students are required to take the Physics Advanced Placement 1 Exam at the completion of the course. As such, it follows the AP College Board's Advanced Placement outline. As all students have already taken one year of Honors Physics or PSI (Physics First), two double lab periods are provided to allow for advanced lab work. The syllabus is analogous to a first-year college physics course taken by science majors. Students must score a "3", or for some colleges or universities a "4" or higher on the AP Exam in order to receive college credit.

Grade: 9,10,11,12**Prerequisites:** 1) Honors Physics or PSI physics, and 2) Trigonometry, or 3) Advanced Algebra or Pre-Calculus.**AP Physics 2: Algebra-Based****385****1.2 Unit (Weighted Credit)**

AP Physics 2 is equivalent to most college-level introductory physics courses with a focus on the following topics: fluid statics and dynamics, thermodynamics, PV diagrams and probability, electrostatics, electrical circuits with capacitors, magnetic fields, electromagnetism, physical and geometric optics, and other topics in modern physics. AP Physics 1 or PSI physics should be taken before this course, which covers traditional mechanics and other important introductory topics. This course emphasizes problem solving in the context of the principles of physical laws and principles; as well as the ability to apply that knowledge and skill to phenomenon in either an experimental or theoretical setting. Great attention is given to strengthening and reinforcing the

natural connections between the sciences and real world. Students will be involved in problem solving, inquiry-based laboratory activities on an individual, small group and large group basis. Through this process the ability to read and understand problems, break them down into their component parts and then create and present solutions will be developed. About 25% of instructional time will be spent on hands-on laboratory activities with an emphasis on inquiry-based investigations. Much of the work done in the laboratory will include designing experiments and the gathering of data. That data will then be analyzed using software including Word and Excel. Through this process both analytical techniques as well as technological capability will be developed.

Grade: 9,10,11,12

Prerequisites: 1) Honors Physics or PSI physics, and 2) Trigonometry, or 3) Advanced Algebra or Pre-Calculus.

[AP Physics C: Calculus-Based](#)

380

1.2 Unit (Weighted Credit)

AP Physics C is the first and/or second semester of the second or third year of a two or three-year sequence that is designed to prepare students to take the AP Physics C Mechanics or Electricity and Magnetism examinations or both. It begins by integrating the use of calculus (differentiation and integration) into the AP Physics topics. This allows students to solve calculus based problems. This course emphasizes problem solving in the context of the principles of physical laws and principles; as well as the ability to apply that knowledge and skill to phenomenon in either an experimental or theoretical setting. Great attention is given to strengthening and reinforcing the natural connections between the sciences and with mathematics. Proper preparation to take this course includes the completion of Physics Honors, and AP Physics 1 or 2. While it is best if Calculus is completed prior to the start of this course; it is possible to take it in parallel if the student can commit additional time and effort. Students will be involved in problem-solving activities on an individual, small group and large group basis. Through this process the ability to read and understand problems, break them down into their component parts and then create and present solutions will be developed. These same skills will be developed with activities in the physics laboratory. In that case, problem solving will be done in real time with hands-on problems. Much of the work done in the laboratory will include designing experiments and the gathering of data. That data will then be analyzed using software including Word and Excel. Through this process both analytical techniques as well as technological capability will be developed.

Grade: 9,10,11,12

Prerequisites: 1) Honors Physics or PSI physics, and 2) Trigonometry, or 3) Advanced Algebra or Pre-Calculus.

[Forensics](#)

312

1 Unit

Forensic Science is focused upon the application of scientific methods and techniques to crime and law. This course is open to 11th and 12th graders. Recent advances in scientific methods and principles have had an enormous impact upon law enforcement

and the entire criminal justice system. Forensics is a course that has been developed with Syracuse University through Project Advance. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed upon the techniques used in evaluating physical evidence. Topics covered in the course include: blood analysis, organic and inorganic evidence analysis, microscopic investigations, hair analysis, DNA, drug chemistry and toxicology, fiber comparisons, paint, glass compositions and fragmentation, fingerprints, soil comparisons, and arson investigations, among others. Laboratory exercises will include techniques commonly employed in forensic investigations. This is a college level course and students may earn 4 college credits upon successful completion. The concurrent enrollment partnership (CEP) allows students to enroll in regular college courses while still in high school.

Grade: 11, 12

Prerequisite: Successful completion of Biology, Chemistry and Physics (or co-enrolled) with a minimum grade of B

Environmental Science

361

1 Unit

Today, the science which deals with the interactions of humans and their environment is considered central. Environmental Science incorporates Biology, Chemistry, Physics, Mathematics and the Social Sciences in an effort to scientifically and wisely manage the limited resources of our world.

Grade: 11, 12

Prerequisite: None.

AP Environmental Science

370

1.2 Unit (Weighted Credit)

This course is designed to be the equivalent of a one semester, introductory college course in environmental science that includes a laboratory and field investigation component. Emphasis is placed on the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. One double lab period will provide additional time necessary for field and laboratory work. Students are required to take the AP Exam.

Grade: 10, 11, 12.

Prerequisite: B in Physics 1 and Chemistry unless in STEM program.

Anatomy and Physiology 1 Honors

365

1 Unit (Weighted)

This course focuses on the structure and physiology of the cell, tissue, integumentary system, skeletal system, muscular system and the nervous system. Students who have also successfully completed the Dynamics of Health-Care course and all UMDNJ

requirements prior to high school graduation are eligible to take the UMNDJ examination to receive college credits Anatomy of Physiology 1 (4 credits) and/or college credit from Bergen Community College or Rutgers. ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 10,11, 12

Prerequisite: B+ in Biology and B in Chemistry or departmental approval

College Credit: This course can be taken for college credit from Bergen County College or Rutgers

Anatomy and Physiology 2 Honors 375

1 Unit (Weighted)

This course focuses on the structure and physiology of the endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, reproductive system and special senses. Students who have also successfully completed the Dynamics of Healthcare and Anatomy and Physiology 1 courses and all UMDNJ requirements prior to high school graduation are eligible to take the UMDNJ examination to receive college credits for Anatomy and Physiology II (4 credits). ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 11, 12

Prerequisite: Anatomy and Physiology I

Dynamics of Healthcare 371

.5 Unit

This course provides an orientation to health care services and delivery. The course is open to 10th, 11th and 12th grade students. Students who take this course should have a sincere interest in entering the healthcare field. The course delivers an interdisciplinary perspective, with a focus on process skills to include critical thinking, ethical reasoning, effective communication, and self-directed learning abilities. Professional competencies as applied to general issue and topics common to all health providers are stressed. Emphasis is placed on the role of the health care practitioner as both the provider and consumer of healthcare services. Students will be eligible to take the University of Medicine and Dentistry of New Jersey examination for college credit (3 credits) pending satisfactory completion of the course requirements. ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 10, 11, 12

Prerequisite: Minimum C average in previous science course(s)

Medical Terminology 376

1 Unit

This full-year course is designed to give direction to the student who has little experience in scientific or medical subjects as well as providing students with the

fundamental concepts of scientific and medical terminology. The course is open to 11th and 12th graders. The content includes study of scientific and medical terms, prefixes, suffixes, and word roots used in developing a medical vocabulary. A word building system approach is utilized as well as the study of scientific and medical terminology and introduction to basic body structures. Students are eligible for University of Medicine and Dentistry of New Jersey college credit (3 credits) pending satisfactory completion of the course requirements and UMDNJ examination. ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 10, 11, 12

Prerequisite: B - in Biology

Health & Wellness

378

.5 Unit

The objective of this course is to provide students with a basic understanding of the fundamental practice of medicine and its various disciplines along with the nature of disease. Topics covered include: introduction to body systems, general histology, general microbiology, pathophysiology of disease, medical imaging, and the use of technology in medicine. ***This course fulfills the state requirement for one unit in career education required for graduation.***

Grade: 10,11, 12

Prerequisite: B- in Biology

Scientific Principles of Nutrition

302

1 Unit

This course outlines the relationship of diet, lifestyle and the prevention of disease. An overview of digestion, absorption and metabolism of protein, carbohydrates, fats, vitamins and minerals is provided. Nutritional needs at various stages of the lifespan are stressed. Applying the science of nutrition to your life, including needs for fitness and physical activity, evaluating nutrition claims, food labeling and other consumer concerns, are emphasized.

Grade: 10,11,12

Prerequisite: Successful completion of Biology

SOCIAL STUDIES

Directions

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[List of Courses](#)

- [AP Art History](#)
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- [U.S. History II Honors](#)

The goal of the Social Studies Department is to prepare all students to become lifelong learners and to examine and evaluate issues of importance to all Americans. Students will acquire a high degree of literacy in civics, history, economics, and geography as well as developing critical thinking skills, which enable them to apply this knowledge to their lives as citizens. Throughout the Social Studies program, students are exposed to higher-level thinking and learning skills as well as document-based instruction to enhance the students' sense of inquiry. The objectives of the Honors/AP program in Social Studies focus on the analysis, synthesis, and evaluation of historical data. Students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors/AP students must additionally demonstrate their ability to be effective writers in order to enhance communication and shared knowledge within the classroom.

[Modern World History and Geography](#)

116

1 Unit

This course provides the students with an introduction to the major historic events, concepts, and ideas in world history. Students will analyze the transition from wartime alliances to new patterns of global conflict and cooperation, and the reconstruction of Europe and Asia. This course includes: 1) the impact of great revolutions in modern history, 2) an understanding of the concept of development, 3) cultural, social, and

political changes in the modern era, and 4) an understanding of the world in spatial terms (application of geographical tools and supporting technologies such as GPS, the internet, and use of physical and human characteristics of the world to answer complex geographical questions and problems).

Grade: 9

Prerequisite: None

Modern World History and Geography Honors

120

1 Unit (Weighted Credit)

An enriched version of Modern World History and Geography is available for qualified and motivated students. The objectives of the Modern World History and Geography Honors course focus on the analysis, synthesis, and evaluation of historical data. Students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors students must additionally demonstrate their ability to be effective writers in order to enhance communication and shared knowledge within the classroom. Students must be able to read at an advanced level.

Grade: 9

AP World History

125

1 Unit (Weighted Credit)

The AP World History course content is structured around the investigation of five course themes and 19 key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present. The AP World History course develops students' capacity and ability to think and reason in a deeper, more systematic way, better preparing them for subsequent college courses; the four historical thinking skills on which this course is based are: 1. Crafting Historical Arguments from Historical Evidence 2. Chronological Reasoning 3. Comparison and Contextualization 4. Historical Interpretation and Synthesis. The five themes on which the course is based are: Theme 1: Interaction Between Humans and the Environment Theme 2: Development and Interaction of Cultures Theme 3: State-Building, Expansion, and Conflict Theme 4: Creation, Expansion, and Interaction of Economic Systems. Theme 5: Development and Transformation of Social Structures.

Grades: 10, 11, 12

U.S. History I

132

1 Unit

The content of this course will encompass the American experience from the origins of civilization in North America to the expansion of the US western region. This course will focus on how different generations of Americans coped with the challenges of building a new society in a New World. The following themes will be studied in chronological order: early Americans; European exploration/settlement; the colonial generations; the revolutionary generations, gaining independence and establishing a new government; developing the new Republic; the generation of crisis origins/consequences of the Civil

War, Reconstruction, and expansion of the US western region through the beginning of the 20th century.

Grade: 10

U.S. History I Honors

130

1 Unit (Weighted Credit)

An enriched version of U.S. History is available for qualified and motivated students. This course will focus on the analysis, synthesis, and evaluation of historical data. Students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors students must additionally demonstrate their ability to be effective writers, in order to enhance communication and prepare for college and careers.

Grade: 10

U.S. History II

142

1 Unit

The content of this course will encompass the American experience from the 20th century on, and how different generations have met the challenges of urbanization, immigration, war and industrialization. This course will stress the following themes in chronological order: the United States becomes an industrialized society, attempts to deal with the consequences of industrialization and urbanization, issues of war and peace, changing patterns of immigration, the rise of suburbia, changing roles of workers, women, minorities, popular culture from the 1920's through the 1960's, changing interpretations of the U.S. Constitution, the presidency in American politics, and the U.S. role in a global community.

Grade: 11

Prerequisite: US History I

U.S. History II Honors

140

1 Unit (Weighted Credit)

An enriched version of U.S. History II is available for qualified and motivated students. The objectives of this course focus on the analysis, synthesis, and evaluation of historical data. Students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors students must additionally demonstrate their ability to be effective writers, in order to enhance communication and prepare for college level work. Students must be able to read at an advanced level.

Grade: 11

AP Art History

785

1 Unit (Weighted Credit)

The objective of this course is to provide a comprehensive survey of Western Art accompanied with a look at non Western Art. This course will offer an introduction to art appreciation, the history of art and the unique relationships that exist between man and art. Limited studio projects will complement the academic study of art. Written papers and readings are required as is participation in group critiques, museum visits and field trips. Counts as visual and performing art credit.

Grade: 11, 12.

Prerequisite: None

AP U.S. History

145

1 Unit (Weighted Credit)

As an Advanced Placement (AP) course that is equivalent to an entry-level college class, this course has the highest level of expectations with regard to the quality of performance and independent student work ethic. AP U.S. History follows the curriculum recommendations of the College Board. Students must take the AP U.S. History exam and score a 3 or better to receive AP credit for this course.

Grade: 11, 12

College Credit: This course can be taken for college credit from Fairleigh Dickinson University or Dominican College

AP European History

155

1 Unit (Weighted Credit)

The Advanced Placement European History course is considered the equivalent of a full year, freshman college survey course in western civilization. The course is designed to prepare students for the AP European History exam in May. Students who pass the exam (3 or better out of 5) may earn college credits. In addition to providing a basic narrative of events and movements, the goals of the AP European History program are to develop: (a) an understanding of the principal themes in modern European history, (b) an ability to analyze historical evidence, and (c) an ability to analyze and express historical understanding in writing. What sets this course apart from an honors course is extensive reading of college level texts, combined with a heavy emphasis upon analytical skills that include forming and substantiating various historical hypotheses. Major themes of the course include the basic chronology and major events and trends in European history from approximately 1350 to the present, as well as various interpretations of the European past. Significant emphasis is given to political and diplomatic history, intellectual and cultural history, and social and economic history. All students enrolled in AP European History will take the AP European History Exam in May.

Grade: 10, 11, 12

AP US Government

165

1 Unit (Weighted Credit)

& Politics

This course is designed to provide students with an opportunity to develop an informed and critical knowledge of U.S. government and politics. Students will study in-depth general concepts, ideals and beliefs associated with the U.S. political system as well as case studies of how the system actually operates. Students must take the AP U.S. Government & Politics exam for which they may receive advanced credit or placement from institutions of higher education to which they have been accepted. Students must score a 3 or better on the AP U.S. Government & Politics exam to receive AP credit for this course; otherwise, honors credit will be awarded.

Grade: 11, 12

Law and the Citizen

136

1 Unit

This course is designed to inform students about the U.S. judicial system. Students will understand the federal and state Constitutions and how the U.S. democracy works. A variety of life skills material will be stressed, including: handling personal financial responsibilities, effective participation in the political process, consumer rights and responsibilities, privacy law, understanding language and media, basic issues in civil and criminal law, family law, lawsuits and development of students understanding of the voting process.

Grade: 11, 12

Foundations of Human Behavior

156

1 Unit

This course is based on the study of the relationships between the individual and the groups and institutions that shape society as well as the individual's understanding of themselves and others in modern society. The purpose of this course is to give students an introduction to the fields of sociology and psychology. Students will focus on the social structure, patterns of culture, social class, deviance, mass media, and social problems. In addition, students will study human behavior, such as personality traits, development of self-esteem, altered states of awareness, dreams, emotions, and other concepts.

Grade: 10, 11, 12

AP Psychology

160

1 Unit (Weighted Credit)

The Advanced Placement Psychology course is considered the equivalent of a full year, freshman college course. It is designed to prepare students for the AP Psychology exam in May. Students who pass the exam (3 or better out of 5) may earn college credits. This is a rigorous course that will ask students to think critically about various topics in various fields of psychology. Students will present arguments and analysis in writing and through presentations. This is a full year elective course. All students enrolled in AP Psychology will take the AP Psychology exam in May.

Grade: 10, 11, 12

Economics

168

1 Unit

This course will provide students with the economic knowledge and skills necessary for a broad understanding of the political, social, and historical events needed to engage in a successful career and experience financial success during the 21st century. The role of consumer, producer, saver, and investor will be analyzed so that economic principles, analytical tools, concepts and philosophy can be effectively learned. This course fulfills the state requirement for one unit of financial literacy required for graduation.

Grade: 10, 11, 12

AP Microeconomics (will not run 20-21) **135**

1 Unit (Weighted Credit)

AP Macroeconomics (will run 20-21) **170**

1 Unit (Weighted Credit)

The Advanced Placement Macroeconomics Economics course is considered the equivalent of a full year, freshman college course. It is designed to prepare students for the AP Economics exam in May. Students who pass the exam (3 or better out of 5) may earn college credits. The course will ask students to think critically about problems in economics, propose solutions to economic problems, and present these solutions clearly and persuasively in writing and through presentations. The microeconomics course will focus on the effect of individual decision-making in the area of economics and the role of government in the economic system. The macroeconomics course will focus on a global economics perspective. Each course is a full year elective course and will be offered every other year. All students enrolled in AP Economics will take the AP Economics exam in May. This course fulfills the state requirement for one unit of financial literacy education required for graduation.

Grade: 10, 11, 12

AP Human Geography

175

1 Unit (Weighted Credit)

AP Human Geography is a multi-disciplinary course designed to prepare students for the rigors of a college level social sciences class. Students will focus on humanity's interaction with their environment, and how this interaction influences social development. The course content is as follows: Geography: its Nature and Perspective, Population and Development, Agriculture, Industrial Development, and Resource Use, Cities and Urban Land Use, Cultural Processes – Migration and Language, Cultural Processes – Religion, Folk, and Pop Culture, Ethnicity and Political Organization. The course culminates with the AP Human Geography exam offered in May. Many colleges provide students with college credit for a passing grade on this particular exam; for many universities this credit meets general education requirements. This class is ideal for anyone interested in international relations, business, civil engineering, language and cultural studies, sociology, anthropology, environmental science, and

much more, and prepares students to meet the rigors of reading and writing about university level non-fiction texts.

Grade: 10, 11, 12

Civics

146

.5 Unit

This half-year (one semester) course is offered to ninth graders in conjunction with Research & Writing or Capstone Foundations; the purpose of the course is to build a solid Civics foundation for high school students. Students will study how government works at the federal, state, and local levels, as well as understand their responsibilities to society from a civics perspective.

Grade: 9

SPECIAL EDUCATION

List of Special Courses besides RC Replacement, RC In Class Support, RC Support, LLD, MD, Autistic Classes

Cooperative Education/ Work Experience

The Special Education Department of Bergenfield High School provides programs for students that are designed to meet their individual needs. The student's program is developed at an Individual Education Program Meeting (IEP). The program that is designed at this meeting is based on the student's ability, performance and transition goals.

Depending on a student's ability level, there is a range of course options from the student attending all general education classes with a special education in-class or support class to the student taking all academic courses in special education replacement classes.

The courses offered by the Special Education Department change from year to year based on the needs of the students, core curriculum standards and graduation requirements.

**Cooperative Education/
Work Experience**

696

3 Units

This program integrates classroom work with practical work experience under the supervision of an SLE endorsed teacher. For the work phase of the program students work in a supervised job setting in the afternoon following morning courses.

Grade: 11, 12

Prerequisite: IEP

[CROSS DISCIPLINARY COURSES](#)

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List of Courses

[Teacher Apprenticeship Program \(T.A.P.\)](#)

[Satellite School](#)

[Community Service](#)

[Teacher Apprenticeship Program \(T.A.P.\)](#) A006

2 Units

T.A.P. is a course for seniors who are interested in exploring teaching as a career. A student considering a career as a counselor, social worker, child psychologist, nurse, etc. are also welcome to sign up. It is a two period elective that utilizes a hands-on approach to learning. For the first three weeks of school, students will explore the theory portion of the course: characteristics of a good teacher, positive feedback and motivational techniques, grade level characteristics, classroom management skills, and student-teacher relationships will be discussed. After the classroom aspect of the course, the student will spend two periods per day, five days a week, working first-hand with an elementary or middle school teacher as his/her cooperating teacher. Teacher apprentices are expected to carry out daily duties of a teacher, as directed by their cooperating teacher. Grading papers, checking homework, putting up bulletin board displays, proctoring tests, and providing one on one (or a small group) tutoring are all possible. A weekly journal and final project are required.

Counts as career education credit.

Grade: 12

Prerequisite: 2.7 GPA, No major disciplinary infractions from grades 9-12, intention to enter the field of education, signed contract required, and no criminal record.

[Satellite School](#)

686 - 699

4 Units

The satellite program is a shared-time program between Bergenfield High School and Bergen County Technical Education Center in Paramus. For one half of the school day, students attend their home school for academic instruction, for the remainder of the day, the students prepare for vocational and technical careers at the technical education center.

Grade: 12

Prerequisite: Acceptance by Bergen Technical Education Center in Paramus

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Community Service

Students will be recognized for their service to the community based upon hours of supervised service. Students can obtain up to 1 credit per school year for community service. However, prior to obtaining this credit the service must be approved by their guidance counselor and onsite supervisor. Each student must complete and return the school/community service student log sheet to their guidance counselor for consideration of elective credit. Once granted, credit is placed on the student’s high school transcript: every 30-service hours will earn .25 elective credit to a maximum 1 elective credit per school year. Students total credits will be calculated and given at the end of the school year. Please see your guidance counselor or go onto Bergenfield.org website for more details.

CORE ACADEMIC DEPARTMENTS

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- [SOCIAL STUDIES DEPARTMENT](#)
- [SCIENCE DEPARTMENT](#)
- [WORLD LANGUAGES DEPARTMENT](#)

NON CORE ACADEMIC DEPARTMENTS

- [ART DEPARTMENT](#)
- [BUSINESS AND MARKETING DEPARTMENT](#)
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Course	Course Number	Grade Offered				Units
		9	10	11	12	
Core Academics						
<u>ENGLISH DEPARTMENT</u>						
AP Language and Composition	035			X	X	1*
AP Literature and Composition	045			X	X	1*
AP Research	070			X	X	1*

AP Seminar	065		X	X		1*
English for New Americans	011A,011B, 011C	X	X	X	X	1
Capstone Foundations	055	X				.5*
Creative Writing	046	X	X	X	X	1
Beginning Drama and Theatre	052	X	X	X	X	1
Advanced Drama and Theatre	054		X	X	X	1
English 9	012	X				1
English 9 Honors	015	X				1*
English 10	022		X			1
English 10 Honors	025		X			1*
English 11	032			X		1
English Composition	042				X	1
Journalism 1	051	X	X	X	X	1
Journalism 2	061		X	X	X	1
Journalism 3	071			X	X	1
Journalism 4	081				X	1
Research & Writing	091	X				.5
Visual Literacy	047	X	X	X	X	1
Public Speaking	048		X	X	X	1
MATHEMATICS DEPARTMENT						
AP Calculus AB	245			X	X	1*
AP Calculus BC	255			X	X	1*

AP Computer Science	265			X	X	1*
AP Probability and Statistics	250			X	X	1*
Algebra 1 CP	209, 211	X				1
Algebra 2	231 B, C		X	X	X	1
Algebra 2 Honors	230		X	X	X	1*
Calculus Honors	240				X	1*
Computer Science	261	X	X	X	X	1
Computer Science 2	262		X	X	X	1
Geometry Honors	225	X	X			1*
Integrated AlgGeo 1	212		X			1
Integrated AlgGeo 2	213			X		1
Integrated Math 3	216			X		1
Multivariable Calculus	260				X	1*
Medical Math	214		X	X	X	.5
Plane Geometry	221	X	X			1
Pre-Calculus	241			X	X	1
Pre-Calculus Honors	235			X	X	1*
Probability and Statistics	237			X	X	1
<u>SOCIAL STUDIES DEPARTMENT</u>						
AP Art History	785			X	X	1*
AP U.S. History	145			X	X	1*
AP US Government & Politics	165			X	X	1*
AP Microeconomics	135		X	X	X	1*
AP Macroeconomics	170		X	X	X	1*
AP European History	155		X	X	X	1*

AP Human Geography	175		X	X	X	1*
AP Psychology	160		X	X	X	1*
AP World History	125		X	X	X	1*
Economics	168		X	X	X	1
Foundations of Human Behavior	156		X	X	X	1
Law and the Citizen	136		X	X	X	1
Modern World History and Geography	116	X				1
Modern World History and Geography-Honors	120	X				1*
U.S. History I	132		X			1
U.S. History I Honors	130		X			1*
U.S. History II	142			X		1
U.S. History II Honors	140			X		1*
Civics	146	X				.5
SCIENCE DEPARTMENT						
AP Biology	360			X	X	1.2*
AP Chemistry	335		X	X	X	1.2*
AP Environmental Science	370	X	X	X	X	1.2*
AP Physics 1	355		X	X	X	1.2*
AP Physics 2	385	X	X	X	X	1.2
AP Physics C	380		X	X	X	1.2
Anatomy and Physiology 1 Honors	365		X	X	X	1*
Anatomy and Physiology 2 Honors	375			X	X	1*

Biology	322		X	X		1
Biology Honors	320		X	X		1*
Chemistry	332		X	X	X	1
Chemistry Honors	330		X	X		1
Green Tech Biology	323			X	X	1
Green Tech Chemistry	306		X	X	X	1
Green Tech Physics	304	X	X	X	X	1
Dynamics of Healthcare in Society	371		X	X	X	.5
Environmental Science	361			X	X	1
Forensics	312			X	X	1
Marine Biology	324			X	X	1
Medical Terminology	376		X	X	X	1
Health and Wellness	378		X	X	X	.5
Physics 1	301	X				1
Physics 1B	303	X				
Scientific Principles of Nutrition	302		X	X	X	1
WORLD LANGUAGES DEPARTMENT						
AP Spanish	420			X	X	1*
AP Spanish Literature	425			X	X	1*
AP Chinese	470			X	X	1*
AP French	460			X	X	1*
Chinese 1	441	X	X	X	X	1
Chinese 2	442		X	X	X	1
Chinese 3	443		X	X	X	1

Chinese 4	444			X	X	1
French 1	426	X	X	X		1
French 2	432	X	X	X	X	1
French 3	433		X	X	X	1
French 3 Honors	440		X	X	X	1*
French 4 Honors	435			X	X	1*
French 5 Honors	445				X	1*
Spanish for Native Speakers 1	450	X				1*
Spanish for Native Speakers 2	455		X	X	X	1*
Spanish 1	401	X	X	X	X	1
Spanish 2	407	X	X	X	X	1
Spanish 2 Honors	400	X	X	X	X	1*
Spanish 3	409		X	X	X	1
Spanish 3 Honors	405		X	X	X	1*
Spanish 4	411			X	X	1
Spanish 4 Honors	410			X	X	1*
NON CORE ACADEMIC DEPARTMENTS						
ART DEPARTMENT						
AP Studio Art Drawing	770			X	X	1*
AP Studio Art 2D Design	<u>775</u>			X	X	1*
AP Studio Art 3D Design	780				X	1*
Art Lab	774/776			X	X	.5
Art Prep	791			X	X	.5
Artscope	751	X	X	X	X	1
Ceramics	761	X	X	X	X	1

Creative Video/Film Analysis 3H	790			X	X	1*
3-D Designs in Sculpture	757	X	X	X	X	1
Digital Photography	788	X	X	X	X	1
Drawing and Printmaking	752	X	X	X	X	1
Fashion Design, & Advertising	784	X	X	X	X	1
Painting	754	X	X	X	X	1
Television Studio Production I	793	X	X	X	X	1
Television Studio Production II	794		X	X	X	1
TV/Film Independent Study 4 H	795				X	1*
BUSINESS AND MARKETING DEPARTMENT						
Business Dynamics	501	X	X	X	X	1
Business Law and Ethics	508		X	X	X	1
Business Communication	503	X	X	X	X	1
Fundamental College Financial Accounting and Reporting Principles	500	X	X	X	X	1*
Fundamental College Accounting II Honors	505		X	X	X	1*
International Business	512		X	X	X	1
Sports, Fashion, Recreation and Entertainment Marketing	504	X	X	X	X	1
Marketing I: Marketing Essentials	506	X	X	X	X	1
Finance and Money Management	516		X	X	X	1
IP STEM Program Project	<u>IP STEM</u>	X	X	X	X	

CROSS DISCIPLINARY PROGRAM						
Teacher Apprenticeship Program (T.A.P.)	A0006				X	2
Satellite School	686-699				X	4
Community Service		Up to 1 credit a school year				
MUSIC DEPARTMENT						
AP Music Theory	815	X	X	X	X	1*
Beginning Class Guitar	846	X	X	X	X	1
Beginning Class Piano	848	X	X	X	X	1
Concert Choir	841	X	X	X	X	1
Concert Band	823	X	X	X	X	1
Concert Orchestra	831		X	X	X	1
Philharmonia Strings	832	X				1
Honors Vocal Ensemble	840	X	X	X	X	1*
Honors Wind Ensemble/Marching Band	820	X	X	X	X	1.2*
Music Technology I	804	X	X	X	X	1
Music Technology II	805		X	X	X	1
Symphonic Band	822	X	X	X	X	1
Symphonic Winds/ Marching Band	821		X	X	X	1
Honors Symphony Orchestra	830			X	X	1*
PHYSICAL EDUCATION DEPARTMENT						
Drivers Education - 10th Grade	972		X			.25
Health - 9th Grade	971	X				.25
Health - Grade 11	973			X		.25

Health - Grade 12	974				X	.25
Physical Education 9	921	X				.75
Physical Education 10	922		X			.75
Physical Education 11	923			X		.75
Physical Education 12	924				X	.75
TECHNOLOGY EDUCATION DEPARTMENT						
AP Computer Science Principles	635	X	X	X	X	1*
A+ IT Essentials	603	X	X	X	X	.5
<u>A+ IT Technician</u>	604	X	X	X	X	.5
<u>Design Foundation: Architecture to Robotics I</u>	651	X	X	X	X	1
Design Foundation: Architecture to Robotics II	652		X	X	X	1
Design Foundation: Architecture to Robotics III- Honors	650			X	X	1*
Cisco Discovery 1 CCENT Semester 1	600		X	X	X	.5*
Cisco Discovery 1 CCENT Semester 2	605		X	X	X	.5*
Cisco Discovery 2 CCNA Semester 1	610			X	X	.5*
Cisco Discovery 2 CCNA Semester 2	615			X	X	.5*
Cisco Network Security IINS	620				X	.5
Database Design Programming With SQL (Oracle Academy 2) Honors	630		X	X	X	1
Computer Graphics Technology I	631	X	X	X	X	1

Computer Graphics Technology II	632		X	X	X	1
Computer Graphics Technology III	633			X	X	1
Fundamentals of Sustainable Engineering and Technology	607	X				1
Engineering Course (ele)	613		X	X	X	1
Fundamentals of Wind and Water	611			X		1
Senior Design Capstone Project	612				X	1
CTE Solar/Environmental Resource Management and Design	609		X			1
Database Design and Programming (SQL)	625	X	X	X	X	1*
Database Programming with PL/SQL	630		X	X	X	1*
Technology Apprenticeship	616		X	X	X	1
Wood Technology I	681	X	X	X	X	1
Wood Technology II	682		X	X	X	1
Wood Technology III	683			X	X	1