



BEDFORD HIGH SCHOOL PROGRAM OF STUDIES 2022-23

BEDFORD HIGH SCHOOL

Mission Statement

The mission of Bedford High School is to educate all students in a nurturing, democratic, challenging, and inclusive environment. Bedford High School, in partnership with parents and the community, helps students attain the knowledge and develop the skills and intellectual curiosity to become independent and self-sufficient adults who will contribute responsibly in a global community. By providing opportunities for students to create meaning and to develop understanding in a variety of contexts, Bedford High School prepares students to grow and to act in a well-informed, creative, ethical, and compassionate manner.



Translation Support: If you require assistance or translation services for the Program of Studies, please contact [Carrie Powers](#), Program Administrator of ESL at (781) 275-7706 ext. 4862

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HOW TO USE THE PROGRAM OF STUDIES

High school is your last chance to take advantage of a free, public education. Make the most of your years here! Take as many challenging courses as possible and explore new areas of interest. As you select your courses for next year:

1. Review the Table of Contents of the Program of Studies so that you know what kinds of information it contains.
2. Select courses to fill every block, typically five 5-credit courses and four 2.5-credit courses, while remaining aware of our graduation requirements.
3. Talk with your school counselor about your plans for your schedule and ask your school counselor any questions you may have.

Think of the Bedford High School graduation requirements as a starting point. Note, for example, that the minimum admissions requirements for Massachusetts state colleges and universities include **two** years in a single world language. If you are able, however, to take more years of a world language, we urge you to do so.

ACADEMIC, SOCIAL AND CIVIC EXPECTATIONS

Active Learners – *engaged in the quest for knowledge and understanding*

Students will . . .

- understand and use what they learn
- read actively and purposefully
- engage in inquiry and self-directed learning
- use feedback and reflection to extend learning

Resourceful Thinkers – *engaged in solving problems and making meaning*

Students will . . .

- employ creative thinking skills
- employ critical thinking skills
- evaluate frames of reference
- make meaningful connections
- conduct analytical research

Effective Communicators – *engaged in sharing information, insights, and ideas*

Students will . . .

- present in oral and written form with clarity, purpose, and understanding
- express knowledge and skill creatively using a variety of media, technology and the arts
- engage effectively in discussion

Social and Civic Expectations

Students will...

- act with integrity, respect, and responsibility towards themselves, others, and the environment
- value cultural diversity and recognize global interdependence
- practice the democratic principles of tolerance, activism, responsibility for and service to one's community
- think independently and work cooperatively to achieve goals and resolve issues

Graduation Requirements

To earn a Bedford High School diploma students must earn 124 total credits, fulfill minimum course distribution requirements (detailed below) **and** pass the Massachusetts Comprehensive Assessment System (MCAS) exams.

Course Distribution Requirements

Department	Years Required	Credit Equivalent	Comments
English	4 Years	20 Credits	
Mathematics	4 Years	20 Credits	Algebra I, Geometry and Algebra II (recommended)
* Science	3 Years	15 Credits	Physics, Chemistry and Biology (recommended)
* Social Studies	3 Years	15 Credits	US History I, Modern World History, and US History II required.
* World Language	2 Years	10 Credits	Two years of the same language required.
Art		2.5 Credits	Creativity and Culture may be taken to fulfill Art Requirement
Performing Arts		2.5 Credits	Creativity & Culture may be taken to fulfill Performing Arts Requirement
Occ. Ed.		2.5 Credits	Computer science courses & Business Math meet Occ. Ed. Graduation requirement
Wellness	4 Years	10.0 Credits	Must have Fitness and Health (9 & 10)
A total number of 124 credits needed for graduation			

** Many private and public four-year colleges and universities may require more credits in particular content areas beyond our graduation requirements*

CREDIT

Students are responsible for knowing the number of credits they have earned. Below is a guideline for the number of credits necessary to promote to the next grade:

✓ Grade 9	31 Credits
✓ Grade 10	62 Credits
✓ Grade 11	93 Credits
✓ Grade 12	124 Credits

Credit allocations are listed in the course title description. Credit is allocated based on how many times a class meets in a block cycle.

GRADE SCALE (WITH LETTER GRADES)

Score	Grade	Un-weighted, CP/Intro CP	Honors	High Honors/AP
93-100	A	4.0	4.5	5.0
90-92	A-	3.7	4.2	4.7
87-89	B+	3.3	3.8	4.3
83-86	B	3.0	3.5	4.0
80-82	B-	2.7	3.2	3.7
77-79	C+	2.3	2.8	3.3
73-76	C	2.0	2.5	3.0
70-72	C-	1.7	2.2	2.7
67-69	D+	1.3	1.8	2.3
63-66	D	1.0	1.5	2.0
60-62	D-	0.7	1.2	1.7
0-59	F	0	0	0

GRADE POINT AVERAGES

Weighted and unweighted GPA are reported on the student’s college transcript with final grades. (Senior year grades are reported by quarter). The different levels for minors are indicated on the report card and transcript as descriptors of the varying levels of difficulty and student work.

Notes Regarding GPA:

- Unweighted is a 4.0 scale; weighted is a 5.0 scale
- All academic majors and all elective courses are used to calculate unweighted GPA scale (except pass/fail).
- Only courses considered as majors (5 credit courses) are used to calculate weighted GPA. Heterogeneous courses and courses taken for Pass/Fail are not used to calculate weighted GPA.

*For the classes of 2022 and 2023, the GPA will include term 1 and term 2 of the student’s senior year in the GPA calculation. The GPA will be calculated after both term 1 and, again, after term 2. This practice will be revisited in three years to determine whether or not it will continue.

Class Rank: Bedford High School does not report class rank.

PASS-FAIL (P-F)

Grade P: This grade is used in exceptional circumstances where standard grading practices do not apply. The decision to grade a student "pass/fail" in a course is a collaborative Program Administrator, Director of Counseling, and Assistant Principal decision, in consultation with the teacher and counselor. The grade of a “P” does not impact the GPA. Credit is recorded.

COURSE LEVELS

Fundamental (F): Fundamental classes are substantially modified from regular course content and assessments. These courses are most often offered concurrently with Introductory College Prep and/or College Prep classes (i.e., in the same classroom, at the same time) as appropriate based on the needs of the student, and as such, students are fully incorporated into the classroom structure with individualized modifications as deemed appropriate. Enrollment in these courses requires permission from an administrator or as dictated by an individualized plan.

Introductory College Prep (ICP): Introductory college prep classes are more highly individualized than college preparatory classes and include more explicit skills instruction in addition to content instruction. Content is modified for a slower pace and reduced overall workload with focus being on essential concepts. Most often Introductory classes are offered concurrently with College Prep (i.e., in the same classroom, at the same time) as appropriate based on the needs of the student(s), and as such, students are fully incorporated into the classroom structure. Enrollment in these courses requires permission of an administrator or as dictated by an individualized plan.

College Preparatory (CP): These are college preparatory courses in which students will work with increasing independence on inquiry, problem solving, critical thinking, and reading and writing within each content area. The courses are often smaller, feature more structured instruction, and in some cases offer co-teaching to allow for more individualized attention.

Honors (H): These are more rigorous college preparatory courses in which materials taught are at an accelerated pace. Students are expected to work more independently on inquiry, problem solving, critical thinking, and reading and writing within each content area. These courses provide a strong foundation for future studies in each field.

High Honors (HH): These courses are conducted at a standard which is comparable to college work, depending on the year of study. Courses are rigorous and materials taught are at an accelerated pace with greater depth. Students work independently on inquiry, problem solving, critical thinking, and reading and writing within each content area. Teacher recommendations and/or departmental approval may be required prior to enrollment.

Advanced Placement (AP) - These courses are conducted at a standard which is comparable to college work, depending on the year of study. Courses are rigorous and materials taught are at an accelerated pace and greater depth. Students work independently on inquiry, problem solving, critical thinking, and reading and writing within each content area. Courses that specifically follow the nationally recognized AP curriculum are so designated in their titles and approved by the College Board. Teacher recommendations and/or departmental approval may be required prior to enrollment.

UNLEVELED COURSES

Heterogeneous: These courses allow students to pursue subjects of interest without experiencing the added pressure of an articulated level. Most of the senior English courses are unlevleled.

Major: These courses are 5 credits and meet 4 times in a 6-day cycle.

Minor: These courses are 2.5 credits and meet 2 times in a 6-day cycle.

COUNSELING PROGRAM AND SERVICES

The mission of the Pre-K-12 Counseling Department is to promote developmentally-appropriate social, emotional, academic, and career growth for all students. We help students build upon their strengths to develop self-efficacy and resilience, make healthy decisions, and acquire a sense of personal and civic responsibility. Through collaboration within our diverse community, we support access and equity for all learners.

Lester Eggleston, Jr.	Director of Counseling Pre-K-12	(781) 275-1700 ext. 4410
Charles Alperin	School Adjustment Counselor	ext. 4499
Alan Chang	School Counselor	ext. 4412
Brian DeChellis	School Counselor	ext. 4414
Janel Halupowski	School Counselor	ext. 4413
Anna Septembre	School Counselor	ext. 4411
Samantha Thyne	School Counselor	ext. 4432
Meredith Tobe	Administrative Assistant	ext. 4410

Course Recommendation/Request Process and Academic Advising

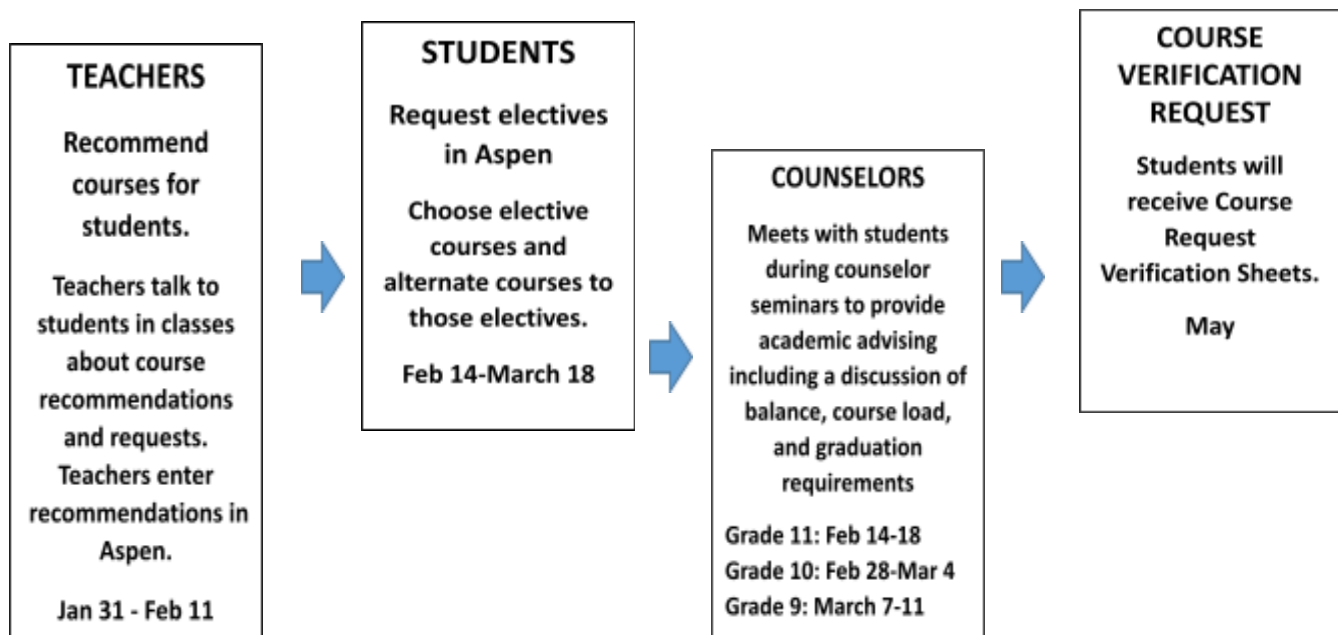
Appropriate level placements are made in the spring for the following year by the current teacher(s) based on the student's performance and demonstrated abilities. These recommendations and assessments are intended to place students in courses where the pace, expectations and standards are appropriate to their needs and abilities. Teachers' recommendations are made holistically. BHS aims to reduce student stress and empower students to make healthy academic choices. The course recommendation/request process and academic advising provides students the opportunity to consider overall academic rigor. Students are encouraged to take a challenging program, but also to be realistic while keeping in mind their commitments in and out of school. As students formulate their course requests, attention to the Program of Studies is essential as it contains information regarding prerequisites, course recommendations, and course expectations.

As a part of the BHS comprehensive school counseling curriculum, each 9th, 10th, and 11th grade student will have the opportunity to meet with their school counselor for an Academic Advising appointment.

The Goals of Academic Advising include:

- Reviewing graduation requirements
- Discussing student's course recommendations/requests
- Considering course recommendations/requests and their connection to future planning
- Reflecting on the student's academic placements in relation to balance and wellness.

Overview of Course Recommendation, Course Request, and Academic Advising Process



Student Responsibilities

- Log on to the Aspen student portal** with your own student account.
- Review the Program of Studies** available on the BHS website.
- Discuss your course recommendations** for next year with your teachers.
- Talk with your teachers and parents/guardians** about your course recommendations and course requests for next year.
- Request elective courses online through Aspen including alternates for each elective.** Teacher recommendations will also be viewable in the Aspen student portal when you enter your elective requests.
- Meet with your school counselor for Academic Advising**
- Verify all of your course recommendations and course requests.**

COURSE REQUEST PROCESS

The course request process is designed to provide all Bedford High School students with a program of studies that will interest them and challenge them to the best of their abilities. The course request process is as follows:

- In February, the new Program of Studies is published electronically on the BHS web page. Teachers talk with their students individually about the teacher's recommendation for next year.
- In March, School Counselors meet with students in small groups to inform students about available courses and to guide students in the course request process. Students enter their

choices in Aspen and then have time at home to review their course choices with their caregivers for their approval.

- In May, students receive the list of the courses they were recommended for and requested.
- Final schedules for the coming school year are posted in Aspen during the summer.

LEVEL CHANGE REQUEST PROCESS

Teachers make course placement recommendations based upon their knowledge of the student's achievement, academic strength, and motivation. When aspirations of students and caregivers conflict with the professional recommendations of the teachers, there is a process for appealing the teacher's recommendation. Caregivers are encouraged to first have a conversation with the recommending teacher first before initiating this process.

The steps for students and/or parents/guardians to request a level change are as follows:

1. Obtain a "Level Change Request Form" from either the middle or high school counseling office or print from the [BHS Counseling web page](#). The form asks for both student and parent/guardian to state reasons for requesting the change.
2. Complete and submit the form to the BHS office for the appropriate Program Administrator by April 1st.
3. The appropriate Program Administrator will review the request and will contact the parent/guardian by phone or email regarding the decision. Requests submitted after April 1st will be considered on a space available basis in addition to the standard review process.

ARENA DAY

To help facilitate the schedule change process for students at Bedford High School, the BHS Counseling Department hosts Arena Day at the end of August prior to the start of school. This process enables students to begin school with a complete schedule they are comfortable with to fulfill graduation requirements.

COURSE CHANGE PROCEDURE AND DEADLINE

Bedford High School is proud to offer a diverse array of course offerings from which students can choose. In order to ensure that the school's master schedule is built in a way to accommodate the preferences of as many students as possible, it is imperative that students take time and care in making their initial course requests. It is in the best interest of all students that each student's schedule be finalized as early in the school year as possible.

Student-initiated requests to add or drop classes may be done so with their School Counselor until the 18th school day. These requests for schedule changes will be considered based on the individual student's needs and the space available in the schedule. If a student withdraws from a course prior to the deadline, the course does not appear on the student's transcript.

Requests for schedule changes after the deadline due to extenuating circumstances will be considered on a case-by-case basis by the teacher, Program Administrator, and Director of Counseling. If a student withdraws from a course and/or changes a level after the above deadline, a W (Withdrawal) will appear on the student's transcript.

ADVANCED PLACEMENT

Beginning fall 2019, the Advanced Placement Program will require students to register and pay for AP Exams by early November.

DUAL ENROLLMENT

Dual enrollment is a partnership between Middlesex Community College and Bedford High School, providing students the opportunity to take college level courses while also completing their requirements for high school graduation. These college courses are not extra classes taken before or after school. They are part of the daily class schedule and are taught at the college level by Bedford High School teachers who meet or exceed the hiring qualifications to teach at the college level. Currently, high school students with junior or senior status are eligible to participate in the Dual Enrollment Program. The tuition is \$92 a credit, \$276 per course (2022-2023), which is paid directly to the college at the beginning of the course. Scholarships may be available for students with financial need.

The benefit of taking college credits earned through the Dual Enrollment program is a high school junior or senior is able to gain experience in college-level work while receiving college credit at a fraction of the cost of college tuition. Additionally, these college credits may be transferred to many other two-year and four-year colleges across the country. The colleges within the Community College System of MA (CCSMA) are accredited by the New England Association of Schools & Colleges, Commission on Institutions of Higher Education. Although transferability policies vary from college to college, credit transfer is dependent on many variables including your grade in the course, academic major and your willingness to produce proper documentation such as the course syllabus or a course portfolio. Course offerings may vary from year to year and not all sections of classes will be designated as a Dual Enrollment course. Please talk to your high school counselor to learn what courses are offered.

Requirements to take Dual Enrollment Classes:

- Grade Point Average of 2.0, and
- PSAT or SAT English score of 480, and
- Meet multiple measures criteria, and
- 10th grade reading level and able to complete a 5 paragraph essay

Students must also:

- Complete and submit Dual Enrollment application
- Complete Middlesex Community College registration form
- Request a transcript from Middlesex Community College upon completion of the Dual Enrollment course

WORK EXPERIENCE PROGRAM

Course #6013

Prerequisite: Grade 12 only; by application and with Work Experience Coordinator approval

Students who desire to develop their personal, social, and job skills through work, and are working at least 10 hours per week during the school year, are eligible for participation in this program. Academic credit is awarded on the basis of quarterly supervisory evaluations. Interested students should see their counselor for details.

The following seminars are not available for request. Counselors will schedule this time with students during English and/or Social Studies class time. Social and emotional learning (SEL) enhances students' capacity to integrate skills, attitudes, and behaviors to deal effectively and ethically with daily tasks and challenges. BHS counseling seminars aim to build students' SEL competencies, not limited to but including: self awareness, social awareness, relationship skills, self-management, and responsible decision making.

FRESHMEN COUNSELING SEMINAR

This first year program focuses on the orientation of freshmen to Bedford High School. Students meet during the first semester to become familiar with their new school, get to know each other, and build a relationship with their counselor. Counselors review supports and resources, getting involved at BHS, goal-setting, and decision-making. Students learn about study skills, time management and other topics of importance to ninth graders.

SOPHOMORE COUNSELING SEMINAR

This second semester program focuses on self-discovery, decision-making skills, reflection and goal setting. Students complete an aptitude and natural skills assessment to explore personality types, research career clusters and review college majors that pertain to the careers revealed from the assessment. Students are encouraged to assess their strengths and weaknesses by developing personal and academic goals. Counselors work with sophomores to formulate a plan to reach these goals.

JUNIOR COUNSELOR SEMINAR

This second semester program focuses on early post graduation planning with particular emphasis on the college search process. Through a systematic approach, students come to understand the post-secondary search process (college, gap year, technical/certificate programs, employment, apprenticeships, military, etc.), factors in admissions decisions (what colleges are looking for), developing a college list (reflection and what students are looking for), request teacher recommendations and create a balanced college list. Techniques for investigation, tours, interviews and narrowing down one's list of post-secondary options are discussed so that students are prepared to make the best use of the summer for continuing their research. Students meet with their counselors in February at the beginning of the process and again in April mid-way through the planning process.

SENIOR COUNSELOR SEMINAR

In the first term of the year, students planning to attend college after high school review and revise their previous choices and finalize their plans. Counselors walk students through the post-secondary planning process (including the college application process) from start to finish. The program provides students with the information and skills necessary to make appropriate decisions based on their unique goals, expectations, and needs. Students who wish to pursue other options upon graduation will work with their counselor, either in groups or individually, to develop their post high school plans.

Admission Requirements For Massachusetts State Universities

Admission to the University of Massachusetts and the Massachusetts state university system is determined in accordance with minimum standards established by the Massachusetts Department of Higher Education (DHE). However, meeting the DHE's standards does not guarantee admission, since the universities consider a wide range of factors when making admission decisions. The rigor of the

curriculum is strongly considered. When assessing academic achievement, course grades as well as grade trends are important, including course selection and grades in relation to the desired major. A strong senior schedule helps show the applicant's commitment to higher education.

Minimum Course Requirements: Students must have completed the MassCore program of study in high school, consisting of

- 4 course units of English
- 4 course units of Mathematics (including Algebra 1, Algebra 2, Geometry and Trigonometry or comparable coursework including math in the senior year of high school)
- 3 courses (from Natural Science and/or Physical Science and/or Technology/ Engineering), including 3 courses with laboratory work*
- 3 course units of History, including 1 in U.S. History
- 2 course units of the same world language (American Sign Language is a world language)
- 1 course unit in the Arts
- 5 additional "core" course units including Career and Technical education or any of the above

Minimum GPA Requirement: A minimum grade point average (GPA) in college preparatory coursework at the time of application is required for Freshman Applicants. The University of Massachusetts and other Massachusetts state universities require a 3.0 GPA for admission. For students whose GPA falls below the minimum, a provisional sliding scale will apply.

Students and families should reference individual universities for more detailed admissions requirements.

Admission Requirements For Massachusetts Community Colleges

The Massachusetts Community Colleges are committed to an open admission policy. Residents who have earned a high school diploma, GED, associate degree or higher have the opportunity to enroll in a degree or certificate program. Please note that admission to some programs is competitive or may require the completion of prerequisite courses, and some programs have additional requirements including specific deadlines. For more information, contact the college's admissions office.

(Sources: Massachusetts Department of Elementary and Secondary Education, Massachusetts Department of Higher Education)

ACADEMIC ACHIEVEMENT CENTER

Ms. Kristen Tracy, Director of Student Achievement

Phone: (781) 275-1700 ext. 4448

The Academic Achievement Center (AAC) offers a range of support services for regular education students. The support services provided are targeted to the students' individual needs, focusing on developing foundational skills and the learning and study strategies required for students to become efficient, effective, and independent learners. All students in the Academic Achievement Center will have their progress monitored and adjustments to their services will be made based on student's progress.

Course Title	Course Number	Grade Level	Semester	# of Periods	Credits
AAC	8801 (2.5) 8811 (5)	9-12	All	2/4	2.5/5
AAC Scholar	8841	9-12	All	2	2.5
Independent Directed Study	9991	9-12	All	2	2.5

AAC

Course #8801/#8811

Prerequisite: Director of Student Achievement approval

AAC provides students with extra help on class work, support with organization and study skill development, reinforcement of course content, and additional MCAS support. Peer scholars work in the AAC to help students with material. Periodic consultations with classroom teachers and counselors comprise an important part of the program.

AAC SCHOLAR

Course #8841

Prerequisite: Faculty or peer recommendation and Director of Student Achievement approval

This program provides an opportunity for students to take a peer leadership role in the Academic Achievement Center at the High School. High achieving students with strong student skills are invited to participate based on recommendations. AAC Scholars are expected to actively impact the atmosphere of the AAC classroom through positive role-modeling, speaking and lifting up, and active leadership. Scholars work with AAC Teachers to identify, enact, and reflect upon their leadership.

INDEPENDENT DIRECTED STUDY

Course #9991

Prerequisite: Faculty recommendation and Director of Student Achievement approval

Students who work independently on their organization and homework can use directed study as time in their day to complete these tasks. Student progress will be monitored to ensure students' success. If students are not successful and able to work independently adjustments to their schedule will be made, to a more intensive academic intervention.

AIR FORCE JUNIOR ROTC PROGRAM

JROTC Instructors

Lt Col Kenneth Mierz, USAF (Ret) and MSgt Charlie Humphrey (Ret), USAF

Phone: (781) 275-1700 ext. 4495/4476

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Aerospace Leadership	College Prep	8903	12	All	4	5
Aerospace Science A	College Prep	8913	9-12	All	4	5
Aerospace Science B	College Prep	8923	9-12	All	4	5
Aerospace Science C	College Prep	8933	9-12	All	4	5
Aerospace Science D	College Prep	8943	9-12	All	4	5
Aerospace Science A w/ HR	College Prep	8953	9-12	All	4	5
Aerospace Science B w/ HR	College Prep	8963	9-12	All	4	5
Aerospace Science C w/ HR	College Prep	8973	9-12	All	4	5
Aerospace Science D w/ HR	College Prep	8983	9-12	All	4	5
Aerospace Leadership w/ HR	College Prep	8993	12	All	4	5

Students may fulfill 2.5 Physical Education Credits upon successful completion of an Aerospace Science course.

Aerospace Science, or Air Force Junior ROTC (AFJROTC), is a four-year program, **which may be taken in place of Physical Education**. However, there is still the requirement for students to enroll in the Health curriculum in accordance with current school guidelines. The AFJROTC program’s mission is improved citizenship and to provide community service. Additionally, these courses give the student knowledge of aviation, space, military customs and courtesies, training in leadership, and applied management. The AFJROTC Wellness Program, in which all students participate each year, stresses the importance of maintaining one’s health through exercise, nutrition, and healthy choices. In addition to normal classroom activities, numerous extracurricular activities include community service, field trips, rocket and model airplane building and flying, Drill Team, and Color Guard. The course is open to all students. Uniforms and books are supplied to each student without charge. Cadets who are eligible can apply for an Air Force Senior ROTC College Scholarship. Those cadets who enlist in the Armed Forces after graduation may be eligible to enter the military at a pay-grade higher than other enlistees. **No military obligation is incurred by students enrolled in these courses. There are no prerequisites for enrollment and students may join the program during any year. Aerospace A-D courses are offered on a four-year rotating basis.**

AEROSPACE SCIENCE A

College Prep

Course #8913

Prerequisite: None

Aerospace Science A covers the History, Principles, and Purpose of Flight. Students will develop an understanding of aviation evolution, the basic physics and principles of flight, and the purpose and use of the various types of aircraft employed by the military and civil aviation. The students will also become familiar with basic theories of meteorology and the technology of rocketry and spaceflight. Leadership training emphasizes Life Skills: preparing budgets, performing basic banking transactions, understanding credit, and helping students identify their near term career goals as well as lifelong professional development.

AEROSPACE SCIENCE B **College Prep** **Course #8923**

Prerequisite: None

Aerospace Science B will be spent researching and discussing Global and Cultural Studies. The course delves into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights. Leadership units cover Good Followership, Personal Development Skills, and Health Awareness. Skills will be honed through commanding flights via drill, teaching basic facing movements, and the development of orderliness and precision.

AEROSPACE SCIENCE C **College Prep** **Course #8933**

Prerequisite: None

Aerospace Science C covers in-depth the Space Environment, Space Programs, and Manned Space flight. Leadership training covers Effective Communication, Understanding Individual and Group Behavior, and Leadership Skills. Students will exercise these skills by leading basic daily flight operations, such as teaching younger students how to lead flights in squadron drill. Leadership C cadets will also study Geography or Survival.

AEROSPACE SCIENCE D **College Prep** **Course #8943**

Prerequisite: None

Aerospace Science D covers the Future of Space and focuses upon topics involving missions to Mars, Venus, and beyond, propulsion of space vehicles, maneuvering in space, robots in space, and private industry in space. Leadership courses cover Introduction to Management, Managing Things and Ideas, Citizenship, and Ethics.

AEROSPACE SCIENCE L **College Prep** **Course #8903**

Prerequisite: Recommendation of Senior Aerospace Science Instructor

Aerospace Science L is designed for the cadets that have senior leadership positions with the Corp of Cadets. These students will run most of the day-to-day operations of the AFJROTC group. Examples include teaching younger cadets: how to drill, how to wear the USAF JROTC uniform correctly, and be examples to the younger students. This class is reserved for senior cadets in leadership positions and replaces the aerospace (AS) portion of the Aerospace A through D classes. These students will continue to join the AFJROTC group in the current year's leadership, drill, and wellness classes.

ART

**Mr. Sean Hagan, Program Director
(781) 275-1700 ext. 4498**

Art Graduation Requirement: 2.5 Credits

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Art I (Minor)	College Prep	7112	9-12	All	2	2.5
Art I (Major)	College Prep	7123	9-12	All	4	5
Art II (Minor)	College Prep	7212	10-12	All	2	2.5
Art II (Major)	College Prep	7223	10-12	All	4	5
Art III (Minor)	College Prep	7313	11-12	All	2	2.5
Art III (Major)	College Prep	7324	11-12	All	4	5
Art IV (Minor)	College Prep	7424	12	All	2	2.5

Art IV (Major)	Honors	7425	12	All	4	5
Photography I (Minor)	College Prep	7043	9-12	All	2	2.5
Photography II (Minor)	College Prep	7053	10-12	All	2	2.5
Photography II (Major)	College Prep	7054	10-12	All	4	5
Photography III (Minor)	College Prep	7063	12	All	2	2.5
Photography III (Major)	College Prep	7064	12	All	4	5
Art Explorations (Minor)	College Prep	7413	12	All	2	2.5
Art Explorations (Major)	Honors	7414	12	All	4	5
Digital Art I (Minor)	College Prep	7072	9-12	All	2	2.5
Digital Art II (Minor)	College Prep	7093	10-12	All	2	2.5
Digital Art II (Major)	College Prep	7094	10-12	All	4	5
Digital Art III (Minor)	College Prep	7463	11-12	All	2	2.5
Digital Art III (Major)	College Prep	7473	11-12	All	4	5
Ceramics I (Minor)	College Prep	7012	9-12	All	2	2.5
Ceramics II (Minor)	College Prep	7023	10-12	All	2	2.5
Ceramics II (Major)	College Prep	7024	10-12	All	4	5
Ceramics III (Minor)	College Prep	7033	11-12	All	2	2.5
Ceramics III (Major)	College Prep	7034	11-12	All	2	2.5
Ceramics IV (Minor)	College Prep	7083	12	All	2	2.5
Ceramics IV (Major)	Honors	7084	12	All	4	5
Art, Ceramics, Photo Intern	College Prep	7011	10-12	All	2	2.5
Digital Photography	College Prep	7483	9-12	All	2	2.5
Digital Photography II	College Prep	7493	10-12	All	2	2.5

ART I (Minor) College Prep Course #7112
(Major) Course #7123

These introductory courses in visual problem-solving are recommended for freshmen and/or students who wish to follow a sequential development of art courses, as well as participate in department electives. These courses are organized around a variety of concepts and media selected to help students express ideas and feelings through the use of design elements (line, shape, texture, color, space, mass, and form), and design principles (contrast, balance, variation, unity, movement, and harmony). Students will be exposed to a variety of media techniques in the areas of drawing, painting, sculpture, printmaking and mixed media. The emphasis of these courses is on skill building and problem solving, while also developing an appreciation for art history and group critique.

ART II (Minor) College Prep Course #7212
(Major) Course #7223

Prerequisite: Art I Major or Minor

These courses are intended to build on the visual skills and knowledge students gained in Art I. Students will utilize their understanding of design elements and principles, art mediums, and techniques in the exploration of art production as a creative process. These experiences will be centered on more advanced uses of art tools and techniques, complex compositional planning, open-ended responses to visual problems, and experimental approaches to two and three-dimensional design forms. Critical thinking skills will be discussed as an integral component of the creative process, and greater emphasis will be placed on individual and group critique as an evaluation tool.

ART III (Minor) College Prep Course #7313
(Major) Course #7324

Prerequisite: Two years of art, or approval of the Program Director.

These courses require students to take an active role in determining creative outcomes to visual concepts. Through assignments stressing drawing and design, students will reflect on personal experiences and ideas as primary sources in the creation of original art forms. Students will be expected to demonstrate an understanding of two and three dimensional drawing concepts in the expression of forms in space, and apply their cumulative knowledge of design elements and principles to content based on observational drawing, imaginative thematic interpretations, sensory experience, metaphor and symbol, and multiple visual imagery. These courses will also provide students with the opportunity to begin the development of a portfolio of art work suitable for art school admissions.

ART IV (Minor) College Prep Course #7424
(Major) Honors Course #7425

Prerequisite: Three years of art, or approval of the program director.

These courses promote extensive independent work based on individual abilities, ideas, and interests for the completion of the Senior Portfolio and the production of an original Art Book. Students should be able to demonstrate the ability to apply critical thinking skills in developing clear intellectual and emotional ideas regarding the form and content of their artworks for the expression of personal points of view. The portfolio and book projects are culminating activities designed for students to demonstrate the highest level of performance and creative effort in the coordination of drawing, composition, technique, and aesthetic decision-making. The expectation from these efforts is that each student will have a tangible body of meaningful work, which represents their creative potential for pursuing an art career or developing lifelong interests in the visual arts. Art IV students will also be expected to create an installation for the K-12 Art Show.

PHOTOGRAPHY I (Minor) College Prep Course #7043

Prerequisite: None

This course is designed to help you to become a more thoughtful, creative, and visually aware photographer, no matter what kind of camera you use at any given moment. The photographic processes of 35mm camera operation, black and white film development and printing, and compositional design are applied to creative projects in areas including: the development of semi-abstract images, descriptive and interpretive visual essays, environmental studies, and portraiture. Creative expression and exploration of personal interests through the medium of photography is stressed, but success in this course also requires the ability to develop disciplined work habits to master technical material. Students will engage in a variety of visual problem solving.

PHOTOGRAPHY II (Minor) College Prep Course #7053
(Major) Course #7054

Prerequisite: Photography I

This advanced course challenges students to build upon the technical and expressive skills achieved in Photography I. Students will explore experimental and alternative approaches and materials, and will also expand their competence with traditional photographic processes. Topics and projects include, but are not limited to, high

functional and sculptural forms in clay. In addition, students should be willing to take creative risks in striving to develop personal ideas and interests in an original style. Individual expression is encouraged along with the appreciation for disciplined work habits in art.

CERAMICS II (Minor) College Prep Course #7023
(Major) Course #7024

Prerequisite: Ceramics I (Minor)

These advanced courses are for students who have successfully experienced basic ceramic techniques (such as pinch, coil, and slab construction, throwing on the potter's wheel, and glaze application), and wish to develop a greater sense of mastery in the medium. Students will have the opportunity to work in a larger format and size, experiment with glazes, and manipulate more complex forms on the potter's wheel. Students will be expected to work at a more intensive individual level while creating more imaginative forms in a more challenging environment.

CERAMICS III (Minor) College Prep Course #7033
(Major) Course #7034

Prerequisite: Ceramics II

These courses build on the independent working styles fostered in Ceramics II. There will be student-directed projects as well as teacher-directed projects, but students will above all else be encouraged to develop a personal expressive style through the medium of clay. Students should expect to work on a larger scale, in greater depth, and pay more attention to detail. Students will be expected to maximize opportunities to combine slab, pinch, coil, and wheel-throwing methods to produce traditional and non-traditional ceramic forms. A greater degree of risk-taking and personal challenge will be expected from Ceramics III students.

CERAMICS IV (Minor) College Prep Course #7083
(Major) Honors Course #7084

Prerequisite: Ceramics III

These courses are for students who are interested in continuing to express their creative ideas through the medium of clay. Ceramic IV students should be prepared to work on a theme or a series of ceramic works of their choosing. Students are expected to be adept at the construction mode they choose (pinch, slab, coil or wheel-throwing). The Ceramic's IV Majors will be required to keep a sketchbook of research and ideas, and to create an Installation for the K-12 Art Show.

ART, CERAMICS, PHOTO INTERN College Prep (Pass/Fail) Course #7011

Prerequisite: Art I, Ceramics I, or Photography I, or program director approval

The Art, Ceramics or Photography Intern will assist the classroom teacher by keeping supplies and equipment ready and updated for classes. Art Interns will be responsible for the ongoing organization, cleaning and inventory of art supplies. Ceramic Interns will be responsible for recycling clay, organizing glazes and cleaning tools. Photography Interns will be responsible for mixing chemicals, cleaning and organizing at enlarger stations, making dodging and burning tools, doing simple cameras tests, and testing darkroom techniques and/or materials.

DIGITAL PHOTOGRAPHY College Prep Course #7483

Prerequisite: None

In Digital Photography, you will use a variety of image capturing devices, ranging from iPads to DSLR cameras (digital single lens reflex cameras), for artistic purposes. Through hands-on work across a range of genres, such as portraiture, still life, and landscape, you will begin to develop your own unique visual style. At the same time, we will also explore important technical aspects of both digital cameras and digital "processing," or refinement, of images through Photoshop. You will gain a good working understanding of basic principles underlying all photography, including manual vs. auto camera controls, exposure and image quality, as well as using different kinds of lighting, using simple tools and methods. Finally, we will explore various methods of reviewing, editing, and presenting/sharing photographs in meaningful, thoughtful, and expressive ways.

DIGITAL PHOTOGRAPHY II

College Prep

Course #7493

Prerequisite: Digital Photography

In this advanced class, students will take more ownership of their learning by focusing in depth on a different photographic technique each quarter. Students will conference with their teacher to determine a plan for the year and develop potential ideas for each quarter. Students will be responsible for uploading all of their finished work to a student-created website (using Weebly or a comparable service) that will also include written student observations and reflections on each project.

**ART EXPLORATIONS(Minor)
(Major)**

**College Prep
Honors**

**Course #7413
Course #7414**

Prerequisite: Grade 12 only; three years of art, with mentor teacher and program director approval

At course selection time, interested students should submit their proposal to Mentoring Teacher and Art Program Director. The decision will be based on the strength of the proposal, the degree to which it's clear that the student's goals are reasonable and cannot be met within the normal curriculum (e.g., of Art IV or another advanced art class), and the student's term by term plan for independent work. Most Art Exploration students will be scheduled with the Art IV Minor and Major class.

In this course, students will look at and create art that informs, educates, persuades, and provides visual experiences to communicate messages that are vital to our daily lives. Students can expect to explore the following (or similar) themes: typography as image, creative wordplay, visual advocacy (through posters), signage, graffiti, logo design, product design and sculpture. Art Explorations is offered to students who are highly motivated and highly skilled with an active interest in exploring alternative curriculum content in visual art, such as a particular emphasis in one or two mediums. Students will be required to keep a journal/sketchbook, maintain a portfolio of research and experimentation, and produce at least one major art work each marking period, culminating in an installation at the K-12 Art Show. After consultations with a Mentoring Teacher and the Program Director, students will establish short and long-term goals. Students may enhance their experience by making interdisciplinary connections within the school, as well as participating in community-based job shadowing opportunities outside of school.

Computer Science

**Mr. Michael Griffin, Program Administrator
(781) 275-1700 ext. 4508**

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Computer Science Discoveries	Heterogeneous	2620	9-10	All	2	2.5
Computer Science Principles	Honors	26XX	9-10	All	2	2.5
AP Computer Science Principles	High Honors	2645	10-12	all	4	5
AP Computer Science A	High Honors	2655	10-12	All	4	5.0

COMPUTER SCIENCE DISCOVERIES

Heterogeneous

Course #2620

Prerequisites: None

CS Discoveries is a basic introductory course designed for 9-10th grade students new to computer science and is based on the Code.org program. Mapped to CSTA standards, the course takes a wide lens on computer science by covering topics such as problem solving, programming, physical computing, user-centered design, and data, while inspiring students as they build their own websites, apps, games, and physical computing devices. This course is designed for the student with minimal to no computing experience.

COMPUTER SCIENCE PRINCIPLES

Honors

Course #26XX

Prerequisites: None

CS Principles is an introductory course designed for 9-12th grade students who have some interest and/or experience with computer science and/or programming. The course develops a student’s understanding of digital representation, the Internet, app design, the various tools and methods used to build functioning computer programs, data handling, and cybersecurity in the modern world. The course does not focus on learning a particular programming language, but uses both console programming and app design to familiarize the student with a variety of programming skills.

AP COMPUTER SCIENCE PRINCIPLES

High Honors

Course #2645

Prerequisite: Computer Science Discoveries or one year of science

AP Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. It is important to note that the AP Computer Science Principles course does not have a designated programming language. Students will explore various languages within the programs.

AP COMPUTER SCIENCE A

High Honors

Course #2655

Prerequisite: Computer Science Principles, or equivalent, and teacher approval

AP Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with CS1 courses in colleges and universities.

ENGLISH

Mr. Daniel Hudder, Acting Program Administrator

(781) 275-1700 ext. 4557

English Graduation Requirement: 4 Years / 20 Credits

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
English I	Fundamentals	7802*	9	All	4	5
English I	Introductory CP	0102	9	All	4	5
English I	College Prep	0103	9	All	4	5
English I	Honors	0104	9	All	4	5
English I	High Honors	0105	9	All	4	5
English II	Introductory CP	0202	10	All	4	5

English II	College Prep	0203	10	All	4	5
English II	Honors	0204	10	All	4	5
English II	High Honors	0205	10	All	4	5
English III: American Perspectives	Introductory CP	0302	11	All	4	5
English III: American Perspectives	College Prep	0303	11	All	4	5
English III: American Perspectives	Honors	0304	11	All	4	5
AP Literature and Composition	Advanced Placement	0305	11	All	4	5
English IV: Composition and Literature	College Prep	0463	12	All	4	5
English IV: British Literature	Heterogeneous	0400	12	All	4	5
English IV: Creativity and Culture	Heterogeneous	0410	12	All	4	5
English IV: Global Voices	Heterogeneous	0420	12	All	4	5
English IV: African American Literature	Heterogeneous	0430	12	All	4	5
English IV: Asian American Literature	Heterogeneous	0440	12	All	4	5
Creative Writing	Heterogeneous	0540	9-12	All	2	2.5
Film Analysis	Heterogeneous	0530	11-12	All	2	2.5
Digital Storytelling & Journalism	Heterogeneous	0620	9-12	All	2	2.5
World Mythology	Heterogeneous	0590	9-12	All	2	2.5
Writing Essentials I	Heterogeneous	0630	9	All	2	2.5
Writing Essentials II	Heterogeneous	0660	10	All	2	2.5

**Team recommendation required.*

Required Text:

For information regarding required texts and additional literary selections for English classes, please consult the course syllabi on the [Bedford High School web page](#).

Students must take at least five credits in English during each academic year. Course failure of English I, II, or III must be made up in summer school or repeated the following academic year. Doubling English graduation requirement courses is permitted in Grade 12 ONLY.

Additionally, students will be given the opportunity to practice AP Literature and Composition multiple choice and essays in preparation for the exam in the spring.

ENGLISH III: AMERICAN PERSPECTIVES Honors Course #0304

Students selecting this course should have reading skills at or above grade level and be able to compose an effective three-part expository essay. Skills developed include reading inferentially, developing literary analysis through composition and discussion, producing a formal research paper, practicing test-taking skills for the PSAT and SAT exams, and relating course content to U.S. History II.

ENGLISH III: AMERICAN PERSPECTIVES College Prep Course #0303

This course is structured and paced to allow for additional student support in comprehension, analysis and synthesis. Students selecting this course should have reading skills at grade level and be able to write a three-part expository essay. Skills developed include reading inferentially, writing essays of literary interpretation, practicing test-taking skills needed for the PSAT and SAT, and relating course content to U.S. History II.

ENGLISH III: AMERICAN PERSPECTIVES Introductory College Prep Course #0302

Since this course is designed to remediate English skills, the student must demonstrate, either through standardized test scores or teacher recommendation, a need for placement at this level. Skills developed include reading for comprehension, recognizing patterns of development in reading, distinguishing fact from opinion, and building vocabulary skills. Enrollment in these courses requires permission from an administrator or as dictated by an individualized plan.

ENGLISH IV: SENIOR ENGLISH MAJOR COURSES

All six senior English courses incorporate literature from various perspectives and genres; students will explore what it means to be a human and how perspectives shape and alter truth. These courses help students develop independent, informed and creative thinking through student-led class discussions, expository, and creative writing opportunities, and rich independent reading. Grounded in close reading, each of the courses will help students examine multiple perspectives, leading to thoughtful judgments, conclusions, and evaluations. In the heterogeneous courses, all students will have access to academically challenging learning opportunities. Teachers will organize their classrooms in a way that supports and encourages all students to participate in intellectually rigorous activities. Various group work models, literature circles, and other thoughtfully designed classroom structures and scaffolds will ensure that all students have equal access to the material studied.

ENGLISH IV: COMPOSITION & LITERATURE College Prep Course #0463

This course is designed around an intensive review of reading comprehension of both nonfiction and fiction, analytical writing, and personal writing. The texts selected will focus on the connection between literature and the human condition, and students will work together to create a community of collaborative learning. The needs of the students help determine the focus of the class, and students will receive significant individualized attention around specific skill areas.

ENGLISH IV: BRITISH LITERATURE Heterogeneous Course #0400

British Literature is a literature based survey course that begins with Beowulf, the story of an Anglo-Saxon warrior-hero, and travels through time exploring historical contexts, philosophical perspectives, and archetypal or universal themes, such as the Hero, the Quest or Task, and the Fall. King Arthur, Hamlet, and Dr. Frankenstein all make an appearance. The curriculum will highlight the following topics: the power of storytelling; perseverance in the face of adversity; the impact of culture and history on narrative; the evolution of the hero; honor, revenge, and redemption; and the blending of myth and religion.

ENGLISH IV: GLOBAL VOICES Heterogeneous Course #0420

Global Voices focuses on increasing literacy in topics of worldwide import through reading and writing about award-winning literature from Asia, Africa, South America, and Europe. Readings are chosen from all genres: novel,

DIGITAL STORYTELLING AND JOURNALISM Heterogeneous Course #0620

Prerequisite: None

How do we tell stories in the digital age? In the era of the 24-hour news cycle, how can we effectively use digital media to entertain, persuade, and inspire our audiences? This course will introduce students to a wide variety of multimedia tools and applications used to tell stories (both fiction and nonfiction), and will engage them in examination and critique of examples pulled from contemporary media. Students will learn how to write and organize digital content; how to shoot and edit digital photos; how to gather and edit audio; how to use technology to create engaging documentaries, short films, PSAs, news stories, etc.; and how to share their work to a wide audience.

WORLD MYTHOLOGY, FOLKLORE, & LEGEND Heterogeneous Course #0590

Prerequisite: None

Students in this course will study mythology, folklore, and legends from a variety of world cultures and eras. Students will read, analyze, discuss, and write about mythology and its continued relevance to contemporary issues and texts, as well as investigate connections and similarities between cultures. Students should anticipate considerable reading in this course. Relevant films, vocabulary, and exhibits will be explored. Curiosity about and interest in comparative ancient belief systems are essential.

WRITING ESSENTIALS I Heterogeneous Course #0630

Prerequisite: Teacher recommendation, with appropriate screenings and assessment

This course provides freshmen with expository writing support in terms of organization and the writing process. Throughout the year when appropriate, students may bring writing assignments from other classes and/or receive instructional help from an English teacher. Since each class member will be working at his or her own writing level, this class is appropriate for students needing remedial work in specific, targeted areas. It is strongly recommended for students who seek additional help with the MCAS-Language Arts test required for high school graduation.

WRITING ESSENTIALS II Heterogeneous Course #0660

Prerequisite: Teacher recommendation, with appropriate screenings and assessment

This course provides sophomores, or students in Grades 11 and 12 who have not passed the Grade 10 ELA MCAS exam, with expository writing support in terms of organization and the writing process. Throughout the year when appropriate, students may bring writing assignments from other classes and/or receive instructional help from an English teacher. Since each class member will be working at his or her own writing level, this class is appropriate for students needing remedial work specific, targeted areas. It is strongly recommended for students who seek additional help with the MCAS-Language Arts test required for high school graduation.

ENGLISH AS A SECOND LANGUAGE

**Ms. Carrie Powers, Program Director
(781) 275-7706 ext. 4862**

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
English as a Second Language	College Prep	7552	9-12	All	2	2.5

ENGLISH AS A SECOND LANGUAGE College Prep Course #7552

ESL is a skills-based course that provides English Language Learners with explicit instruction in the skills they need to become proficient in reading, writing, listening, and speaking the English language. A variety of materials are used to sharpen these skills such as short stories, novels, interactive websites, writing prompts, class discussions,

and oral presentations. Students build their English vocabulary and understanding by being exposed to comprehensible English material that is appropriate to their English proficiency level.

LITERACY

**Ms. Elizabeth Wilson, Program Administrator
(781) 275-7706 ext. 4539**

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Targeted Reading	Heterogeneous	0930	9-12	All	2	2.5
Reading Skills	Heterogeneous	0950	9-12	All	2	2.5
Reading Strategies	Heterogeneous	0970	9-12	All	2	2.5

TARGETED READING **Heterogeneous** **Course #0930**
Prerequisite: Appropriate screenings and reading assessments with program administrator approval
The purpose of the Targeted Reading class is to provide more intensive programming for those students who need an instructional approach and class size that cannot be achieved in the other courses. This class provides individual or small group direct instruction using a systematic structured multi-sensory approach to phonics instruction or a specialized comprehension program that cannot be delivered elsewhere. Areas of instruction include decoding, spelling, and oral reading fluency.

READING SKILLS **Heterogeneous** **Course #0950**
Prerequisite: Appropriate screenings and reading assessments with program administrator approval
The purpose of the Reading Skills class is to provide direct, explicit, multi-sensory instruction in foundational literacy skills, including phonics and spelling, to those students who require a more intensive instructional approach. Instruction in word attack skills is provided in order to address gaps or weakness in reading skills. Students will work to increase their oral reading fluency by taking part in repeated readings or other oral reading opportunities with a focus on accuracy, phrasing, and expression. Because weakness in word attack and fluency impacts reading fluency and comprehension, comprehension instruction is also a focus in this class, touching on many of the same comprehension skills and strategies addressed in the Reading Strategies course. In addition to whole class direct instruction, students will receive individual feedback and support with applying skills and strategies during student-teacher conferencing.

READING STRATEGIES **Heterogeneous** **Course #0970**
Prerequisite: Appropriate screenings and reading assessments with program administrator approval
The purpose of the Reading Strategies class is to provide direct instruction in reading strategies to students reading below grade level, with a focus on reading comprehension and vocabulary. Being an active reader, understanding the structure of fiction and nonfiction text, summarizing, determining importance, identifying main ideas and themes, making inferences and connections, understanding the author's craft, and vocabulary development are the /main components of this intervention. In addition, this course will infuse fluency work and advanced instruction in word attack skills as needed. During the year, students will practice monitoring their comprehension and selecting "just right" texts, increase their reading stamina, and practice applying reading skills and strategies during independent reading. In addition to whole class instruction, students will receive individual feedback and support with applying skills and strategies during student-teacher conferencing.

MATHEMATICS

**Mr. Patrick Morrissey, Program Administrator
(781) 275-1700 ext. 4507**

Mathematics Graduation Requirement: 4 Years / 20 Credits

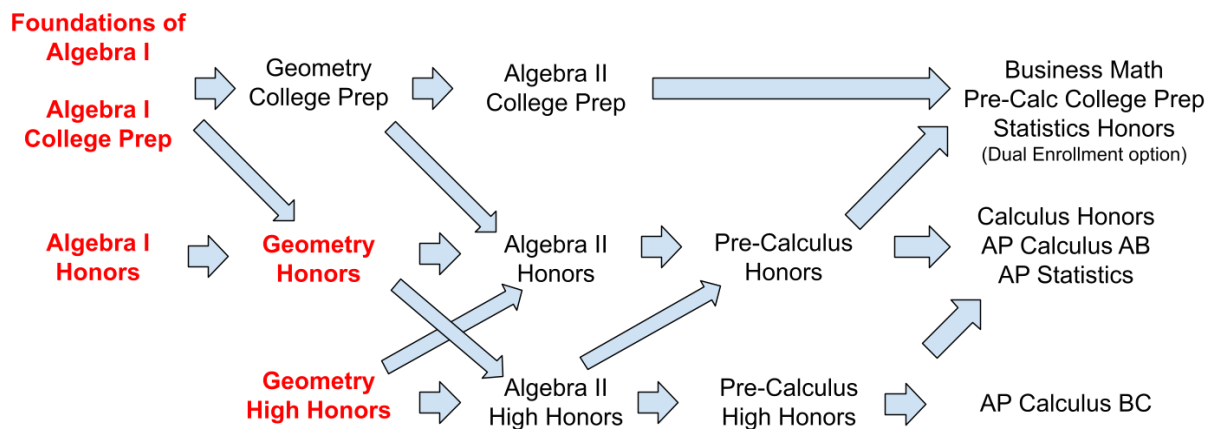
Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Foundations of Algebra I	College Prep	2103	9	All	6	7.5
Integrated Math I	College Prep	7723	9-12	All	4	5
Integrated Math II	College Prep	7724	9-12	All	4	5
Integrated Math III	College Prep	7725	9-12	All	4	5
Integrated Math IV	College Prep	7726	9-12	All	4	5
Algebra I	College Prep	2113	9	All	4	5
Algebra I	Honors	2114	9	All	4	5
Continuing Geometry / Algebra II (Ending 2023-2024)	Honors	2224	10	All	4	5
Continuing Algebra II (Ending 2024-2025)	Honors	2324	11	All	4	5
Geometry	College Prep	2203	10-11	All	4	5
Geometry	Honors	2204	9-10	All	4	5
Geometry	High Honors	2205	9	All	4	5
Math Essentials	Heterogeneous	2063	9-12	All	2	2.5
Algebra II	College Prep	2303	11-12	All	4	5
Algebra II	Honors	2304	10-11	All	4	5
Algebra II	High Honors	2305	10	All	4	5
Statistics and Probability	Honors	2414	12	All	4	5
AP Statistics	Advanced Placement	2575	11-12	All	4	5
Pre-Calculus	College Prep	2403	12	All	4	5
Pre-Calculus	Honors	2404	11-12	All	4	5
Pre-Calculus	High Honors	2405	11	All	4	5
Business Math	Heterogeneous	2310	12	All	4	5

Calculus	Honors	2504	12	All	4	5
AP Calculus AB	Advanced Placement	2505	12	All	4	5
AP Calculus BC	Advanced Placement	2515	12	All	4	5

9th Grade Courses:

If you have questions, please contact your child’s 8th grade teacher first, and then the Math Program Administrator. For JGMS students in Algebra I or Algebra IA teachers use course grades, past MCAS scores, Track my Progress nationally-normed assessments, and teacher recommendation to make recommendations for 9th grade math. For students in 8th Grade Math, teachers use course grades, past MCAS scores, Track my Progress, and teacher recommendation when recommending a 9th grade course

Bedford High School Math Progressions



Ninth graders will be recommended by their teachers for the most appropriate course and level, and this chart shows typical course progressions for the next four years. Choices in red signify courses taken by 9th graders. Any 9th grader beginning in Geometry has successfully completed a full-year Algebra I course in middle school.

Graphing Calculators are required for AP Calculus AB and BC and AP Statistics. The Math Program Administrator has some to lend to students who need and request one.

FOUNDATIONS OF ALGEBRA I

College Prep

Course #2103

Placement by 8th Grade Teacher Recommendation only.

This course is the first part of a two-year sequence focused on solidifying and extending 8th grade math standards, and focused on traditional Algebra I topics. In 10th grade students will take a similar course focused on Geometry and Statistics standards. The content of this course includes the study of real numbers, a major focus on linear equations and inequalities and their applications, arithmetic sequences, exponents properties, factoring techniques, systems of equations, absolute value equations, radical expressions and equations, relations and

functions, and quadratic equations. Students will be introduced to essential Geometry content in preparation for 10th grade.

ALGEBRA I **College Prep** **Course #2113**

Prerequisite: Teacher recommendation

The content of this course includes the study of integers, rational numbers, equations and inequalities, arithmetic sequences, exponents and polynomials, factoring, systems of equations, inequalities, and absolute values, rational expressions and equations, radical expressions and equations, and relations, functions and graphs. Students are introduced to problem solving strategies and applications of algebra to real-world problems.

ALGEBRA I **Honors** **Course #2114**

Prerequisite: Teacher recommendation

The content of this course includes the study of integers, rational numbers, equations and inequalities, arithmetic sequences, exponents and polynomials, factoring, systems of equations, inequalities and absolute values, rational expressions and equations, radical expressions and equations, relations and functions, and quadratic equations. Students are introduced to problem solving strategies and applications of algebra to real-world problems.

INTEGRATED MATH I **College Prep** **Course #7723**

Prerequisite: Teacher recommendation only

This course will solidify and extend 8th grade math standards in addition to learning inequalities, creating and solving and modelling linear and exponential functions, using function notation, and solving systems of equations. Geometry standards will include transformations and coordinate Geometry. Introductory statistics will include interpreting and summarizing one and two-variable data involving categorical or quantitative variables. Course content is focused on Massachusetts Curriculum Frameworks related to Algebra, Geometry and Statistics. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

INTEGRATED MATH II **College Prep** **Course #7724**

Prerequisite: Teacher recommendation only

Students will interpret linear functions, work with radicals and properties of exponents, and focus on quadratic functions. Geometry concepts will include volume, similarity, the pythagorean theorem and special right triangles, circles, and probability. Course content is focused on Massachusetts Curriculum Frameworks related to Algebra, Geometry and Statistics. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

INTEGRATED MATH III **College Prep** **Course #7725**

Prerequisite: Teacher recommendation only

Students will focus on modelling polynomial, exponential, logarithmic and trigonometric functions. Students will extend their understanding of probability and statistics to draw inferences and conclusions from sets of data. Course content is focused on Massachusetts Curriculum Frameworks related to Algebra, Geometry and Statistics. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

INTEGRATED MATH IV **College Prep** **Course #7726**

Prerequisite: Teacher recommendation only

Students will manipulate more advanced algebraic equations and expressions, solve equations and inequalities, and work with sequences and series. Students will develop an understanding of the unit circle and triangle trigonometry and solve trig equations and identities. Statistics and Probability will be explored more deeply. Course content is focused on Massachusetts Curriculum Frameworks related to Algebra, Geometry and Statistics. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

CONTINUING ALGEBRA I / GEOMETRY / ALGEBRA II SEQUENCE

This three-year sequence of courses covers the second half of Algebra I, a full course in Geometry, and an enriched Algebra II course including Pre-Calculus [including trigonometry]. Students beginning this sequence are expected to

quadratics, rational functions, radical functions, and logarithmic and exponential functions. Statistics and probability is reviewed from past courses. Algebra II is aligned to the Common Core State Standards

ALGEBRA II **Honors** **Course #2304**

Prerequisite: Teacher recommendation

Functions are the lens through which all work in Algebra II is done. The course begins with a review of linear functions and systems of equations and continues with in-depth work with polynomial functions, especially quadratics, rational functions, radical functions, and logarithmic and exponential functions. Statistics and probability is reviewed from past courses. Algebra II is aligned to the Common Core State Standards.

ALGEBRA II **High Honors** **Course #2305**

Prerequisite: Teacher recommendation

Functions are the lens through which all work in Algebra II is done. The course begins with a review of linear functions and systems of equations and continues with in-depth work with polynomial functions, especially quadratics, rational functions, radical functions, and logarithmic and exponential functions. Statistics and probability is reviewed from past courses. Conic sections and/or sequences and series are also covered if time allows. Algebra II is aligned to the Common Core State Standards.

MATH ESSENTIALS **Heterogeneous** **Course #2063**

Prerequisite: Teacher recommendation

This course provides students with math support, especially those with gaps in their prior math knowledge from middle school, and in need of remediation. This minor course is intended for 9th and 10th grade students in Algebra I, Geometry, and Algebra II, and is by teacher recommendation only. Students partially meeting expectations on 8th grade math MCAS or below state benchmarks on internal, school-wide assessments will be placed in Math Essentials in their 9th and/or 10th grade year. Progress monitoring will be ongoing and students may place out of Math Essentials by showing proficiency on internal assessments. Grades are on a pass/fail basis.

PRE-CALCULUS **College Prep** **Course #2403**

Prerequisite: Teacher recommendation

This course provides an introduction to Pre-Calculus topics. The course will cover quadratic functions, polynomial functions, exponents and logarithms, circles, trigonometric functions, trigonometric equations and applications, and triangle trigonometry. Students may also learn introductory topics in Statistics. Students in this course should have demonstrated mastery at the CP level in Geometry and Algebra 2. This course is for seniors.

PRE-CALCULUS **Honors** **Course #2404**

Prerequisite: Teacher recommendation

This course begins with a study of functions, exponentials and logarithms, and conic sections. The second part of the year is focused on trigonometry. Topics include linear and quadratic functions, polynomial functions, inequalities, exponents and logarithms, and analytic geometry, trigonometric functions, trigonometric equations and applications, triangle trigonometry, trigonometric addition formulas, and sequences and series. Success in Pre-Calculus Honors will allow students to take AP Calculus AB in addition to AP Stats or Statistics Honors.

PRE-CALCULUS **High Honors** **Course #2405**

Prerequisite: Teacher recommendation

This course begins with a brief review and enrichment of previously learned concepts involving functions, graphs, and applications, followed by a study of trigonometric concepts. Topics include linear and quadratic functions, polynomial functions, inequalities, exponents and logarithms, and analytic geometry, trigonometric functions, trigonometric equations and applications, triangle trigonometry, trigonometric addition formulas, polar coordinates and complex numbers, sequences and series, limits, properties of limits, techniques for evaluating limits, infinite limits, and continuity. The course also introduces the student to the concept of a derivative, a derivative at a point, first and second derivatives of functions, applications, and computations of derivatives.

Students are expected to complete a major research project. Success in Pre-Calculus Honors will allow students to take AP Calculus AB or AP Calculus BC.

STATISTICS AND PROBABILITY **Honors** **Course #2414**

Prerequisite: Teacher recommendation

This course will provide students with a student-centered resource to investigate statistical concepts. Emphasis is on active learning, conceptual understanding, use of genuine real-world data, and technology integration including the TI-84 graphing calculator and spreadsheets. Topics of study will include: data analysis and pattern study, measures of central tendency, variation, confidence intervals and significance tests, the normal distribution, planning and conducting a survey, hypothesis testing, assessing the validity and margin of error of polls, and probability. Students will regularly engage in collaborative projects exploring essential class content. Dual Enrollment credit through Middlesex Community College is available. See the Counseling section above for more information.

AP STATISTICS **Advanced Placement** **Course #2575**

Prerequisite: Teacher Recommendation

This course covers the AP Statistics syllabus of the College Board and students will be prepared to take the AP exam in May. Four conceptual themes of the course include: exploratory analysis, planning and conducting a study, probability, and statistics inference. A minimum of Algebra II honors is strongly suggested for a prerequisite. Graphing calculators will be required for this course.

CALCULUS **Honors** **Course #2504**

Prerequisite: Teacher recommendation

This course will prepare students for a first semester college Calculus course. The course begins with a thorough review of families of functions and trigonometry. Following the review, students investigate limits and continuity, and then begin a comprehensive study of the concept of a derivative, a derivative at a point, first and second derivatives of functions, applications, and computations of derivatives. Time permitting, students will then explore concepts involving integrals. *This course will not prepare students for AP Calculus exam.*

AP CALCULUS AB **Advanced Placement** **Course #2505**

Prerequisite: Teacher recommendation

This course covers the AB syllabus of the Advanced Placement curriculum, beginning with a brief review of families of functions, graphs, and limits. Following this review, students are introduced to the concept of a derivative, a derivative at a point, first and second derivatives of functions, applications, and computations of derivatives. Following the study of derivatives, students explore concepts involving integrals, including Riemann sums, interpretation of properties of definite integrals, elementary and advanced applications of integrals, the Fundamental Theorems of Calculus techniques of anti-differentiation, applications of anti-differentiation, and numerical approximations of definite integrals. Graphing calculators will be required for this course.

AP CALCULUS BC **Advanced Placement** **Course #2515**

Prerequisite: Teacher recommendation

This course covers the BC syllabus of the Advanced Placement curriculum, beginning with a brief review of families of functions, graphs, and limits. Following this review, students are introduced to the concept of a derivative, a derivative at a point, first and second derivatives of functions, applications, and computations of derivatives. Following the study of derivatives, students explore concepts involving integrals, including Riemann sums, interpretation of properties of definite integrals, elementary and advanced applications of integrals, the Fundamental Theorems of Calculus techniques of anti-differentiation, applications of anti-differentiation, and numerical approximations of definite integrals. The remainder of the course covers advanced topics involving integration techniques, L'Hopital's Rule, improper integrals, sequences and series, including Taylor polynomials, Taylor series, geometric series, parametric and polar forms and vector valued functions. Graphing calculators will be required for this course.

BUSINESS MATH

Heterogeneous

Course #2310

Through a series of simulations, projects, and teamwork activities, students will prepare for their personal lives while becoming economically responsible. Areas of study will include: fundamental economics concepts, personal financial planning; financial pitfalls, budgeting, income, and money management (checking, savings, money market accounts, etc); spending, mortgages, student loans, credit and debt management; asset/insurance protection; financial statements; payroll; retirement planning; taxation; consumer practices and purchases: rights, responsibilities, and decision making processes. In each unit of the course, math skills will be emphasized and students will learn the value of applied mathematics. Course is open to 12th Graders, with priority given to those who are taking Business Math as their only math course. Course is only open to eleventh graders who are taking **Business Math** concurrently with another mathematics course.

OCCUPATIONAL EDUCATION

Occupational Education Graduation Requirement: 2.5 Credits

[Business Education](#)

Mr. Patrick Morrissey, Program Administrator

(781) 275-1700 ext. 4507

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Introduction to Business	College Prep	5003	9-12	All	4	5
Hospitality & Tourism	College Prep	6023	9-12	All	4	5
Intro to Marketing	College Prep	5043	9-12	All	4	5
Accounting I	College Prep	5053	10-12	All	2	2.5
Accounting II	College Prep	5063	11-12	All	2	2.5
Business Math	Heterogeneous	2310	11-12	All	4	5

INTRODUCTION TO BUSINESS

College Prep

Course #5003

Prerequisite: None

This is a great starting point for any student who may think they have any interest in learning about business. The course introduces students to the role that businesses play in their lives. The course curriculum provides the student with basic knowledge of the business, economic, and consumer concepts needed as a foundation for other business subjects. Exploration topics include basic economics, international business/relations, social responsibility, ethics, how to organize and start a business, entrepreneurship, management operations, banking operations, stock markets, insurance, marketing. The course is a great introduction for students who may be interested in joining DECA. This is a DECA approved course.

HOSPITALITY & TOURISM

College Prep

Course #6023

Prerequisite: None

Course Description: An introductory course providing an overview and scope of the travel/tourism and hospitality industries. With greater disposable income and more opportunities for business travel, people are traveling the globe in growing numbers. As a result, the hospitality and tourism industry is one of the fastest growing industries in the world. Students learn about key hospitality issues, the development and management of tourist locations, event planning, marketing, and environmental issues related to leisure and travel. Students learn about the four

main sectors: Lodging, Food and Beverage, Transportation, Recreation/Entertainment. The course also examines some current and future trends in the field. Students are introduced to career opportunities and the employability skills needed to succeed in specific hospitality fields. No pre-requisite required. Open to all levels and grades. This course will run every other year beginning in 2019-20. **This course will not be running during the 2022-2023 year.**

INTRO TO MARKETING

College Prep

Course #5043

Prerequisite: None

Introduce yourself to the exciting world of marketing! Students will learn the process of how businesses create new products and bring them into our lives. Students will explore how to understand consumers, create and develop new products, advertise, distribute, price and sell products. Students in this course will contribute to the operation of the school store. This is another great starting point for any student interested in joining DECA. This is a DECA approved course.

ACCOUNTING I (Minor)

College Prep

Course #5053

This beginner accounting course will allow the learner to be introduced to the language of business. Through the use of a computerized program students will be introduced to the theory of debits and credits through typical business transactions in a double-entry accounting system. Students will learn to “keep the books” for a business typical single owner service business as well as merchandising partnership in the private enterprise system. The course will provide students with a strong foundation in accounting principles and is an excellent preparatory class for post-secondary accounting courses. This is a DECA approved course.

ACCOUNTING II (Minor)

College Prep

Course #5063

Prerequisite: Accounting I

This course allows the learner to continue exploring advanced accounting concepts found in first year college courses. The course curriculum will focus on accounting procedures for a merchandising business organized as a corporation. Students selecting this course should have passed Accounting I and enjoy the challenge of a more advanced course. At the completion of this course, students should have a firm foundation for college accounting courses or for employment in the accounting field as a bookkeeper or accounting clerk. This is a DECA approved course.

BUSINESS MATH

Heterogeneous

Course #2310

Through a series of simulations, projects, and teamwork activities, students will prepare for their personal lives while becoming economically responsible. Areas of study will include: fundamental economics concepts, personal financial planning; financial pitfalls, budgeting, income, and money management (checking, savings, money market accounts, etc); spending, mortgages, student loans, credit and debt management; asset/insurance protection; financial statements; payroll; retirement planning; taxation; consumer practices and purchases: rights, responsibilities, and decision making processes. In each unit of the course, math skills will be emphasized and students will learn the value of applied mathematics. Course is open to 12th Graders, with priority given to those who are taking Business Math as their only math course. Course is only open to eleventh graders who are taking Business Math concurrently with another mathematics course. **Business Math is offered by the Math Department. The course is cross-listed in Occupational Education. Business Math counts toward the Mathematics Graduation Requirement of 4 Years / 20 Credits.**

Family and Consumer Science

**Mr. Keith Mangan, Program Director
(781) 275-1700 ext. 4443**

Course Title	Course Number	Grade Level	Semester	# of Periods	Credits
Foods and Nutrition I	6602	9-12	All	2	2.5
Foods and Nutrition II	6613	10-12/	All	2	2.5
Fashion Design I	6702	9-12	All	2	2.5
Fashion Design II	6712	10-12	All	2	2.5
Early Childhood Education	6833	9-12	All	2	2.5
CASE Internship	6832	10-12	All	2	2.5
LABBB Intern	6901	10-12	All	2	2.5
Pre-School Internship	6843	10-12	All	2	2.5
Davis Internship	6823	11-12	All	2	2.5
Lane Internship	6853	11-12	All	2	2.5
JGMS Internship	6863	11-12	All	2	2.5

FOODS & NUTRITION I

Course #6602

Prerequisite: None

This course introduces students to basic principles of food selection and preparation with an emphasis on nutrition and food science. Using a combination of lab experiences, written assignments, and term projects, students learn to prepare recipes, plan nutritious meals and snacks, and work cooperatively in teams. Students are introduced to American regional and international cuisine, and learn about careers in the Food Industry.

FOODS & NUTRITION II

Course #6613

Prerequisite: Foods & Nutrition I (#6602)

This course builds on the basic principles learned in Foods & Nutrition I. Students gain a deeper understanding of food systems, nutrition, and international cuisines and customs. By preparing more challenging recipes, students practice more advanced techniques of food preparation and meal planning and management. Through assigned projects, students explore topics involving consumer issues related to foods and nutrition, computer research studies and careers in the foodservice industry.

FASHION DESIGN I

Course #6702

Prerequisite: None

This course covers elements and principles of design, history of fashion, and fabric, textiles, and adornments in fashion. Students are introduced to the principles of textiles and caring for clothing. Throughout the course students will complete three to four projects.

FASHION DESIGN II

Course #6712

Prerequisite: Fashion Design I (#6702)

This course builds on previous skills for the student who is interested in the Fashion and Interior Design Industry. Students explore various aspects of the principles of design, influences of fashion trends, marketing techniques, and advanced apparel construction techniques.

EARLY CHILDHOOD EDUCATION

Course #6833

Prerequisite: None

This course explores the period of child development from the age of 3 up to 6 years. For students interested in early childhood and elementary education, this course represents the second in a sequence of three courses that focuses on early childhood. It emphasizes methods for creating learning materials and guiding preschool-aged children's learning in a variety of areas including art, language and literacy, mathematics, science, and physical activity. Through working in the Integrated Preschool, observing children, and planning and conducting activities, students gain an appreciation for the period of early childhood and the role of the adult in guiding learning.

CASE INTERNSHIP

Course #6832

Prerequisite: Director Approval and Early Childhood Education

Through working in the CASE classroom, students observe children, plan activities, and learn the principles of child growth and development. Offered as a Pass/Fail class.

PRESCHOOL INTERNSHIP

Course #6843

Prerequisite: Director Approval and Early Childhood Education

Through working in the Integrated Pre-School, students observe children, plan activities, and learn the principles of child growth and development. *Each student must be able to provide his or her own transportation to the field site.* Offered as a Pass/Fail class

DAVIS INTERNSHIP

Course #6823

Prerequisite: Director Approval and Early Childhood Education

For students interested in careers in education, social work, pediatrics, or family policy, this course would provide valuable experience in working with children and families. Students enrolled in the Practicum are assigned an outside field placement at the Davis Elementary School or alternate site when available. Students work in a classroom under the guidance of the site teacher. *Each student must be able to provide his or her own transportation to the field site.* Offered as a Pass/Fail class.

LANE INTERNSHIP

Course #6853

Prerequisite: Director Approval and Early Childhood Education

For students interested in careers in education, social work, pediatrics, or family policy, this course would provide valuable experience in working with children and families. Students enrolled in the Practicum are assigned an outside field placement at the Lane Elementary School or alternate site when available. Students work in a classroom under the guidance of the site teacher. *Each student must be able to provide his or her own transportation to the field site.* Offered as a Pass/Fail class.

JGMS INTERNSHIP

Course #6863

Prerequisite: Director Approval and Early Childhood Education

For students interested in careers in education, social work, pediatrics, or family policy, this course would provide valuable experience in working with children and families. Students enrolled in the Practicum are assigned an outside field placement at JGMS. Students work in a classroom under the guidance of the site teacher. *Students will walk down the path to JGMS from BHS.* Offered as a Pass/Fail class.

LABBB INTERN

Course #6901

Prerequisite: Director Approval and LABBB Program Approval

LABBB interns work closely with LABBB staff in the LABBB program. Offered as a Pass/Fail class.

Technology Education

Mr. Michael Griffin, Program Administrator

(781) 275-1700 ext. 4508

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Drafting Technology I	Heterogeneous	6110	9-12	All	2	2.5
Drafting Technology II	Heterogeneous	6120	10-12	All	2	2.5
Drafting Technology III	Heterogeneous	6130	11-12	All	2	2.5
Introductory Manufacturing & Production Technology I	Heterogeneous	6400	9-12	All	2	2.5
Continuing Manufacturing & Production Technology II	Heterogeneous	6440	10-12	All	2	2.5
Advancing Manufacturing & Production Technology III	Heterogeneous	6450	11-12	All	2	2.5
Engineering and 3D Modeling	Honors	6214	10-12	All	4	5
Robotics and Engine. I	Heterogeneous	6303	9-12	All	2	2.5
Robotics and Engine. II	Honors	6324	9-12	All	4	5
Robotics and Engine III	Honors	6334	9-12	All	4	5
Robotics and Engine IV	Honors	6344	11-12	All	4	5

DRAFTING TECHNOLOGY I **Heterogeneous** **Course #6110**

This course introduces the student to the methods used by industry to communicate technical ideas. The student will develop skills in visualization, multi view drawings, pictorial drawings, auxiliary and sectional views, measurement and dimensioning, and the proper use of drafting tools and equipment. At this level, drawing will be done using drafting machines, CAD drawings and design. The acquisition of these skills will enable the student to interpret industrial drawings and reinforce concepts learned in mathematics. This course provides an excellent background for any student interested in the fields of engineering, manufacturing, or construction.

DRAFTING TECHNOLOGY II **Heterogeneous** **Course #6120**

Prerequisite: Drafting Technology I

Students will use research and development procedures to solve problems related to the fields of engineering and architecture. Skills will be expanded to include computer applications - CAD/CAM/CNC- and practice in recording ideas, visualizing probable form, evaluating data, making decisions, and the presentation of workable solutions. The first half of this course will focus on drawing and practices while the second half will focus on an introduction to Solid Modeling and Computer Aided Design. After learning basic CAD techniques, students will design and develop part and assembly models and drawings common to the field in order to build actual working assemblies.

DRAFTING TECHNOLOGY III **Heterogeneous** **Course #6130**

Prerequisite: Drafting Technology I and II

In this course, students will learn advanced Solid Modeling Techniques common to Mechanical Engineering, beyond those developed in Drafting I and II. Students will design models, drawings, and pictorial/renderings commonly used in Mechanical Engineering. Students will also have the opportunity to perform Structural and

Motion Analyses and Design Studies in order to optimize their designs. Finally, they may have an opportunity to engineer and build solutions for problems or opportunities as presented by members of the Bedford School community using equipment both internal and external to the school. By providing solutions to these customers, they will experience opportunities similar to those faced by engineers in various fields.

MANUFACTURING & PRODUCTION TECH I Heterogeneous Course #6400

This course will emphasize the Engineering and Design strands and standards that fall under the Massachusetts Science and Technology Curriculum Frameworks. Students will be exposed to a broad background in the use of tools and machines, the design and engineering process and become familiar with modern manufacturing and production technologies. A major focus will be placed on the safe and proper use of many common machines (table saws, jointers, power miter saws, planers, lathes, and a wide assortment of portable power tools). The students will design, plan and manufacture products through a variety of manufacturing processes. Products will be designed and built as custom items, be mass-produced, and possibly constructed on an assembly line to simulate various production techniques used in industry today. In this course students will have the opportunity to design and build a product(s) of their own selection (furniture, baseball bats, etc.). Attention will also be paid to the study of a variety of materials used in the manufacture of commonly owned and used products.

MANUFACTURING & PRODUCTION TECH II Heterogeneous Course #6440

MANUFACTURING & PRODUCTION TECH III Heterogeneous Course #6450

Prerequisite: Manufacturing & Production Technology I (#6402)

Students will develop the knowledge and skills needed to transform wood, metal, plastic and other materials into finished products such as furniture, cabinets, sports equipment and other common products. At this level, students will build on prior knowledge and experience in the use of tools and machines to develop plans and designs for products they will build and manufacture. The size and complexity of these products may be substantial over what was done in Tech I and will depend on the individual student's project preference(s). Consumer and career awareness will be developed in addition to reinforcing concepts learned in science and mathematics as students learn to design projects, select materials, and develop the skills needed to build a finished product using the correct tools, equipment and procedures. Hands-on skills in the application of design principles, and use of tools and machines will continue to be developed at these levels, giving students a solid foundation in the skill-areas of many careers currently experiencing a "critical need" of employees.

ENGINEERING AND 3D MODELING Honors Course #6214

Today's engineering is evolving and the skills needed from conception to implementation are requiring students to develop skills that allow them to learn and practice the process. There are radical changes in the way things are designed, made, analyzed, and communicated. This course is designed for students wishing to pursue an understanding of the engineering process from analyzing and interpreting engineering design challenges to designing and creating working models that meet specific requirements and parameters. Students will develop CAD, 3D Modeling, Simple and Complex Design, and Computer Numeric Design skills. The goal is to provide students with a big picture of the Engineering process through development and implementation of skills. Students are expected to have a base knowledge of Geometry.

ROBOTICS AND ENGINEERING I (Minor) Heterogeneous Course #6303

Robotics is a hands-on building and demonstration course. Students design, build and program robots to perform specific tasks. The tasks start simple and progressively get more complicated throughout the course. Some of the topics that will be covered are: Simple machines, Gear and Pulley Systems, Transmission Systems, and Computer Programming. Students will use NXT-G programming software initially and build up to utilizing ROBOT-C. The students will develop the knowledge and skills needed to understand and apply the concepts, the safe and appropriate use of common tools and equipment, troubleshooting and problem solving procedures, safety, consumer and career awareness.

ROBOTICS AND ENGINEERING II	Honors	Course #6324
ROBOTICS AND ENGINEERING III	Honors	Course #6334
ROBOTICS AND ENGINEERING IV	Honors	Course #6344

Prerequisite- Students must have successfully passed Robotics I and II and have teacher recommendations.

Robotics II is a continuation of Robotics I. The projects will get more complicated with the addition of new challenges, new sensors, more advanced Tetrax Building kits, and additional advanced programming techniques. **III and IV** courses will teach the students a strong understanding of industrial robotic automation. The students will learn mechanical design, electrical circuit fabrication, electronic control systems, motor control systems and programming in ROBOT-C. They will be able to design, build, program, and troubleshoot custom made robotic systems. Course requirements include participation in one robotic competition of a student's choosing. Some of the current offerings at Bedford are the Tetrax Competition and Science Olympiad, or the annual B.U. robotics competition.

PERFORMING ARTS DEPARTMENT

**Mrs. Nicole O'Toole, Program Director
(781) 275-1700 ext. 4488**

Performing Arts Graduation Requirement: 2.5 Credits

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Music Performance Major	Honors	8604	9-12	All	4	5.0
Band	Honors	8104	9-12	All	2	2.5
Concert Orchestra	Honors	8114	9-12	All	2	2.5
Chamber Orchestra	Honors	8124	10-12	All	2	2.5
Concert Choir	College Prep	8203	9-12	All	2	2.5
Honors Choir	Honors	8224	10-12	All	2	2.5
Basic Music Theory	College Prep	8413	9-12	All	2	2.5
Advanced Music Theory & Composition	Honors	8424	9-12	All	2	2.5
Beginning Band	College Prep	8103	9-12	All	2	2.5
Beginning Orchestra	College Prep	8113	9-12	All	2	2.5
Class Piano	College Prep	8513	9-12	All	2	2.5
Class Guitar	College Prep	8663	9-12	All	2	2.5
World Drumming	College Prep	8613	9-12	All	2	2.5
Multimedia Music Production	College Prep	8433	9-12	All	2	2.5
Theater Production	College Prep	8763	9-12	All	2	2.5
Honors Theater Production	Honors	8774	9-12	All	2	2.5

Drama	College Prep	8713	9-12	All	2	2.5
Honors Drama	Honors	8724	9-12	All	2	2.5
Ballet I	College Prep	8673	9-12	All	2	2.5

MUSIC PERFORMANCE MAJOR

Honors

Students enrolled in either two sections of curricular ensembles OR one section of a curricular ensemble & music theory can earn 5.0 credits for a Music Performance Major. In addition to the successful completion of each course students will be expected to:

- develop leadership skills as directed by their teachers.
- prepare a performance-based midyear project.
- participate in an evening of chamber music serving as the final exam for the course. This culminating event will involve the students choosing, presenting, and performing their selected repertoire.

To enroll in the Music Performance Major:

- Register for two qualifying courses.
- Be sure that these courses are listed on your final schedule.
- At the start of the school year, the performing arts and counseling departments will overlay the major selection on your schedule.

BAND

Honors

Course #8104

Prerequisite: Approval of Instructor to determine appropriate level

Band is a performance group open to all students who play band instruments. Up to three sections of band will be offered. Students may opt to enroll in multiple sections. Skills necessary for ensemble performance will be stressed, which include the development of technical ability, tone production and sight reading. Members of Band are strongly encouraged to participate in Marching Band. At home practice is expected. Concert participation is mandatory. Prior to each concert there will be a mandatory, evening rehearsal. Grades will be based upon rehearsal participation and behavior, concert and dress rehearsal attendance, and recording assignments.

CONCERT ORCHESTRA

Honors

Course #8114

Prerequisite: Approval of Instructor to determine appropriate level

The orchestra is a performance-based ensemble that performs music from a wide variety of musical styles and time periods. This course is open to any students who play an orchestral string instrument (violin, viola, cello, bass, harp, or piano). Two sections of the course will be offered and students will be allowed to enroll in 1 or 2 sections. Skills necessary for ensemble performance will be stressed, which include the development of technical ability, tone production and sight-reading. At home practice is expected. It is strongly recommended that students in this ensemble take private lessons. Participation in all concerts or performances is mandatory. Prior to each concert there will be a mandatory, evening rehearsal. Grades will be based upon rehearsal participation and behavior, concert and dress rehearsal attendance, and recording assignments. No more than two pianists per section will be accepted. If needed, auditions will be held to fill the accompanist slots.

CHAMBER ORCHESTRA

Honors

Course #8124

Prerequisite: By audition only. To audition one must be a current member of Concert Choir, Band, or Orchestra. Exceptions will be considered through recommendation of a music teacher.

Chamber Orchestra is an advanced performance-based ensemble that performs a sizable repertoire of high-caliber orchestral literature from a wide variety of musical styles and time periods, with a focus on Baroque and Classical Chamber Music. String students will be chosen based upon assessments of musical independence, and advanced technique skills (phrasing, vibrato, shifting, and musicality). Evidence of maturity and cooperative learning abilities as demonstrated in participation in other BHS performance ensembles is also necessary. Instruction and practice in independent group orchestral skills, and music theory will be given. String students should be able to learn music quickly through a required home practice regimen. It is strongly recommended that students in this ensemble take private lessons. Participation in all concerts or outside performances is mandatory. Prior to each concert there will

be a mandatory, evening rehearsal. Grades will be based upon rehearsal participation and behavior, concert and dress rehearsal attendance, and recording assignments.

CONCERT CHOIR **College Prep** **Course #8203**

Prerequisite: Approval of the instructor to determine appropriate level

Concert Choir is a general level choral performance group, exploring literature from a wide range of styles and time periods. Vocal health and skills are emphasized including appropriate breathing, posture, tone production, sight reading and part singing skills. No previous vocal experience is required. At home practice is expected. Concert participation is mandatory. Prior to each concert there will be a mandatory, evening rehearsal. Grades will be based upon rehearsal participation and behavior, concert and dress rehearsal attendance, and recording assignments. Student pianists are welcome to take this course as approved by the teacher.

HONORS CHOIR **Honors** **Course #8224**

Prerequisite: By audition only. To audition one must be a current member of Concert Choir Band, or Orchestra.

Exceptions will be considered through recommendation of a music teacher.

Honors Choir rehearses and performs a sizable repertoire of high-caliber choral literature from a wide variety of musical genres and periods. Singers will be chosen based upon assessments of vocal independence, harmonization abilities, and sight-singing skills. Evidence of maturity and cooperative learning abilities as demonstrated in participation in other BHS performance ensembles is also necessary. Instruction and practice in healthy vocal technique and advanced sight-singing will be given. Singers should be able to learn and memorize music quickly through a required home practice regimen. BHS Honors Choir performs both in the high school concerts as well as several other venues outside of school throughout the year. Students should be committed to these occasional outside performances. Concert participation is mandatory. Grades will be based upon rehearsal behavior, concert and dress rehearsal attendance, and recording assignments.

BASIC MUSIC THEORY **College Prep** **Course #8413**

Prerequisite: None

This course covers basic music theory concepts including note reading and writing, rhythms, scales, triads, four-part harmony, transposition, and basic composition. Emphasis is placed on ear-training through listening and the dictation of rhythms and melodies. Notation and symbols as formalized by J.S. Bach as well as contemporary notation will be utilized. The year culminates with a composition project. No technical knowledge of music is necessary, however a working knowledge of musical notation is highly recommended.

ADVANCED MUSIC THEORY & COMPOSITION **Honors** **Course #8424**

Prerequisite: Basic Music Theory or Teacher's approval.

In this course the student will learn to realize a figured bass and part-write with proper voice leading as formalized by J. S. Bach. The students will also discover the function of harmony, learn to write chord progressions, and how to harmonize their melodies. In addition, contemporary musical styles will also be explored. Emphasis is placed on the creative process of composition while learning advanced concepts of music theory. Students will compose, arrange, and analyze music throughout the year learning about phrasing and different musical forms. The course is highly creative and will include the performance of classmates' compositions.

BEGINNING BAND **College Prep** **Course #8103**

This course will be for students who do NOT already play a concert band instrument and would like to start at the high school level. It is also available to students who play an instrument but would like to explore a different band instrument. Students will learn from a method/lesson book in a mixed ensemble setting to build skills and have performance opportunities throughout the school year. Grading will be based on completion of lesson book units and classwork. Students may use an instrument that they already own, or choose to rent a brand-new instrument. In some cases, the school may own an instrument that a student may borrow while enrolled in the course. Students who advance quickly in their studies may be invited to perform with BHS Concert Band or Marching Band.

BEGINNING ORCHESTRA **College Prep** **Course #8113**

This course will be for students who do NOT already play a string instrument and would like to start at the high school level, OR students who already play a string instrument but would like to explore a different string

instrument. Students will learn from a method/lesson book in a mixed ensemble setting to build skills and have performance opportunities throughout the school year. Grading will be based on completion of lesson book units and classwork. Students may use an instrument that they already own, or choose to rent a brand-new instrument. In some cases, the school may own an instrument that a student may borrow while enrolled in the course. Students who advance quickly in their studies may be invited to perform with the BHS Orchestra.

CLASS PIANO **College Prep** **Course #8513**

This beginner course teaches basic piano skills to all students. It is expected that students will have little or no experience playing the piano. Proper playing technique is covered as well as note reading in both clefs. Musical skills such as rhythm, harmony, and melody are also covered. Students are not required to have any previous piano skills. Priority will be given to those students with no previous experience. **LIMITED NUMBER OF SPACES AVAILABLE.**

CLASS GUITAR **College Prep** **Course #8663**

Prerequisite: None

This course teaches basic guitar skills to all students. Students in this course do not need to have prior guitar experience. Those who do will be required to learn more advanced concepts in conjunction with the basic skills learned by all. Proper playing technique is covered including note reading and chords. Musical skills such as rhythm, harmony, and melody are also covered. A guitar for class will be provided. **LIMITED NUMBER OF SPACES AVAILABLE.**

WORLD DRUMMING **College Prep** **Course #8613**

Prerequisite: None

World drumming is the exploration of percussion instruments and traditions from a variety of cultures from around the world. This is a course where students use hands-on participation to communicate through percussion instruments, perform in “drum circles,” create their own non-traditional instruments and provide accompaniment for other performance arts. A majority of activities will focus on the African Djembe drum and its various applications, but the course will also cover hand percussion, barred instruments such as the xylophone and marimba, concert percussion, and drum set. No drumming experience is necessary to take the course, only a willingness to experience new things. Grading will be based on class performance, playing evaluations and written tests. **LIMITED NUMBER OF SPACES AVAILABLE.**

MULTIMEDIA MUSIC PRODUCTION **College Prep** **Course #8433**

In this course, students will learn techniques used in modern music production, multi-media productions, live sound and event production, and create original projects with digital media. Various types of software will be explored to gain an understanding of how to manipulate musical and everyday/found sounds and apply them to real life situations and audio/visual careers. In addition, students will learn about MIDI (Musical Instrument Digital Interface) applications and learn how to operate a soundboard. Although not required, students in the course have opportunities to apply these new skills by working with the BHS technical crew for school performances. The class will learn about careers in the music business and how to explore opportunities beyond the classroom. Experience in music is not necessary, only a willingness to explore new ideas and learn about the exciting world of music and live performance technology. **LIMITED NUMBER OF SPACES AVAILABLE.**

THEATER PRODUCTION I **College Prep** **Course #8763**

This hands-on course is designed to give students an introduction into the technical side of theater. Throughout the year students will learn the ins and outs of what goes into producing a show from the perspective of the technical crew, the designers, and the director. To achieve this, students will work on hands-on projects where they design sets, build props and costumes for our play and musical productions, and learn about different careers in theater. Come explore your creativity and expand your theatrical horizons! Students taking this course are encouraged to participate in either stage crew or cast for the winter musical and/or the fall play to gain real world experience on the topics studied in the class.

HONORS THEATER PRODUCTION

College Prep

Course #8773

Prerequisite: Theater Production or teacher approval.

This hands-on course is designed as the next level of Theater Production. This course will be combined with Theater Production I. Students in Theater Production II will work with students in Theater Production I by taking leadership roles. The work students do in this class will be showcased in our fall play and winter musical. Gain a deeper ownership of the theater while developing your own theatrical design skills! Students taking this course are encouraged to participate in either stage crew or cast for the winter musical and/or the fall play to gain real world experience on the topics studied in the class.

DRAMA

College Prep

Course #8713

Drama serves as an introduction to acting. Students will learn about a variety of acting techniques, including pantomime, improvisation, and character development. Our work will culminate in a short play that is performed by the class at an Acting Showcase in May. Students in this class must be comfortable acting in front of their peers, receiving constructive criticism, and performing in a public showcase.

HONORS DRAMA

Honors

Course #8724

Prerequisite: Drama or teacher approval.

This course is designed for the student who has taken Drama or has had some experience acting in productions. Honors Drama students must take on additional responsibilities and assume a leadership role within the class. This class will meet concurrently with Drama. Our work will culminate in a short play that is performed by the class at an Acting Showcase in April. Students in this class must be comfortable acting in front of their peers, receiving constructive criticism, and performing in a public showcase.

BALLET I

College Prep

Course #8673

This beginning ballet course is open to all students including experienced dancers interested in refining their skills. Students interested in pursuing acting, musical theater, or dance must have experience in ballet as it is the foundation on which musical theater and other dance forms are based. In this class you will learn classical ballet technique, the history of ballet, and the language of ballet. Students will dance every class to develop the muscles, skills, and artistry needed for dancing ballet. Students will need appropriate ballet shoes and comfortable clothing for class. Information, including shoe scholarships, will be given during the first week of school. Our work will culminate in a showcase that will be performed at the end of the year. Credit for this course may not be applied to physical education credit.

SCIENCE

Mr. Michael Griffin, Program Administrator

(781) 275-1700 ext. 4508

Science Graduation Requirement: 3 Years / 15 Credits

Science Program

Traditional Science Course Progression by Year & Initial Course Enrollment

Grade Level	Science Course
Grade 9	Physics
Grade 10	Chemistry
Grade 11	Biology
Grade 12	Elective

AP and Elective Offerings

First Year Eligible	Course	Course Prerequisite
Grade 9	Robotics	None
Grade 10	AP Physics 1-2	Physics
Grade 11	AP Chemistry	Chemistry
Grade 11	Anatomy and Physiology	Biology
Grade 11	Environmental Science - AP, Honors	Biology
Grade 12	AP Physics C	Physics and Calculus
Grade 12	Marine Biology	Senior Elective
Grade 12	Astronomy	Senior Elective
Grade 12	Forensics	Senior Elective
Grade 12	AP Biology	Biology

Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
Lab Science I	Heterogeneous	7731	9-12	All	4	5
Lab Science II	Heterogeneous	7732	9-12	All	4	5
Lab Science III	Heterogeneous	7733	9-12	All	4	5
Lab Science IV	Heterogeneous	7734	9-12	All	4	5
Physics (Lab)	High Honors	3105	9	All	4	5
Physics (Lab)	Honors	3104	9	All	4	5
Physics (Lab)	College Prep	3103	9	All	4	5
Chemistry (Lab)	High Honors	3305	10	All	4	5
Chemistry (Lab)	Honors	3304	10	All	4	5
Chemistry (Lab)	College Prep	3303	10	All	4	5
Biology (Lab)	High Honors	3205	11	All	4	5
Biology (Lab)	Honors	3204	11	All	4	5
Biology (Lab)	College Prep	3203	11	All	4	5
Anatomy & Physiology (Lab)	College Prep	3503	11-12	All	4	5
Anatomy & Physiology (Lab)	High Honors	3505	11-12	All	4	5
Forensic Science (Lab)	Honors	3604	12	All	4	5
Marine Science (Lab)	College Prep	3213	12	All	4	5
Marine Science (Lab)	Honors	3214	12	All	4	5
Astronomy and Space Explorations (Lab)	Honors	3804	12	All	4	5

CHEMISTRY (Lab) High Honors Course#3305

Prerequisite: Physics and Teacher recommendation.

This course will include a more intensive and in-depth study of the topics listed above. This is a fast paced course where students should expect to learn new material every class. Students selecting this course should have reading skills at or above grade level and be able to solve problems by applying algebraic methods. For this reason, the instructor will assume that students will be able to solve quantitative problems independently. Students who work successfully in this course are encouraged to enroll in AP chemistry and to take the SAT II (Achievement) Test in Chemistry.

CHEMISTRY (Lab) Honors Course #3304

Prerequisites: Physics and teacher recommendation.

This course and laboratory component is designed to provide a survey of chemical principles for students who are interested in the subject. Students selecting this course should have reading skills at grade level and be able to solve problems by applying algebraic methods. For this reason, the instructor will assume that students will be able to solve problems independently.

CHEMISTRY (Lab) College Prep Course #3303

Prerequisite: Physics

This course and Laboratory component are designed for students who want a working knowledge of chemical principles. It will stress the basic concepts of chemistry on a conceptual level linking them with real world phenomena.

BIOLOGY

The biology courses focus on the following concepts: chemical and cellular basis of life, energy transformations, genetics and biotechnology, evolution and biodiversity, and animal systems. Each topic will be supported by appropriate laboratory experiences. Skills that will be developed in biology include: note taking, collecting data, writing a lab report, reporting on outside reading or projects and test taking. This course is the third in the core science series.

BIOLOGY (Lab) High Honors Course #3205

Prerequisite: Chemistry and teacher recommendation.

Using an independent student centered approach of instruction; this course builds on students prior knowledge of basic biological concepts focusing on application and inquiry. Students selecting this course should have reading skills at or above grade level and be able to work independently. Students who work successfully in this course are encouraged to enroll in AP Biology and to take the SAT II (Achievement) Test in Biology.

BIOLOGY (Lab) Honors Course #3204

Prerequisite: Chemistry and teacher recommendation.

Using guided instruction this course reviews and deepens students' prior knowledge of basic biological concepts focusing on understanding with some application and inquiry.

BIOLOGY College Prep Course #3203

Prerequisite: Chemistry

Using an activity-oriented approach this course will cover the basic biological concepts outlined by the state frameworks. Students selecting this course should have standard reading and writing skills.

SCIENCE ELECTIVE COURSES

ANATOMY & PHYSIOLOGY (Lab) High Honors Course #3505

College Prep

Course #3503

Prerequisite: Biology & Chemistry and teacher recommendation

This course will concentrate on the anatomy, physiology, and histology of the human systems which include: the skeletal, muscular, integumental, nervous, respiratory, digestive, circulatory, excretory, reproductive systems, as well as endocrinology, and immunology. Students should have above average reading ability. Skills that will be developed in this course include: writing biological abstracts, doing independent research, making better observations, relating structure with function, improved techniques of dissection and microscopy.

Students electing to take High Honors will explore the physiology of these body systems in depth and will be required to complete independent research topics for each unit of study. Students electing the High Honors have a summer assignment to review material that they are expected to know entering the course.

MARINE SCIENCE (Lab) Honors Course #3214
MARINE SCIENCE (Lab) College Prep Course #3213

Prerequisite: Grade 12 and Teacher Recommendation

In marine science, students will learn about life in the ocean depths, at the polar extremes, in coral reefs, estuaries, and in the open sea. Marine organisms studied include poriferans, cnidarians, marine worms, mollusks, arthropods, echinoderms, marine fishes, and marine mammals. Through studying marine life, students will connect characteristics and behaviors that help them thrive in various marine biomes, and investigate threats that face these ecosystems. Additionally, students will study oceanography (waves, tide, properties of seawater, etc.) concepts to support their understanding of these complex marine ecosystems. Students should have reading skills at or above grade level. Skills that will be developed include: observation, dissection, interpretation and understanding of plant and animal behavior, critical analysis and synthesis of data, and seeking ways to solve problems relating to the marine environment.

FORENSIC SCIENCE (Lab)/FORENSICS IN MEDIA Honors Course #3604

Prerequisite: Grade 12 and Teacher Recommendation

Forensic science is a senior-level course rich in exploration and lab investigation which applies many disciplines of scientific study such as biology/anatomy, chemistry, and physics to solving crimes. The course examines the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. Major topics include processing a crime scene, collecting and preserving evidence, identifying types of physical evidence, organic and inorganic analysis of evidence, trace evidence, serology, DNA, fingerprints, firearms, anthropology, and document analysis. Students will analyze how forensics is presented in various media outlets such as film and print, and explore how forensics science plays a role in our world.

ASTRONOMY AND SPACE EXPLORATION Honors Course #3804
ASTRONOMY AND SPACE EXPLORATION College Prep Course #3803

Prerequisite: Grade 12 and Teacher Recommendation

This first-year, introductory astronomy course will allow students to explore the cosmos beginning with their own naked-eye view of the night sky. Beginning with the Sun-Earth-Moon system that governs our daily, monthly and yearly patterns, students will then learn to recognize constellations and the path of the planets in the sky. After studying planetary science, the course will focus on the sun and other stars, including life cycles and classification of stars. From there the course will examine galaxies and cosmology. After examining this local-to-distant study of the universe, the focus will shift to a review of the history of space exploration, beginning with archaeoastronomy to the revolution of Copernicus and Galileo, the discovery of objects beyond the Milky Way by Edwin Hubble, up through the evidence for the expanding universe, dark matter and dark energy. The year will conclude with a study of the history of spaceflight, from the Mercury Astronauts to current space exploration and programs, culminating with an in-depth investigation into the future of spaceflight.

SCIENCE INTERN Course #3701

Prerequisite: Program Administrator Approval and Grade 12

The science interns work with science staff to prepare labs, breakdown labs, clean equipment, help maintain tanks and the greenhouse, help with inventory, and assist with lab experiments when necessary. All interns must be approved by the Science Program Administrator and will be assigned to a science instructor based on need.

LAB SCIENCE I	Heterogeneous	Course #7731
LAB SCIENCE II	Heterogeneous	Course #7732
LAB SCIENCE III	Heterogeneous	Course #7733
LAB SCIENCE IV	Heterogeneous	Course #7734

Prerequisite: School and Counseling Approval

The Lab Science course is designed to reflect the development of the Science and Engineering practices through the Science, Technology, and Engineering frameworks of Massachusetts. Each section is customized to meet the needs of the individual student to continue the development of their knowledge and application of science concepts. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

ADVANCED PLACEMENT ELECTIVES

Students enrolling in AP must meet all prerequisites and be recommended by their teacher. All AP course syllabi have been approved by the College Board and are held to the standards and rigor set forth by the College Board. For specific content expectations please visit: apcentral.collegeboard.com or contact Michael Griffin, Science Program Administrator. ALL AP Science courses are equivalent to a College Level Course. Please note, all AP courses have summer assignments to review material that they are expected to know upon entering the course.

AP PHYSICS 2	Advanced Placement	Course #3405
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Prerequisite: Physics and teacher recommendation.

AP Physics 2 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, waves, and probability. Completion of the course allows the student to take the Advanced Placement Physics 2 exams.

AP CHEMISTRY	Advanced Placement	Course #3355
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Prerequisite: Chemistry Honors/High Honors and Algebra II and teacher recommendation.

This course is designed to be a college level course. The course will cover the six big ideas prescribed by the College Board: structure of matter, bonding and intermolecular forces, chemical reactions, kinetics, thermodynamics, and chemical equilibrium. Meaningful laboratory work as prescribed by the College Board will help prepare a student for sophomore level chemistry courses in college. Completion of the course allows the student to take the Advanced Placement Chemistry exam.

AP ENVIRONMENTAL SCIENCE	Advanced Placement	Course #3605
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Prerequisite: Biology (May be taken simultaneously) & teacher recommendation

The goal of the Advanced/AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, and to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. APES will be concurrently run with Environmental Science Honors. Students electing to take the AP portion of the class will have a high degree of independent work. Completion of the course allows the student to take the Advanced Placement Environmental Science exam.

AP BIOLOGY	Advanced Placement	Course #3255
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Prerequisite: Biology & teacher recommendation.

AP biology is an advanced course that explores basic biology concepts in greater depth. Designed to cover the required course work prescribed by the College Board, this course is fast paced and requires students to be independent learners. Topics include cell biology, molecular genetics, organismal biology and behavior, evolution, ecology, and structure and function of plants. Related laboratory exercises are an integral component and are integrated throughout the course work. Students enrolling in AP Biology must have completed a year of introductory biology during an academic year. Completion of the course allows the student to take the Advanced Placement Biology exam.

United States History II	Honors	1304	11	All	4	5
United States History II	College Prep	1303	11	All	4	5
United States History II	Introductory CP	1302	11	All	4	5
Fundamentals of US History II	Fundamental	1301	11	All	4	5
Issues in US History	College Prep	7712	9-12	All	4	5
Economics	Honors / High Honors	1554/1555	12	All	4	5
Gender Studies	Heterogeneous	1450	11/12	All	4	5
Government	Honors	1704	11/12	All	4	5
Law	Honors / High Honors	1604/1605	11/12	All	4	5
Psychology	Honors / AP	1534/1535	11/12	All	4	5
Real World Social Studies	Heterogeneous	1310	11/12	All	4	5
Sociology	Honors	1524	11/12	All	4	5

UNITED STATES HISTORY I

This course is required for students in 9th grade. The overarching goal for United States History I is for students to understand that they are part of a democratic society in which the acts of individuals impact the course of history, and that they gain the skills to become responsible contributors to the wider community. The course content focuses primarily on the 1800s, including the early republic, antebellum America, the Civil War and Reconstruction, westward expansion, and industrialization. However, special emphasis is placed on connection to present day and current events. To help develop the skills necessary to productive democratic participation, emphasis is placed on critical thinking skill development including:

- understanding and diagramming different types of historical reasoning,
- reading, interpreting, and critically examining primary and secondary sources to assess the effectiveness of the different methods for change
- using critical thinking and research skills to understand and interpret current events related to their study of history

Students will complete short as well as more sustained research projects. Students will write clear arguments that are well supported by evidence. **REQUIRED FOR GRADUATION.**

UNITED STATES HISTORY I **High Honors** **Course #1105**
 Concepts are often developed in the most abstract and theoretical form. The sources are often of a professional academic nature and thus require reading comprehension above grade level. Students are expected to complete readings and related work independently in preparation for class discussions and activities.

UNITED STATES HISTORY I **Honors** **Course #1104**
 Concepts are introduced using a balance of abstract & concrete approaches. The sources are typically at grade level and occasionally of a professional academic nature. The course has challenging reading and writing assignments, and students are expected to be able to engage in both independent and collaborative work.

UNITED STATES HISTORY I **College Prep** **Course #1103**

Concepts are introduced using a balance of abstract & concrete approaches with an emphasis on the concrete. The sources are typically at grade level. Teachers provide instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners.

UNITED STATES HISTORY I **Introductory College Prep** **Course #1102**

Concepts are introduced in the most concrete form along with carefully selected abstractions. The sources are typically at or below grade level. Teachers emphasize instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

FUNDAMENTALS OF UNITED STATES HISTORY I **Fundamental** **Course #1101**

Concepts are introduced in the most concrete form with an emphasis on vocabulary and main ideas. The sources are typically below grade level. Teachers emphasize instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

TOPICS IN UNITED STATES HISTORY **College Prep** **Course #7711**

Concepts are introduced using a balance of abstract and concrete approaches. The sources are typically at grade level. Students are expected to be able to engage in both independent and collaborative work. Teachers provide instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

MODERN WORLD HISTORY

Modern World History is a survey course of world history from the French Revolution to the present day. Students will examine historical events and themes that have occurred in different areas of the world in the modern era, as well as the historical events preceding and contributing to these events. Students will develop communication skills through writing, discussion, and presentations with an emphasis on developing analytical and persuasive writing skills. As students explore different cultures and different time periods, they will be asked to examine multiple perspectives and use creative approaches to analyze cause and effect relationships. They will be asked to think critically as they examine primary sources and engage in historical analysis. They will work collaboratively with their peers in short and long-term projects designed to help them understand the significance of key historical events in the development of the current world. **REQUIRED FOR GRADUATION.**

MODERN WORLD HISTORY **High Honors** **Course #1205**

Prerequisites: Recommendation of United States History I Teacher

The course moves through history at a rapid pace and has both demanding reading and writing assignments, and students are expected to do a large amount of independent work outside of class.

MODERN WORLD HISTORY **Honors** **Course #1204**

Prerequisite: United States History I

The course homework and projects are designed to reinforce class material and further develop critical thinking skills. The course has challenging reading and writing assignments, and students are expected to be able to engage in both independent and collaborative work.

MODERN WORLD HISTORY **College Prep** **Course #1203**

Prerequisite: United States History I

The course uses historical material as means for further developing reading, writing and critical thinking skills. This course places an emphasis on expressing structured arguments through writing, verbal responses and various projects.

MODERN WORLD HISTORY

Introductory College Prep

Course #1202

Prerequisite: United States History I

The course uses historical material as means for further developing reading, writing and critical thinking skills. This course places an emphasis on expressing structured arguments through writing, verbal responses and various projects with additional teacher support. The sources are typically at or below grade level. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

FUNDAMENTALS OF MODERN WORLD HISTORY Fundamental

Course #1201

Concepts are introduced in the most concrete form with an emphasis on vocabulary and main ideas. The sources are typically below grade level. Teachers emphasize instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

TOPICS IN MODERN WORLD HISTORY

College Prep

Course #7713

Concepts are introduced using a balance of abstract and concrete approaches. The sources are typically at grade level. Students are expected to be able to engage in both independent and collaborative work. Teachers provide instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

ISSUES IN MODERN WORLD HISTORY

College Prep

Course #7714

Concepts are introduced using a balance of abstract and concrete approaches. The sources are typically at grade level. Students are expected to be able to engage in both independent and collaborative work. Teachers provide instruction and scaffolding regarding study skills, organizational skills and learning strategies to help students become independent learners. Enrollment in this course is only with permission from an administrator or as dictated by an individualized plan.

UNITED STATES HISTORY II

This course is required for students in 11th grade. Students will continue to explore the social studies critical thinking skills system. Emphasis is placed on evaluation of arguments with additional emphasis placed on decision-making. Students will apply these skills to their study of diverse interpretations of core American values such as liberty, equality, and individualism. The course content spans the Progressive era up through the present, including foreign affairs topics such as imperialism, the World Wars, and the Cold War as well as issues of a domestic focus such as the Great Depression and the Civil Rights Movement. Students are expected to learn material by reading a variety of sources. Students will conduct short as well as more sustained independent research projects. Students will write clear arguments that are well supported by evidence and will use technology to demonstrate their learning. Students will also engage in a student-led, non-partisan civics project. This project is designed to promote a student's ability to: analyze complex issues; consider differing points of view; reason, make logical arguments and support claims using valid evidence; engage in civil discourse with those who hold opposing positions; and demonstrate an understanding of the connections between federal, state and local policies, including issues that may impact the student's school or community. **REQUIRED FOR GRADUATION.**

UNITED STATES HISTORY II

High Honors

Course #1305

Prerequisites: Recommendation of Modern World History teacher

Concepts are often developed in the most abstract and theoretical form. The sources are often of a professional academic nature and thus require reading comprehension above grade level. Students publish their research projects at the History Fair in one of five different forms: documentary, exhibit, paper, performance or website. Students are expected to complete readings and related work independently in preparation for class discussions and activities.

address the nature vs. nurture debate, biological foundations of gender, and masculinity in America today. This course emphasizes contemporary gender issues and students will evaluate events in American and world history using gender as a lens to analyze these issues. Students are expected to complete a significant amount of independent reading outside of class, including supplementary articles and books. The class is grounded in discussion, reflection, and analysis of many of the themes and ideas introduced in course readings. The course addresses challenging and sensitive issues throughout the year. Students will be expected to complete a midterm book study in which they will select a book that relates to the course, analyze it, write a paper, and deliver a presentation to the class.

GOVERNMENT **Honors** **Course #1704**

Upon completion of this course, students will have achieved a thorough understanding of the purpose, process, and role of the American system of government. Studies will emphasize the ideas and government framework established by the U.S. Constitution as well as the political process within a representative democracy. Lessons will challenge and encourage students to become informed and active participants in society by developing an awareness of their rights and responsibilities as American citizens and to exercise these rights and responsibilities in local, state, and national government. Topics of study include the history of American political thought, the purpose and role of the executive, legislative, and judicial branches, as well as local, state, and national governments, political parties, interest groups, campaigns, and elections. Content will be presented through analysis of written arguments, discussion of current issues and events, first-hand experiences, case studies, research, critical thinking, and decision making activities. Students will demonstrate their mastery of content through a variety of written and performance-based products. This course is eligible for dual enrollment; see the Counseling section for additional information.

LAW **Honors/High Honors** **Course #1604/1605**

What makes good law? Law explores the American legal system with an emphasis on constructing, analyzing and evaluating arguments. The course emphasizes arguing and deciding historical, contemporary and hypothetical cases with a focus on Constitutional rights and the Criminal Law, and their relationship with foundational political values. Students will also learn about the legal system, dispute resolution, property law, and family law. The course requires analytical thinking and self-directed learning. Students enrolled in High Honors should be capable of analyzing and evaluating additional independent readings, should write at a college level, and be prepared for differentiated assessments. Both levels of this course are eligible for dual enrollment; see the Counseling section for additional information.

PSYCHOLOGY **Honors** **Course #1534**
AP PSYCHOLOGY **Advanced Placement** **Course #1535**

Psychology is the scientific study of what people do and why people do it. Students explore and respond to essential questions about human behavior and mental processes with an emphasis on the relationship between course content and students' own life experiences. Content areas include dreams and consciousness, perception, social psychology, human development, intelligence, emotion, personality and psychological disorders. Psychological perspectives and the scientific method will give students tools for evaluating competing visions of the way that people work. The course requires initiative and independent reading and writing ability. Students enrolled in the Advanced Placement level should be capable of critically analyzing and evaluating additional independent readings and should write at an advanced level. Students enrolled in the Advanced Placement level have differentiated assessment on tests, quizzes and projects as well. Both levels of this course are eligible for dual enrollment; see the Counseling section for additional information.

REAL WORLD SOCIAL STUDIES **Heterogeneous** **Course #1310**

A primary objective of this course is to foster awareness and understanding of issues that will impact students' lives. The course often uses current events to inform the study of topics including but not limited to: college and career options, personal finance and responsible budgeting, navigating the job and housing markets, psychology, sociology, economics, active citizenship within the local, state, and federal government, and national and world

news and how events affect us. The diversity of topics and applications will also provide students the opportunity to discover possible interests as they think critically about their own lives and inform their post-graduate decisions and plans. Students will be guided and supported with varied resources and instructional strategies as they engage in inquiry and self-directed learning. Current events will also be examined as they arise in multiple contexts.

SOCIOLOGY

Honors

Course #1524

Sociology is a study of the varied relationship between man and his society, and includes an analysis of current and changing social problems, exploration of similarities and differences between our own and other cultural groups, and development of awareness of the importance of human dynamics and interactions. Students selecting this course should have good reading comprehension skills. Sound verbal and written communication skills should also be present, as participation in class discussion and debate is an integral component of the class. Skills that will be developed in this course include analytical and critical thinking, inferential reading, sharpened inquiry techniques, and improved cooperative learning techniques through small group project experiences. This course is eligible for dual enrollment; see the Counseling section for additional information.

SPECIAL EDUCATION

Ms. Michelle DellaValle, Program Administrator
(781) 275-1700 ext. 4424

Bedford High School offers an array of special education services to meet the individualized needs of diverse learners. Services are determined through the special education process as dictated by state and federal regulations. Please contact Michelle DellaValle, Program Administrator, for specific questions about services. A Continuum of Services is available for viewing on the district website or in paper copy in the central special education office.

WELLNESS

Mr. Keith Mangan, Program Director
(781) 275-1700 ext. 4443

Physical Education Graduation Requirement: 3 Years / 7.5 Credits*
Health Education Graduation Requirement: 2 Semesters / 2.5 Credits

Course Title	Course Number	Grade Level	Semester	# of Periods	Credits
Sports and Fitness / PE 9	9050	9	All	2	2.5
Health / H 10	9150	10	All	2	2.5
Peer Leadership	9043	11-12	All	2	2.5
Lifetime Activities / PE 11	9211	10-12	All	2	2.5
Sports Activities / PE 12	9221	10-12	All	2	2.5
Athletic Intern	9271	12	All	2	2.5

*One year of Health and three years of Physical Education

SPORTS AND FITNESS / PE 9

Course #9050

Physical Education classes are designed to practice and develop skills in activities that will help students maintain fitness throughout their life. Early in the fall students fitness levels will be assessed in the following areas: cardiovascular endurance, flexibility, muscular strength and muscular endurance. From these assessments we will develop a baseline in which we will use to set personal fitness goals. We will explore fitness activities designed to improve all areas of fitness. Our goal is that by the end of the year students will improve their scores on their baseline fitness tests through regular cardiovascular endurance training, muscular endurance training, and activities designed to increase current levels of fitness. Students will be introduced to life-long activities designed to increase their likelihood of exercising in the future. Students will understand the benefits that regular exercise can provide for a person's mental, physical, and social health.

HEALTH / H 10

Course #9150

This course will establish a foundation of skill-based health. The first half of the year will include: factual information on nutrition, mental health, stress and stress management techniques in addition to topics on communication, refusal, assertiveness/self-advocacy, decision making goal setting and internet safety and responsibility. The second half of the year will include: healthy vs. unhealthy relationships, alcohol, drugs, distracted driving, growth and development, pregnancy, sexually transmitted infections, and contraception.

PEER LEADERSHIP

Course #9043

Prerequisite: By application, with department approval.

This minor elective is designed to achieve two objectives: first, to acquaint students with information about current social issues. Second, to give students hands-on experience with multiple methods of relating to and presenting information to large and small audiences of various ages. This course may require some after school time.

SPORTS ACTIVITIES / CROSS TRAINING PE 12

Course #9221

Students will apply knowledge of rules, team roles, officiating techniques, games history and strategy to Team Sports. The objectives are to enhance physical fitness, team cooperation, ethical competitive values and a lasting interest in lifetime physical activities. The course will also include an approach to fitness and performance training, including: development in speed, agility, strength, power, flexibility and balance. Utilization of current Strength and Conditioning principles will be stressed. Students will participate in a variety of recreational, individual/dual and team activities.

LIFETIME ACTIVITIES / HEALTHY BEHAVIORS PE 11

Course #9211

Students will apply knowledge of rules, team and individual roles, officiating techniques, games history and strategy to lifelong physical activities. In addition, the course will offer a unique approach to adopting and maintaining a healthy lifestyle. Students will engage in a variety of activities designed to increase awareness of stress management, character education, nutrition planning, and current fitness and health-related trends.

ATHLETICS INTERN

Course #9271

Prerequisite: Program Director Approval and Grade 12

The athletics interns work with athletics staff to prepare facilities, clean and maintain equipment, help with inventory. All interns must be approved by the Athletic Director and will be assigned based on need.

WORLD LANGUAGE

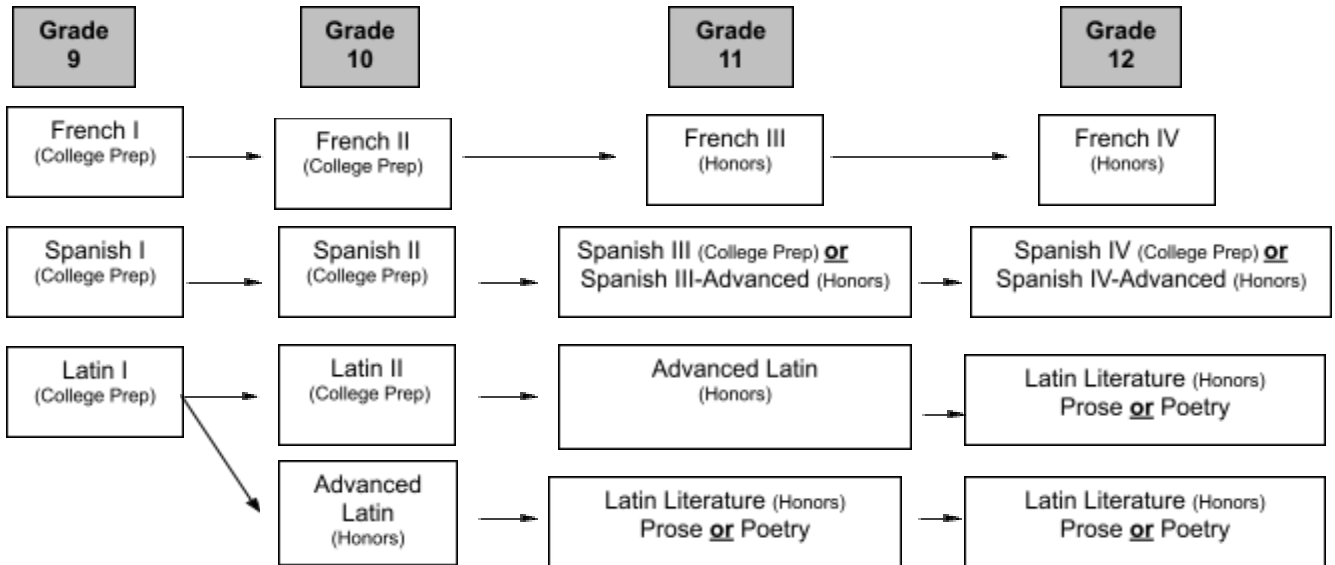
**Ms. Adriana Thomas, Program Director
(781) 275-1700, ext. 4522**

World Language Graduation Requirement: 2 Years / 10 Credits

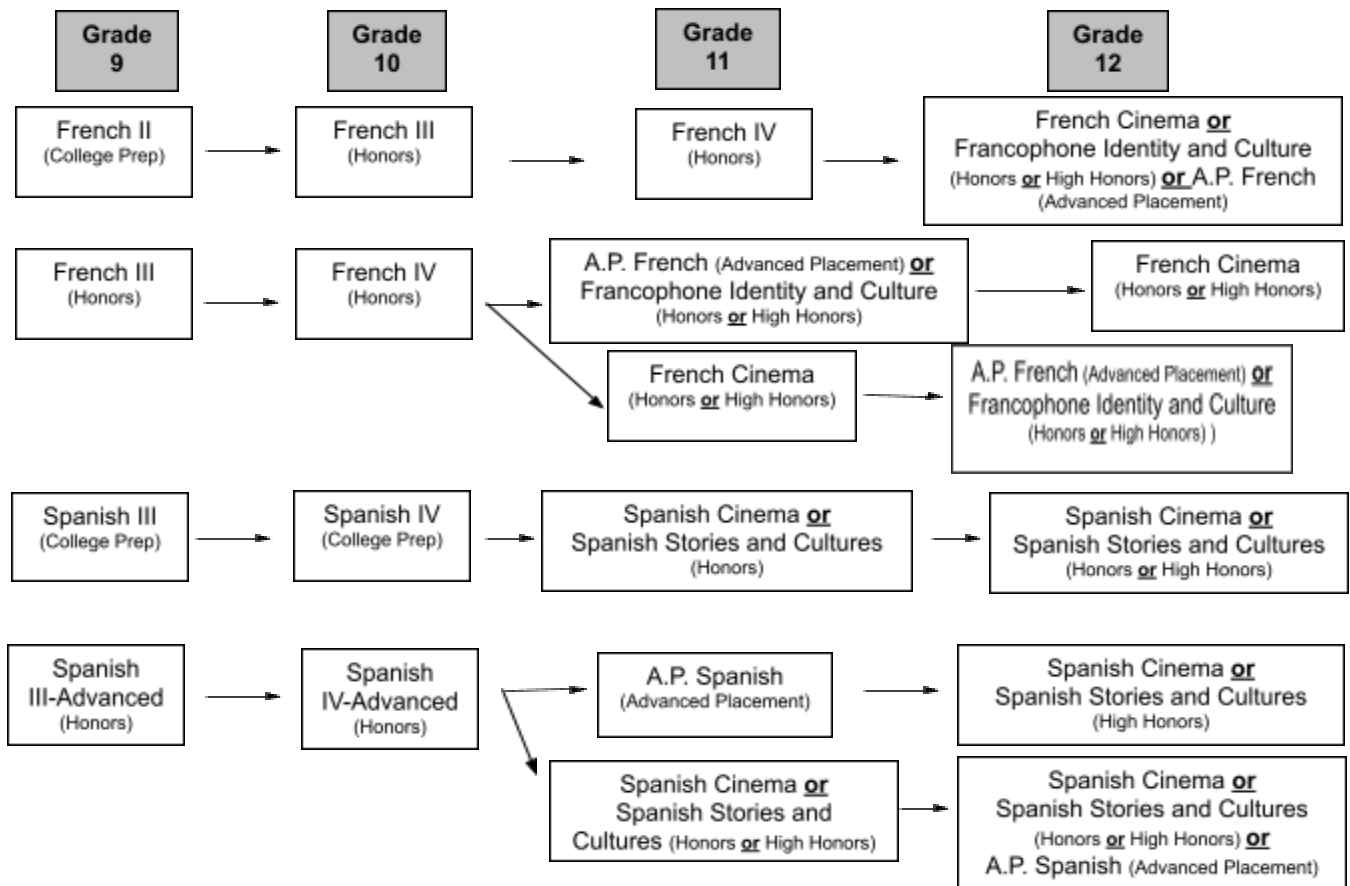
Course Title	Level	Course Number	Grade Level	Semester	# of Periods	Credits
French I	College Prep	4113	9-12	All	4	5
French II	College Prep	4123	9-12	All	4	5
French III	Honors	4134	9-12	All	4	5
French IV	Honors	4144	10-12	All	4	5
French Cinema	Honors High Honors	4154 4155	11-12	All	4	5
Francophone Identity & Culture	Honors High Honors	4164 4165	11-12	All	4	5
AP French - Language	AP	4175	11-12	All	4	5
Spanish I	College Prep	4313	9-12	All	4	5
Spanish II	College Prep	4323	9-12	All	4	5
Spanish III	College Prep	4333	9-12	All	4	5
Spanish III-Advanced	Honors	4334	9-12	All	4	5
Spanish IV	College Prep	4343	10-12	All	4	5
Spanish IV-Advanced	Honors	4344	10-12	All	4	5
Spanish Cinema	Honors High Honors	4354 4355	11-12	All	4	5
Spanish Stories & Cultures	Honors High Honors	4364 4365	11-12	All	4	5
AP Spanish - Language	AP	4375	11-12	All	4	5
Spanish for Native/Heritage Learners I	Honors	4384	9-12	All	4	5
Spanish for Native/Heritage Learners II	Honors	4394	9-12	All	4	5
Latin I	College Prep	4213	9-12	All	4	5
Latin II	College Prep	4223	10-12	All	4	5
Advanced Latin	Honors	4234	10-12	All	4	5
Latin Literature: Prose	Honors	4254	11-12	All	4	5
Latin Literature: Poetry	Honors	4264	11-12	All	4	5

WORLD LANGUAGE COURSE SEQUENCE CHARTS

Students beginning a world language at the high school:



Incoming freshmen with a minimum of three years of French or Spanish:



The World Language Department offers sequences in French, Latin and Spanish. We strongly recommend that students consider their study of language at Bedford High School as a part of a long-term commitment to becoming proficient in at least one language other than English. We believe all students can learn another language and will need to participate in a global society. It is our mission to help them develop their communicative abilities and cultural awareness. In modern language courses, students engage in real-world communication tasks and explore commonalities and differences among global cultures. In classical language courses, students work toward analyzing authentic materials from the ancient world and exploring its impact on our language and world.

World Language courses are designed for students who take them as a second or third language. Native or heritage speakers of French and Spanish who wish to study their own language must submit writing and speaking samples to determine if they would benefit from a course in this language. Students should see the World Language Program Director to complete the writing and speaking tasks before the course registration deadline.

FRENCH

FRENCH I **College Prep** **Course #4113**

This course is designed for those students who have never studied French and who want to begin the study of a second language for the first time. Students will develop the fundamentals of the four linguistic skills of listening, speaking, reading, and writing. Students will also be introduced to various cultural aspects of the Francophone world. Through classroom and laboratory activities, students are exposed to the language and culture. Although no prerequisite skills are required, a willingness to imitate, to role-play, and to participate is essential to developing basic language skills.

FRENCH II **College Prep** **Course #4123**

Prerequisite: French I, or an appropriate score on the diagnostic test and teacher recommendation

Conducted primarily in French, this course will develop the student's ability to communicate in French about everyday situations through classroom and laboratory activities. Students electing French II should have a background in basic listening, speaking, writing, and reading skills in French. These skills will be further developed and strengthened as the student increases his/her vocabulary and knowledge of the French language. Students will continue their study of various aspects of culture in the Francophone world.

FRENCH III **Honors** **Course #4134**

Prerequisite: French II, or an appropriate score on the diagnostic test and teacher recommendation

Conducted in an immersion style, the major goal of this course is to improve the student's ability to understand spoken French and to communicate in French with greater fluency. French III is designed for students who have mastered and internalized fundamental vocabulary and grammar. Students will continue to master more sophisticated vocabulary and grammatical concepts and will be assigned a substantial amount of written work. Students will improve oral, aural, writing, and reading proficiencies through language laboratory work, reading literary excerpts, classroom discussion, and compositions. Students will continue their study of various aspects of culture in the Francophone world.

FRENCH IV **Honors** **Course #4144**

Prerequisite: French III and teacher recommendation

Conducted in an immersion style, this course increases the student's proficiency in French through a thorough review of verb tenses and grammatical structures. Students will also learn several new tenses and idiomatic expressions. French IV is a complete grammatical review coordinated with the development of listening, speaking, writing, and reading skills. Since emphasis is placed on oral communication, perfection of pronunciation, and greater facility in speaking, language use becomes more natural. Students are able to provide spontaneous answers to a variety of situations and sustain conversations in the target language. Literary selections, songs, audio selections, and film will be studied and used for discussions, writing, and cultural study of the Francophone world.

FRENCH CINEMA

**Honors
High Honors**

**Course #4154
Course #4155**

Prerequisite: French IV, Francophone Identity and Culture; or AP French and teacher recommendation

- This course is only offered on school years ending with an odd number (2021, 2023...)
- This course includes some R-rated films. An example list is available in the school website, under the class Syllabi. Students wishing to enroll in this class must submit an *Intent to Enroll & Permission Form* to the program director before completing their class request form.

Conducted in an immersion style, students will learn about the history and culture of French-speaking countries through the medium of film. Students will watch films of the French-speaking world set in North America, Africa, Asia and France. Movies viewed in class will provide a context in history and culture as well as language. In preparation for watching the films, students will study the historical/cultural information that provides the backdrop of the settings of the films. Lessons will require higher-level thinking skills such as expressing opinion, analyzing, predicting, and comparing and contrasting in the target language. Students will continue to master more sophisticated vocabulary and grammatical concepts and will be assigned a substantial amount of written work. Students will improve oral, aural, written, and reading proficiencies.

FRANCOPHONE IDENTITY AND CULTURE

**Honors
High Honors**

**Course #4164
Course #4165**

Prerequisite: French IV or French Cinema, and teacher recommendation

- This course is only offered on school years ending with an even number (2020, 2022...)

This course is offered to students who have completed their study of the major grammatical concepts of the French language and are looking to improve their written and spoken expression of French without intensive grammar review. This course will examine identity development from the perspective of people from many different francophone backgrounds while comparing them to our own cultural and personal identity development. A variety of authentic French texts will be used in this course including short stories, film, poetry, blogs, books and music. Lessons require such higher level thinking skills as expressing opinion, analyzing, predicting, and comparing and contrasting in the target language. Individual and group project work and presentations are emphasized. Language use becomes more natural because students are required to speak only in French and are asked to participate in a variety of oral exercises to increase fluency and spontaneous speech.

AP FRENCH – Language

Advanced Placement

Course #4175

Prerequisite: French IV or French Cinema, and teacher and Program Director recommendations

- This course is only offered on school years ending with an even number (2020, 2022...)
- **THIS IS A COLLEGE LEVEL COURSE**

The AP French Language course is designed as an advanced third-year college level class. Therefore, students are instructed to speak, read, write, and listen to authentic sources in French only. Conducted only in French, this course develops greater fluency in the spoken language and reinforces vocabulary and idiomatic expression. Advanced Placement French prepares students for the A.P. French Language exam, by teaching them to use the three modes of Communication: Interpersonal, Interpretive and Presentational as defined in the Standards for World Languages, while exposing them to a variety of authentic language through French music, films, articles and literature hence emphasizing listening, speaking, reading, and writing skills. Students will read and discuss French literature as well as articles on contemporary issues enhancing the study of the Francophone world. Lessons require such higher level thinking skills as expressing opinion, analyzing, predicting, and comparing and contrasting in the target language. Students will be familiarized with the different cultures of the francophone world.

SPANISH

SPANISH I

College Prep

Course #4313

This course is designed for those students who have never studied Spanish and who want to begin the study of a second language for the first time. Students will develop the fundamentals of the four linguistic skills of listening, speaking, reading, and writing. Students will also be introduced to various cultural aspects of the Spanish-speaking world. Through classroom and laboratory activities, students are exposed to language and culture. Although no

prerequisite skills are required, a willingness to imitate, to role-play, and to participate is essential to developing basic language skills.

SPANISH II **College Prep** **Course #4323**

Prerequisite: Spanish I; or an appropriate score on the diagnostic test and teacher recommendation

Conducted primarily in Spanish, this course will develop the student's ability to communicate in Spanish about everyday situations through classroom and laboratory activities. Students electing Spanish II should have a background in basic listening, speaking, writing, and reading skills in Spanish. These skills will be further developed and strengthened as the student increases his/her vocabulary and knowledge of the Spanish language. Students will continue their study of various aspects of culture in the Spanish-speaking world.

SPANISH III **College Prep** **Course #4333**

Prerequisite: Spanish II, or an appropriate score on the diagnostic test and teacher recommendation

Conducted primarily in Spanish, Spanish III (College Preparatory) is designed for students who have completed two or more years of Spanish and need additional study to master the grammar and vocabulary taught in Spanish II and/or 8th grade Spanish. In this course, students will utilize basic oral and written language skills in an expanded context. Students will continue to improve their ability to comprehend and communicate in Spanish not only through class and laboratory work, but also by further studying grammar, verb structures, vocabulary, and idiomatic expressions. Students will begin to read a variety of literary selections with discussions in Spanish. Students will continue their study of various aspects of culture in the Spanish-speaking world.

SPANISH III-ADVANCED **Honors** **Course #4334**

Prerequisite: Spanish II, or an appropriate score on the diagnostic test and teacher recommendation

Conducted in an immersion style, the major goal of this course is to improve the student's ability to understand spoken Spanish and to communicate in Spanish with greater fluency. Spanish III-Advanced is designed for students who have successfully completed three consecutive years of Spanish and who have mastered and internalized fundamental vocabulary and grammar. Students will continue to master more sophisticated vocabulary and grammatical concepts and will be assigned a substantial amount of written work. Students will improve oral, aural, writing, and reading proficiencies through language laboratory work, reading literary excerpts, classroom discussion, and compositions. Students will continue their study of various aspects of culture in the Spanish-speaking world.

SPANISH IV **College Prep** **Course #4343**

Prerequisite: Spanish III and teacher recommendation

Conducted primarily in Spanish, Spanish IV (College Preparatory) sharpens students' previously learned skills through more complex communication in the language. In this course students will solidly review previously learned concepts, increase cultural understanding of the Spanish-speaking world, and learn more advanced structures and vocabulary. Students will read and discuss various literary selections in the target language. Writing and listening skills will receive close attention through classroom exchanges and laboratory work. Individual and group projects are emphasized.

SPANISH IV-ADVANCED **Honors** **Course #4344**

Prerequisite: Spanish III or Spanish III-Advanced, and teacher recommendation

Conducted in an immersion style, this course increases the student's proficiency in Spanish through a thorough review of verb tenses and grammatical structures. Students will also learn several new tenses and idiomatic expressions. Spanish IV Advanced Honors is a complete grammatical review coordinated with the development of listening, speaking, writing, and reading skills. Since emphasis is placed on oral communication, perfection of pronunciation, and greater facility in speaking, language use becomes more natural. Students are able to provide spontaneous answers to a variety of situations and sustain conversations in the target language. Literary selections, songs, audio selections, and film will be studied and used for discussions, writing, and cultural study of the Spanish-speaking world.

their coursework, students will develop accuracy and appropriate register for professional situations and improve oral communication and writing skills, with strong emphasis in vocabulary enrichment and spelling. Students may complete one or both courses in this sequence based on their proficiency level, interest and year of graduation.

LATIN

LATIN I **College Prep** **Course #4213**

Prerequisite: None

This course awakens an interest and an appreciation of Roman culture, and increases the student’s verbal and grammatical skills through the study of the Latin language. Students will develop the ability to read, comprehend, and write basic Latin sentences. No prerequisite skills are required.

LATIN II **College Prep** **Course #4223**

Prerequisite: Latin I and teacher recommendation

The second year of Latin reviews basic grammatical structures learned in Latin I, adds more complicated grammar and reading materials, and expands the students’ knowledge of the history and culture of the ancient world. The students will reinforce and develop reading and writing skills as they increase their knowledge of vocabulary and Latin grammar.

ADVANCED LATIN **Honors** **Course #4234**

Prerequisite: Latin I or Latin II, and teacher recommendation

This course explores the major advanced grammatical topics in the Latin language in depth, while exposing the students to more challenging reading materials and expanding their knowledge of the history and culture of the ancient world. The students will improve their reading and writing skills in order to transition by the end of the year from reading textbook selections to reading authentic Latin literature.

LATIN LITERATURE: PROSE **Honors** **Course #4254**

Prerequisite: Advanced Latin or Latin Literature: Poetry, and teacher recommendation

- This course is only offered on school years ending with an odd number (2021, 2023...)

This course is designed to develop reading ability in the target language and increase understanding and appreciation of Classical literature, culture, and history, with an emphasis on the civil war period and the end of the Roman Republic. Students read and discuss selections from the works of Caesar, Sallust, and Cicero. Through these texts, selected grammar topics and vocabulary are also introduced and reinforced.

LATIN LITERATURE: POETRY **Honors** **Course #4264**

Prerequisite: Advanced Latin or Latin Literature: Prose, and teacher recommendation

- This course is only offered on school years ending with an even number (2020, 2022...)

This course is designed to develop reading ability in the target language and to increase understanding and appreciation of Classical literature, history, and culture, with an emphasis on Roman epic and lyric poetry. Students read and discuss selections from the works of Catullus, Ovid, and Vergil. Through these texts, selected grammar topics and vocabulary are also introduced and reinforced.

OTHER

WORLD LANGUAGE INTERN **Course #4401**

Prerequisite: Grade 12 and Program Director Approval

All interns must be approved by the World Language Program Director and will be assigned to a-world language teacher based on need.

ADDITIONAL COURSE OFFERINGS

LEARNING CENTER

Pass / Fail 2.5 / 5 Credits

Prerequisite: Administrative Approval or as determined by individualized plan

Learning Center is an individualized support class designed to meet students' individual academic needs. Skills instruction can include, but is not limited to, organization and study skills, written expression skills, reading comprehension skills and math problem solving.

LIBRARY INTERN

Pass / Fail 2.5 Credits

Course #07501

Prerequisite: Interview with librarian and approval

This course is a hands-on application of library and makerspace operations in a school setting. Students will complete and maintain ongoing projects related to the Fab Lab (makerspace), including 3D printer, vinyl cutter, and audio visual equipment. Interns in this program will support students and staff on using and troubleshooting makerspace technology. In addition to technology, Interns will support the librarian in promoting the library through social media and other outreach, encouraging student engagement in the library, and helping to maintain a creative and inspiring space. Application for this course *requires* an interview. Background in 3D printing, design software, and Google Drive applications is preferred.

TECHNOLOGY INTERN

Pass / Fail 2.5 Credits

Course #2901

Prerequisite: Program administrator approval

This course trains students to work in the iPad Support Center. Technology Interns will provide iPad assistance to Bedford High School students, teachers and administrators. They will troubleshoot technical issues and provide training for effective use of the iPad, including iPad management and educational uses of specific apps. Technology Interns will also assist with the creation of a digital library that will house a variety of technology resources.

SENIOR CULMINATING PROJECT

If you want to invent and construct your own musical instrument, write and produce a film or play, design and show your own line of clothing, study how sports mirror the broader society, or work on any sort of project that challenges you to apply what you already know even as you expand your knowledge and repertoire of skills, Senior Culminating Project may be for you. This course is designed for students who wish to define and explore a new area of interest, or extend another class or extracurricular project, and who have the maturity and motivation to handle college level independence.

During the first quarter of the year, students will complete various reading and writing assignments, as well as individually check in and work with the teacher to develop the essential questions that will guide their individual work. During this time, students will zero in on specific information they hope to learn and how to structure the year ahead. After the first quarter, students will take on increased responsibility for using their class time productively and more independently. Upon obtaining parent permission, students may use their Senior Project periods to work outside of school if the student and teacher deem this useful and appropriate. Students are required to contact professionals in their field of interest to broaden their understanding, and are strongly encouraged to use hands-on experiences and internships to support their learning.

Throughout the year, the class will communicate via online forums to share progress and ideas. In May, students will be expected to present their findings to an audience of their peers. Each 15-20 minute presentation will communicate a rationale for the student's topic, the process behind their work, what the student learned, and will also include some sort of tangible product. Students interested in this course must schedule an advisory meeting with the Program Director in June prior to their senior year; students are expected to attend this meeting ready to

discuss a tentative idea. Students may piece together this course as a minor or major during any blocks that are convenient to their schedule.

(Offered for both 2.5 and 5 Credits)

Minor

Major

College Prep

College Prep

Course #6033

Course #6043