



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies



# 2021 - 2022 Program of Studies



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

We welcome any opportunity to be of service to the parents and guardians of our students. Do not hesitate to contact members of your high school administrative team regarding any educational concern you may have.

## DHS Main Office

**978-777-8925**

Mr. Adam Federico, Principal  
Mr. Sean Emberley, Assistant Principal  
Mr. Peter DiMauro, Assistant Principal

## Guidance Department

**978-777-8928**

Ms. Amanda Magnan  
Ms. Cheryl Mastrogiovanni  
Ms. Susan Shawn  
Mr. James Sullivan

## Curriculum Center

**978-777-8925**

Dr. Amy Gerade  
Director of High School Curriculum

## Student Services

**978-777-6112**

Dr. Mary Tatem  
Director of Student Services

## Danvers Public Schools Central Office

**978-777-4539**

Dr. Lisa Dana, Superintendent of Schools  
Ms. Mary Wermers, Assistant Superintendent of Teaching and Learning  
Mr. Keith Taverna, Assistant Superintendent of Finance and Personnel

## Danvers Public Schools - School Committee

Ms. David Thomson, Chairperson	978-774-1669
Mr. Eric Crane, Secretary	978-777-8158
Mr. Arthur Skarmeas	978-774-2661
Ms. Mary Beth Verry	978-750-4792
Mr. Jeff Kay	978-777-6258



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## TABLE OF CONTENTS

Introduction	4
Danvers Public Schools Mission Statement	5
Danvers HighSchool’s Core Values and Learning Expectations	5
Guidance Services	5
Social and Emotional Support	6
Graduation Requirements	6
Community Service Requirement	7
Senior Internship/Capstone	8
Scheduling Policy	8
Course Classifications	8
Weighting/Grade PointAverage	9
Criteria for Honors Enrollment/Student Placement Policy	10
Transfer Policy	11
Foreign Exchange Student Policy	11
Independent Study	11
Advanced Placement	11
Honor Roll Criteria	12
Dual Enrollment Program	12
Seal of Biliteracy	13
Massachusetts College & University Standards	13
Homework Requests	14
Tutorial Policy	14
Ninth and Tenth Grade Teams	15
Title IX and Chapter 622	15
Students’ Rights	16
Summer School	16
Credit Recovery Program	
<b>COURSE OFFERINGS</b>	
English	17
Social Studies	23
Science	29
Math	38
World Languages	44
Applied Technology Education	48



# DANVERS HIGH SCHOOL

## 2021-2022 Program of Studies

Engineering Technology	49
Computer Technology	52
Business	53
Communications Technology - Television	56
Visual Art	55
Music	61
Special Education Services	63
Wellness	68
D.R.I.V.E Program	72
Early College Pathway	73
Senior Programming	74

Dear Students and Parents,

You are about to begin the process of course selection for the 2021-2022 school year. As you do this, you should be aware of the significance of the decisions you are making. Since the choices you make now create the master schedule, you are encouraged to select those courses that meet your educational goals and reflect your personal needs. Every effort will be made during the scheduling process to accommodate your individual selections so all the choices you make should be carefully considered in relationship to your educational plan.

At the beginning of your high school career, you should formulate a plan that will serve as a guide to the courses you select over the next four years. You should access all of the resources available during the decision-making process including parents, teachers, and counselors. The Program of Studies will provide you with course descriptions, graduation requirements, and program sequences.

We recommend that you use the following procedure to ensure that you have made the best possible choices and have developed an appropriate academic program:

- Teachers will discuss curricular levels and electives and make recommendations.
- Parents and students should read the Program of Studies and discuss choices.
- Students should review graduation requirements and post-secondary plans with their guidance counselors.
- Students should sign up for a full program--35 credits (except where students participate in student assistantships and earn 32.5 total credits)--and list 4 electives in priority order. Attempts will be made to honor elective requests; however, the complexity of the



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

schedule and over or under subscription to courses may impact students' original choices.

Curriculum development and assessment is ongoing as Danvers High School examines its academic program and course outcomes. The major goal of the school is to engage students in an exciting and active learning environment. We encourage all students and staff to maximize potential, hold high expectations and standards, and present a challenging experience at all levels.

## **Danvers Public Schools A Community of Learners**

The children of Danvers, their teachers and support staff, and the administration make up the community of learners of the Danvers Public Schools. The system has five elementary schools, a middle school, and a high school. All of the work of this community of learners is driven by its four core values:

Caring...  
Quality...

Commitment...  
Collaboration...

## **Danvers Public Schools Mission Statement**

Danvers Public Schools is a dynamic community of independent learners dedicated to respect, responsibility, creativity and the pursuit of academic and personal excellence.

## **Danvers High School Core Values**

Danvers High School is a community of independent learners dedicated to respect, responsibility, creativity, and the pursuit of academic excellence.

## **Danvers High School Learning Expectations**

1. Students will communicate effectively through writing, speaking, and other mediums.
2. Students will use appropriate strategies in order to achieve effective reading



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

comprehension.

3. Students will be critical thinkers who locate, analyze, evaluate, and synthesize information.
4. Students will demonstrate creativity.
5. Students will understand how to use technology effectively and appropriately.
6. Students will demonstrate knowledge of behaviors that affect the health and safety of themselves and others.
7. Students will become knowledgeable of the needs of others through community service.
8. Students will work independently and collaboratively to accomplish goals.
9. Students, as members of a global community, will demonstrate an understanding of diverse cultures.

## **Guidance Services**

Counseling services at Danvers High School are geared to the individual student. Counselors work with students and parents on developmental issues, academic planning, course selection, personal issues, transition concerns, and the career/college search process. Counselors assist students to help them achieve their academic potential, while encouraging social and extracurricular experiences that provide opportunities for personal growth. Each year, counselors meet with their assigned students, in small groups and on an individual basis as needed, while collaborating with teachers and administrators regarding student progress. In the spring semester, counselors meet individually with students to select challenging courses for the upcoming school year. Maintaining good grades and an appropriate level of rigor in course selection is emphasized. Group meetings for parents include college-planning night for parents of juniors as well as financial aid night for parents of seniors.

The Guidance Department utilizes *Family Connection* on Naviance. Naviance is a web-based planning and advising tool counselors use to instruct students on matters involving career and college research. Freshman orientation meetings focus on transitioning to the high school, goal setting, and involvement in school and community activities. Each student is given a Naviance account access code and completes the Do What You Are personality profiler, which provides students with career information. Sophomore groups focus on PSATs and Career Inventories. Sophomores are exposed to careers and majors which best match their interests and goals. Junior groups focus on PSATs, SATs, and ACTs. Juniors begin their college search, visit colleges, continue post-secondary planning, and develop resumes. Counselors help juniors develop a list of appropriate colleges or career training options and discuss acquiring teacher recommendation letters. Seniors work with counselors in groups and on an individual basis to focus on matching their needs and interests to colleges and careers, which are a good “fit.” Students and parents are guided step by step through the college application process. College admissions representatives schedule meetings at DHS with students in order to discuss their requirements and review admissions criteria. These visits



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

occur in the fall, and juniors and seniors sign up on Naviance.

We also are implementing the MyCAP (My Career and Academic Plan) program beginning with the Class of 2023. MyCAP is a DESE sponsored advising program where students create their own college and career plans.

## **Social and Emotional Support**

When a student is in need of additional support, our school social workers may be of assistance. If a student is interested in services from a social worker, the guidance counselor can make a referral, or the social worker may be contacted directly by the student or parent/guardian. The social workers provide crisis intervention, individual and group counseling, as well as consultation and support services to students, families, and professionals in the Danvers High School Community. They make referrals for clinical services in the community and serve as liaisons to community agencies and private therapists. DHS also has a Therapeutic Learning Center (TLC) for students who will benefit from additional social and emotional support.

## **Class of 2022 Graduation Requirements**

<b><u>SUBJECT</u></b>	<b><u>CREDITS</u></b>
English	20
Social Studies	20
Science	20
Mathematics	20
World Language	10
Fine Arts <sup>1</sup>	2.5
Computer Literacy	2.5
Technology	2.5
Health	5
Physical Education <sup>2</sup>	10
Electives	12.5
<b>Total</b>	<b>125</b>

<sup>1</sup> Courses may be selected from all art and music courses.

<sup>2</sup> Students may petition to participate in the alternate physical education program in grades 11 and 12. (See physical education section for details.)

\*Students must also complete 40 hours of community service and a Senior Internship, Capstone Project or Independent Study to graduate.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## Classes of 2023-2024 and Beyond Graduation Requirements

<u>SUBJECT</u>	<u>CREDITS</u>
English	20
Social Studies	20
Science	20
Mathematics	20
World Languages	10
Fine Arts <sup>1</sup>	5
Technology & Engineering <sup>2</sup>	5
Physical Education <sup>3</sup>	5
Electives/Pathways	15
<b>Total</b>	<b>125</b>

<sup>1</sup> Courses may be selected from all art and music courses.

<sup>2</sup> Computer Science courses can be counted towards this requirement

<sup>3</sup> Students may petition to participate in the alternate physical education program in grades 11 and 12. (See physical education section for details.)

\*Students must also complete 40 hours of community service and a Senior Internship, Capstone Project or Independent Study to graduate.

All students should be fully scheduled (unless special circumstances exist) carrying between 32.5 and 35 credits. Students should have earned 35 credits at the end of grade 9, 70 credits at the end of grade 10, and 105 credits at the end of grade 11. Seniors must earn no fewer than 25 credits during their senior year to qualify for graduation.

### **Community Service Requirement**

Danvers High School values learning that extends beyond the classroom. By investing themselves in community service, students extend the learning environment, enhance personal growth, and contribute to their community.

Students are required to complete forty (40) hours of community service as part of their graduation requirement from Danvers High School. Students are encouraged to complete a minimum of ten (10) hours per year and to complete the requirement by the end of the junior year. Community service must take place in an approved setting, which includes volunteer service for a non-profit or benevolent organization/activity within the community, school, or religious affiliation of the student's choice.

**A. Community Service Requirement:** Danvers High School students will complete a



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

minimum of forty (40) hours of community service as a graduation requirement. This experience can serve as a foundation for senior internship placement, and should be aligned to their career and college interests when possible.

## **B. Learning Objectives for the Service Requirement**

1. The student will develop knowledge, skills, and attitudes to enhance personal growth.
2. The student will develop social skills that are necessary for effectively relating to others in society.
3. The student will recognize and understand a variety of characteristics and actions of effective, dedicated, and responsible citizens.
4. The student will develop cognitive skills necessary to enhance academic learning and acquire higher level thinking skills.
5. The student will understand skills related to positive work experience and work ethic.
6. The student will practice and apply general and industry-specific skills related to their own college and career goals.

## **Senior Internship, Capstone or Independent Project Requirement**

All seniors must complete a 100 hour or more internship, capstone project or independent study as a graduation requirement. Seniors complete the internship, capstone or independent study during the 4th quarter of their senior year (3rd quarter grades count for both the 3rd and 4th quarter grades in calculating a student's final grade senior year).

## **Scheduling Policy**

In offering electives, the high school administration will establish a certain number of sections for each elective. Once these sections have been filled during the scheduling process, no more enrollments will be accepted. When this occurs, students will be enrolled in available alternate choice electives. Upperclassmen, in descending order, will be given first preference in the selection of electives.

## **Course Classifications - Grades 9, 10, 11 & 12**

Danvers High School offers an equal educational opportunity to all students while recognizing individual differences. The school accommodates the unique skills, talents, learning styles, and needs of students by differentiating instruction to the greatest extent possible. All core courses are challenging and offered on two levels—honors and college preparatory. AP courses are also offered to juniors and seniors. Elective courses provide students the opportunity to pursue an area of interest. Students can contract for honors level credit in many elective areas.

## **Advanced Placement**

The curriculum presented is equivalent in scope and depth to a college level course. Students must fulfill the requirements stated in the AP section of this document.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **Honors**

This curriculum is highly motivating for students who have demonstrated outstanding academic ability and achievement in previous courses. The criteria for placement in honors courses follows in this section.

## **College Preparatory**

This curriculum prepares students to meet the demands of colleges and universities. Students who have demonstrated good academic ability and achievement will be challenged to complete rigorous assignments in each subject area.

## **Electives**

Elective courses challenge both college-bound students and students planning to enter the work force immediately after high school. Electives serve a variety of interests and often combine academic challenges with hands-on experiences. Students may contract for honors level credit in many elective areas.

## **Weighting/Grade Point Average**

The college admissions process relies on an evaluation of a variety of criteria that may include a student's SAT/ACT scores, interview, grade point average (GPA), rank in class, and profile of co-curricular activities. Although all courses offered at Danvers High School are rigorous and hold students to high standards, additional weight is given to AP and honors courses.

The weighted grade point average is used to determine rank-in-class and National Honor Society eligibility. However, students' actual grades (non-weighted) appear on their report cards and transcripts and are used to determine honor roll eligibility. Points are added only to grades earned from 70 to 100. The weighting system applies as follows:

- 10% of the grade earned for advanced placement and accelerated courses.
- 5% of the grade earned for honors courses.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

The following chart is used to report a student's academic progress and grade point average (GPA). This scale is the most commonly aligned to the college scale. Letter grades are used to report a student's academic progress and GPA while actual numerical grades are used to finalize rank in class. The transcript will reflect both a numerical weighted GPA and an unweighted GPA based on the college scale.

GRADING					
Numerical Grade	Letter Grade	GPA	Numerical Grade	Letter Grade	GPA
97–100	A+	4.0	77–79	C+	2.33
93–96	A	3.84	73–76	C	2.0
90–92	A-	3.67	70–72	C-	1.67
87–89	B+	3.33	67–69	D+	1.33
83–86	B	3.0	65–66	D	1.0
80–82	B-	2.67	0–64	F	0

## Criteria for Enrollment In Honors Courses - Grade 9

To qualify a student must have

1. A- in content area
2. Teacher recommendation

## Criteria for Enrollment In Honors Courses - Grades 10, 11, & 12

1. A student must attain an 80 average in the content area from an honors course in the previous school year and receive a teacher recommendation.
2. A student must attain a 90 average in the content area from a college preparatory course in the previous school year and receive a teacher recommendation.
3. A teacher may recommend a student who has not met the numerical average requirements listed



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

above.

4. A student may seek placement in an honors course by following the petition process.

Teacher recommendations may be based on a number of factors, including but not limited to performance on the midterm and final exams, performance on regular tests and quizzes, and the degree of difficulty of the course being selected.

### **Student Placement Policy Grades 9-12**

The Danvers Public Schools recognize and value each child's uniqueness and their responsibility to ensure the success of each student. This responsibility includes student placement. Based on the joint recommendations of teachers and guidance counselors, as well as input from students and families, students are placed in curricular levels and electives. The integrity of the school's recommendations and rigor of curricular challenge must be maintained; therefore, the school will not consider requests for specific teachers. However, should the learning needs of a child necessitate explanation or clarification, a letter from the parent or guardian discussing such needs may be addressed to the principal. A response from the school to the parents will be provided in a timely and reasonable manner. Should parents or guardians disagree with teacher recommendations and the reasons offered for placement of their child, they can prepare a written request in which they must present their reason and evidence for reconsideration. This request will be reviewed and will be granted or denied by the principal.

To maintain equity in teaching loads and to avoid student schedule changes at the beginning of the school year, students must finalize their schedule by June of the prior academic year. Students will not be permitted to add/drop a course after the second full week of school. If it becomes necessary to change a class during the school year, students must appeal to the principal and meet deadlines set by the guidance department.

### **Transfer Policy**

1. For students who transfer to Danvers High with a "college prep" course designation, college prep weight will be assigned to the course.
2. If the sending school has more than one college level designation and "honors" level work is indicated, honors weight will be assigned to the course.
3. All courses not designated honors will not be weighted.
4. To attain a rank of 1, 2, or 3 in a class, the transfer student must be enrolled as a full-time student during grades 11 and 12.

### **Foreign Exchange Student Policy**

Exchange students will be given a pass/fail grade in all courses. If an exchange student wishes to receive a letter grade, he/she must meet all of the requirements of the course.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **Independent Study**

Opportunity for independent study will be available for students to pursue areas of special interest in depth. Students chosen for independent study will undergo a program more flexible than the usual class schedule.

(a) Students involved must be recommended by a guidance counselor and a qualified, available teacher of the subject area with the approval of the principal.

(b) Students may select only one independent study program per semester. The topic selected must fall within the curriculum for a course regularly offered by a department.

(c) Ordinarily, students will be limited to two independent study programs in one subject area.

## **Advanced Placement Policy**

Courses identified by the initials AP are courses designed to enrich the programs of students who are ready to experience college level work while still within the high school program. These courses are very demanding. Students and parents alike must realize that an above-average investment of time and energy are the prerequisites necessary for success.

To obtain AP credit, students must take the AP Exam at the end of the course. Students who do not take the AP Exam will receive honors credit. These examinations are under the control of the College Board Testing Bureau at Princeton, New Jersey. Successful students may obtain credit, advanced standing, or both with the colleges of the students' choice. The individual colleges grant this credit. Students are cautioned that requirements vary among colleges, and they must check catalogs for AP program details.

In addition, all students must sign a parent/student contract, which is a commitment to the class, summer work, and the AP exam. All students must consider the rigor and challenge of each individual course before selecting any AP course.

## **Honor Roll Criteria**

Highest Honors: all A's or all 90's and above

High Honors: all A's and B's or all 80's, 90's and above

Honors: A's, B's, one C or one 70 and above

The Danvers High School Honor Roll is an unweighted honor roll. The actual grade a student receives is the grade used to calculate honor roll.

## **Dual Enrollment Program**

The Dual Enrollment Program provides an opportunity for high school students to take credit courses at North Shore Community College or Salem State University. Students who enroll are able to complete part of or all of their remaining high school requirements while simultaneously earning college credit. The completed college-level, credit course(s) may be eligible to be applied toward a future degree.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Participation in the Dual Enrollment Program and any subsequent course selection(s) requires the approval of the high school and the Dual Enrollment Program Coordinator. Eligible Dual Enrollment Program students usually take courses for the following reason(s):

- Students are interested in taking college-level courses to complete remaining high school requirements (these courses may also be applicable toward a future degree).
- Students are in need of make-up credit for a course they have failed at the high school.
- Students are interested in taking college-level courses for enrichment.

Dual Enrollment Program students are mainstreamed into the college student population. At NSCC, students can avail themselves of services such as tutoring, advising, counseling, and use of the computer lab and the Learning Resource Center (Library).

### ***Application/Registration Process and Financial Information***

Interested students should see their guidance counselor to determine appropriate course placement and review application procedures for each institution. Students and/or parents are typically responsible for the costs of tuition, fees, and books. Limited funding may be available directly through the college.

### **Seal of Biliteracy**

The Commonwealth of Massachusetts is offering the *Seal of Biliteracy* to be awarded to any student who has demonstrated proficiency in English and at least one other world language by high school graduation. As other states have recognized, the language skills of students who complete advanced levels of world language study as well as those whose native language is other than English, increase their marketability in the workplace and are a valuable resource to the Commonwealth.

In order to be eligible for the *Seal of Biliteracy*, students must achieve the following:

- A score of 472 (Class of 2022 and beyond) on the Grade 10 ELA MCAS

OR



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

- Successful completion of the English Language requirement on their Educational Proficiency Plan for those students who score between 455 and 471 (Class of 2022 and beyond) on the Grade 10 ELA MCAS **AND**
- A score of intermediate-high on the ACTFL Assessment of Performance toward Proficiency in Languages (AAPPL)

Students in AP level World Language courses will take the assessment around the time of midterms, other students whose native language is not English or pursue language study outside of the school day are also eligible.

## Minimum Admissions Standards for the Massachusetts State Colleges & Universities

### **Freshman Applicants**

The admissions standards for freshman applicants have two parts:

1. seventeen (17) required academic courses; and
2. a minimum grade point average (GPA) earned in those required courses.

### **Academic Course Requirement**

- Seventeen college preparatory courses distributed as follows are required. (A course is equivalent to one full year of study.)
- English: 4 courses
- Mathematics: 4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics during the final year of high school
- Sciences: 3 courses (drawn from Natural Science and/or Physical Science and/or Technology/Engineering) including 3 courses with laboratory work.
- Social Sciences: 2 courses (including 1 course in U.S. History)
- Foreign Languages: 2 courses (in a single language)
- Electives: 2 courses (from the above subjects or from the Arts and Humanities or Computer Sciences)

### **Minimum Grade Point Average (GPA)**

- The new minimum GPA, calculated at the end of the seventh semester, must be achieved in the required academic courses completed at the time of application and should be weighted for accelerated (Honors, AP, etc.) courses. The minimum GPA requirement at both state colleges and universities is a 3.0.
- If a student's GPA falls below the minimum required, the following sliding scales will apply. The scales should be used only when a student's GPA falls below the minimum



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

required.

The following scale applies to the UMass campuses:

GPA	SAT-CR & Math	ACT
2.51-2.99	950	20
2.41-2.50	990	21
2.31-2.40	1030	22
2.21-2.30	1070	23
2.11-2.20	1110	24
2.00-2.10	1150	25

The following scale applies to the other State Universities:

GPA	SAT-CR & Math	ACT
2.51-2.99	920	19
2.41-2.50	960	20
2.31-2.40	1000	21
2.21-2.30	1040	22
2.11-2.20	1080	23
2.00-2.10	1120	24

## Homework Requests

### **Student Absence from School**

When a student is expected to be absent for three or more days, parents should request by 9:00 a.m. homework assignments from the guidance office. Parents can pick up assignments no earlier than 2:00 p.m. on the afternoon following the request.

### **Tutoring Policy - Extended Absence**

In the event that a student is expected to be absent for more than 14 school days for medical reasons, the student may be eligible to receive home tutoring. Parents should contact their child's guidance counselor. Medical documentation will be required.

### **Ninth and Tenth Grade Teams**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

The goal of the ninth grade team program is to provide ninth grade students with the additional support, skills, and confidence necessary to complete a successful high school experience. Specific goals of the program include:

1. Support and maintain a smooth transition from the middle school to the high school as well as offer a comprehensive and ongoing orientation.
2. Implement and expand the reading and writing program in all curricular areas to reinforce reading and writing skills.
3. Identify any “at risk” students by developing accurate student profiles, determining appropriate placement, and reviewing and monitoring student progress regularly.
4. Develop close and consistent communication among team teachers, guidance, administration, and home.
5. Actively involve parents in the education of their child.
6. Reinforce the readiness concept.
7. Provide for intellectual, social, physical, and emotional well-being of the student.
8. Foster respect for self, peers, and adults and instill the value of personal and community property.
9. Periodically assess the ninth grade teams program to make additions, modifications, and/or deletions.
10. Teach study and organizational skills.
11. Emphasize homework as an essential part of the learning process.
12. Introduce career awareness and exploration.
13. Provide a structured and supportive environment where the student can succeed. Develop consistency.
14. Reflect upon practice.
15. Discuss student work.

Teams of teachers will work together to monitor student academic, social, emotional, and behavioral progress. The major advantages of this teaming are:

1. A consistent team of teachers will work with the same group of students, allowing students and teachers to get to know each other better;
2. Teachers are given the opportunity to work collegially as a team to support students;
3. Teachers have the opportunity to develop a more integrated curriculum; and Teachers are empowered by gaining more decision-making control and responsibility.

## **Title IX and Chapter 622**

It is the policy of the Danvers Public Schools not to discriminate on the basis of sex, sexual orientation, pregnancy, race, religion, color, and national origin in its educational programs and activities as required by Title IX of the 1972 Education Amendments and Chapter 622 of the Acts of 1971. Students who have questions regarding their civil rights should see Mr.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Keith Taverna, Civil Rights Coordinator.

## Students' Rights

The Danvers School System subscribes to and safeguards the laws, regulations and guidelines pertaining to Students' Rights, under those chapters concerning themselves with suspension and exclusion from public schools and under Chapter 71, Section 34D and 34F which concern themselves with students' rights pertaining to students' records. The suspension procedures of the Danvers Public School System are matters of school committee policy as listed in the Policy Handbook and have been judged consistent with the laws of the Commonwealth.

## Summer School

A summer program may be operated by the Danvers Public School System, and its purpose is to enable those students who have failed courses during the school year to establish credit for the same through summer study.

To be eligible for participation in the summer program, a prospective enrollee must be entering grades seven through twelve in September following the summer session.

Students seeking to establish credit for summer study must satisfy the following requirements:

1. A grade between 60 and 64 earned during the regular school year is an automatic recommendation into summer school.
2. Students with a grade below 60 must have the recommendation of the teacher whose course the student failed. In the case where the student has not been recommended by the teacher, the parent may appeal to the principal.
3. A perfect attendance record during the summer session must be maintained in order to receive credit. If an extenuating circumstance occurs, an appeal can be made to the building principal for their approval.
4. The student must be recommended for credit by his summer school teacher.
5. Students must receive a grade no lower than a C- to pass.
6. The recommendation for credit is accepted by the principal of the school granting such credit.
7. A mandatory homework policy is applicable, and acceptable conduct must be displayed at all times.

**NOTE:** Students who fail English courses may not take more than one English class per year in 9th, 10th, or 11th grade. Any student who fails 9th, 10th, or 11th grade English may make up credits in summer school if the above criteria are met.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## Credit Recovery Program

Danvers High School offers a credit recovery program to help students who have failed multiple classes to graduate on time. Students take online courses designed to assess their prior knowledge and to provide targeted instruction to ensure mastery of core content and skills. Guidance counselors will recommend placement in specific courses

## ENGLISH

The purpose of the Danvers High School English Language Arts program is to help students become more effective readers, writers, and critical thinkers. Students analyze texts that represent a variety of genres including fiction, drama, poetry, and non-fiction. Through a workshop writing approach, students plan, compose, revise, edit, and share their writing. The English department provides students with learning experiences to achieve the following school-wide expectations: students will communicate effectively through writing, speaking, and other mediums; students will use appropriate strategies in order to achieve effective reading comprehension; and students will work independently and collaboratively to accomplish goals.

**Recommended Sequence of Study**

	HONORS/AP		COLLEGE PREP	ESL	FUNDAMENTALS
<b>Freshman Year</b>	111 English H		112 English CP	114 ESL	119 English Fundamentals
<b>Sophomore Year</b>	121 English H		122 English CP	124 ESL	129 English Fundamentals
<b>Junior Year</b>	180 A.P English Language	131 English H 167 American Studies	132 English CP 167 American Studies	134 ESL	139 English Fundamentals
<b>Senior Year</b>	181 AP English Literature	English Elective	English Elective	144 ESL	149 English Fundamentals

### **111 ENGLISH 9 (H)**

**Level: Honors**

**Credits: 5.0**

**Grade Level: 9**

**Prerequisites: None**

**Fulfills: English Requirement**

The purpose of this course is to help students become more effective readers and writers who explore universal human experiences as reflected in various literary genres. This course investigates the main elements of language and communication through expository, narrative, and argument writing. Using a workshop approach to reading and writing, students will adhere to daily routines of independent reading and journal writing. At the honors level, students will exhibit greater independence.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **112 ENGLISH 9 (CP)**

**Level: College Prep**

**Credits: 5.0**

The purpose of this course is to help students become effective readers and writers who explore universal human experiences as reflected in various literary genres. This course investigates the main elements of language and communication through expository, narrative, and argument writing. Using a workshop approach to reading and writing, students will adhere to daily routines of independent reading and journal writing.

**Grade Level: 9**

**Prerequisites: None**

**Fulfills: English Requirement**

## **114 ENGLISH AS A SECOND LANGUAGE**

**Level: Unleveled**

**Credits: 5.0**

This course is designed for Entering to Developing English Language Learners (WIDA Levels 1 through 3). After referral, each student's English proficiency is assessed using formal and informal measures. Annual reassessment of skills occurs for each student. The purpose of ESL classes is to build facility with students' reading, writing, listening, and speaking skills. Lessons are based on the WIDA and Common Core frameworks. This class is taken in lieu of the grade level English class.

**Grade Level: 9**

**Prerequisites: Qualifying Test Results**

**Fulfills: English Requirement**

## **119 ENGLISH FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

This course is designed for students with significant weakness in reading fluency, reading comprehension, spelling, vocabulary, and written expression. Individualized instruction involves a multi-sensory approach, slower pace, and consistent review of information. Strategies are designed to enable students to improve communication skills.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: English Requirement**

## **121 ENGLISH 10 (H)**

**Level: Honors**

**Credits: 5.0**

The focus of this course is the continued development of each student as a critical reader, writer, and thinker. Through the close reading of literary works organized around common themes, students will examine the connection between a writer's purpose, form, and content. Genres addressed include the novel, poetry, and drama. Conventions, including sentence structure and mechanics, will also be examined as tools for clear and understandable written communication. Students will be responsible for long-term and short-term supplementary reading assignments and will develop research skills through a unit devoted to rhetoric. Honors courses move at a faster pace and require more independent work than do College Preparatory courses.

**Grade Level: 10**

**Prerequisites: English 9**

**Fulfills: English Requirement**

## **122 ENGLISH 10 (CP)**

**Level: College Prep**

**Credits: 5.0**

The focus of this course is the continued development of each student as a critical reader, writer, and thinker. Through the close reading of literary works organized around common themes, students will examine the connection between a writer's purpose, form, and content. Genres addressed include the novel, poetry, and drama. Conventions, including sentence structure and mechanics, will also be examined as tools for clear and understandable written communication. Students will be responsible for long-term and short-term

**Grade Level: 10**

**Prerequisites: English 9**

**Fulfills: English Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

supplementary reading assignments and will develop research skills through a unit devoted to rhetoric.

## **184/184H AMERICAN STUDIES I (CP or H)**

**Level: College Prep, Contract for Honors**

**Credits: 10.0 (English and SS)**

This interdisciplinary course blends historical context from precolonial history to World War I with contemporary connections in literature. Students will explore historical themes through critical thinking, research, and close analysis of literature, philosophy, film, historical documents, art, and music in order to understand what it means to be an American. This course is co-taught by an English and a history teacher and will satisfy both sophomore-level English and history courses through a double-block schedule. Though this class is unlevleled, students will have the option to contract for honors.

**Grade Level: 10**

**Prerequisites: ELA 9 and World Hist.**

**Fulfills: English and SS Requirement**

## **124 ENGLISH AS A SECOND LANGUAGE**

**Level: Unlevleled**

**Credits: 5.0**

This course is designed for Entering to Developing English Language Learners (WIDA Levels 1 through 3). After referral, each student's English proficiency is assessed using formal and informal measures. Annual reassessment of skills occurs for each student. The purpose of ESL classes is to build facility with students' reading, writing, listening, and speaking skills. Lessons are based on the WIDA and Common Core frameworks. This class is taken in lieu of the grade level English class.

**Grade Level: 10**

**Prerequisites: Qualifying Test Results**

**Fulfills: English Requirement**

## **129 ENGLISH FUNDAMENTALS**

**Level: Unlevleled**

**Credits: 5.0**

This course is designed for students with significant weakness in reading fluency, reading comprehension, spelling, vocabulary, and written expression. Individualized instruction involves a multi-sensory approach, slower pace, and consistent review of information. Strategies are designed to enable students to improve communication skills.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 10**

**Prerequisites: Special Education Team Decision**

**Fulfills: English Requirement**

## **131 ENGLISH 11 (H)**

**Level: Honors**

**Credits: 5.0**

The focus of this course is the continued development of each student as a critical reader, writer, and thinker. Through the close reading of selected American authors, students will examine the connection between a writer's purpose, form, and content. Spelling, usage, and mechanics will be investigated as tools for creating clear and understandable writing. Students will be responsible for long and short-term supplementary reading assignments and will expand their research skills. Honors courses move at a faster pace and require more independent work than do College Preparatory courses.

**Grade Level: 11**

**Prerequisites: English 10**

**Fulfills: English Requirement**

## **132 ENGLISH 11 (CP)**

**Grade Level: 11**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Level: College Prep**  
**Credits: 5.0**

**Prerequisites: English 10**  
**Fulfills: English Requirement**

The focus of this course is the continued development of each student as a critical reader, writer, and thinker. Through the close reading of American literature tracing key themes, students will examine the connection between a writer's purpose, form, and content. Spelling, usage, and mechanics will be investigated as tools for creating clear and understandable writing. Students will be responsible for long and short-term supplementary reading.

## **134 ENGLISH AS A SECOND LANGUAGE**

**Level: Unleveled**  
**Credits: 5.0**

**Grade Level: 11**  
**Prerequisites: Qualifying Test Results**  
**Fulfills: English Requirement**

This course is designed for Entering to Developing English Language Learners (WIDA Levels 1 through 3). After referral, each student's English proficiency is assessed using formal and informal measures. Annual reassessment of skills occurs for each student. The purpose of ESL classes is to build facility with students' reading, writing, listening, and speaking skills. Lessons are based on the WIDA and Common Core frameworks. This class is taken in lieu of the grade level English class.

## **139 ENGLISH FUNDAMENTALS**

**Level: Unleveled**  
**Credits: 5.0**

**Grade Level: 11**  
**Prerequisites: Special Education Team Decision**  
**Fulfills: English Requirement**

This course is designed for students with significant weakness in reading fluency, reading comprehension, spelling, vocabulary, and written expression. Individualized instruction involves a multi-sensory approach, slower pace, and consistent review of information. Strategies are designed to enable students to improve communication skills.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

## **167 AMERICAN STUDIES II (CP or H)**

**Level: CP - Contract for Honors**  
**Credits: 10.0 (English and SS)**

**Grade Level: 11**  
**Prerequisites: US Hist 1 and English 10**  
**Fulfills: English and SS Requirement**

This interdisciplinary course blends themes and trends from American history through the 19th and 20th centuries with the voices of American authors who defined determination and progress to elevate, improve, or progress social, political, and economic adversities. Students will explore the American heritage through critical thinking, research, and close analysis of literature, philosophy, film, historical documents, art, and music in order to understand what it means to be an American. This course is co-taught by an English and a history teacher and will satisfy both junior-level English and history courses through a double-block schedule. Though this class is unleveled, students will have the option to contract for honors **All students must take the AP Language and Composition Exam.**

## **169/169H PROJECT CITIZEN**

**Level: College Prep, students may contract for Honors**  
**Credits: 5.0**

**Grade Level: 12**  
**Prerequisites: English 11**  
**Fulfills: English Requirement**

Featuring a combined English and Civics focus with an emphasis on how local government works to serve citizens, this course encourages students to explore the thinking, rhetoric, and policy on current issues that matter to them. Students will build an understanding of diverse perspectives, who the public policy decision makers are and how they craft policy. Reading and analyzing articles and editorials on policy issues will be a regular focus, so an interest in current events or rhetoric will be useful. Possible effects of the loss of individual rights and a democratic form of government will be the focus of the Dystopian Novel unit. All of Q3 will focus on a group project. After identifying a problematic local policy they would like changed, students will research the topic, consider alternative policies, and develop a persuasive proposal and action plan to



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

present. The goal is for students to learn how to be the change they would like to see in the world.

## **171/171H PAGE TO STAGE**

**Level:** College Prep, students may contract for Honors

**Credits:** 5.0

From the screen to the stage, literary adaptations are everywhere. Yet what critical, creative choices do dramatists make in adapting genres such as fiction and nonfiction into more performative pieces? In this class, students will work collaboratively in order to theatricalize text and analyze writing through the lens of dramatic strategies. Through kinesthetic, on-your-feet exercises, we will examine imagery in diverse texts ranging from historic speeches to classic Shakespeare. Though performance is central to this course, the emphasis is on literary adaptation and not on acting; no previous acting experience is required.

**Grade Level:** 12

**Prerequisites:** English 11

**Fulfills:** English Requirement

## **172/172H THE EVOLUTION OF THE HERO**

**Level:** College Prep, students may contract for Honors

**Credits:** 5.0

During our journey in life, we routinely embark on our own personal quests, confront and overcome various challenges, and strive to slay our figurative dragons. Sometimes we're the hero of our own adventure, and occasionally we're the hero in another's, but fortunately for all of us, heroes come in all shapes and sizes, genders, sexualities, races, and creeds. In this course, we will explore the evolution of the hero figure in literature and society from ancient times through the 21st Century. We will investigate what it means to be a hero and how that definition and depiction is a reflection of the time period and culture in which the work was produced. We will move from the concept of the classic demi-god/warrior archetype to the warrior/knight of medieval times to the pioneers of civil rights to the more-modern heroine, the concept of the antihero, and heroes and heroines that exist due to societal progress or the ever-present need for it.

**Grade Level:** 12

**Prerequisites:** English 11

**Fulfills:** English Requirement

## **176/176H WRITING WORKSHOP**

**Level:** College Prep, students may contract for Honors

**Credits:** 5.0

Students who elect this course will work on developing their skills as writers. Using the writing process, writing workshop model, including individual conferences and peer review procedures, students will draft, revise, edit, and publish their writing. Requirements of this class will include daily writing, maintenance of a writer's notebook, and the publication of each student's writing. Writing genres to be covered include but are not limited to: narrative, creative, mystery/suspense, and poetry

**Grade Level:** 12

**Prerequisites:** English 11

**Fulfills:** English Requirement

## **182/182H COLLEGE, CAREER and COMMUNICATION**

**Level:** College Prep, students may contract for Honors

**Credits:** 5.0

With the curriculum aligned with student career goals in mind, this College and Career Readiness course will focus on the following: college essay, career research project, senior project, and finally the Falcon internship. Upon graduating, students will be ready to take on college-level assignments as well as master the art of effective communication by practicing interviewing skills and learning to create powerful resumes and cover letters. Students will leave DHS equipped to present opinions, positions, and personal stories as thinkers, speakers and writers, all in strong, confident voices that deserve to be acknowledged and heard.

**Grade Level:** 12

**Prerequisites:** English 11

**Fulfills:** English Requirement

## **144 ENGLISH AS A SECOND LANGUAGE**

**Level:** Unleveled

**Credits:** 5.0

This course is designed for Entering to Developing English Language Learners (WIDA Levels 1 through 3). After referral, each student's English proficiency is assessed using formal and informal measures. Annual reassessment of skills occurs for each student. The purpose of ESL classes is to build facility with students' reading, writing,

**Grade Level:** 12

**Prerequisites:** Qualifying Test Results

**Fulfills:** English Requirement



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

listening, and speaking skills. Lessons are based on the WIDA and Common Core frameworks. This class is taken in lieu of the grade level English class.

## **149 ENGLISH FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

This course is designed for students with significant weaknesses in reading fluency, reading comprehension, spelling, vocabulary, and written expression. Individualized instruction involves a multi-sensory approach, slower pace, and consistent review of information. Strategies are designed to enable students to improve communication skills.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: English Requirement**

## **ADVANCED PLACEMENT (AP) Courses**

### **180 AP ENGLISH: LANGUAGE AND COMPOSITION**

**Level: Advanced Placement**

**Credits: 6.0**

The AP course in Language and Composition engages students in the study of rhetoric: the structure and style of writing. Unlike traditional English courses, this course will focus primarily on the reading and writing of non-fiction. Through close readings of non-fiction texts, students will develop a keener sense of the methods and rhetorical strategies at work in successful writing. Throughout the year, students will read a variety of essays from a range of historical contexts. Furthermore, students will immerse themselves in the process of writing with a focus on rhetorical analysis and argument. Extensive reading and writing are expected from students throughout the course. Moreover, students are expected to carry a rigorous summer workload. **All students must take the AP Language and Composition Exam.**

**Grade Level: 11**

**Prerequisites: English 10**

**Fulfills: English Requirement**

### **181 AP ENGLISH: LITERATURE AND COMPOSITION**

**Level: Advanced Placement**

**Credits: 6.0 and Composition or English 11**

The AP course in Literature and Composition engages students in the careful reading and critical analysis of literature. Through close reading of selected texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students will consider a work's structure, style, and themes as well as such elements as the use of figurative language, imagery, symbolism, and tone. Extensive reading and writing are expected of the student. **All students must take the AP Literature and Composition Exam.**

**Grade Level: 12**

**Prerequisites: AP English: Language**

**Fulfills: English Requirement**

## **ENGLISH ELECTIVES**

### **160 JOURNALISM**

**Level: College Prep, students may contract for Honors**

**Credits: 2.5 or 5.0**

This course is designed to introduce students to the fundamentals of print journalism. Participants will learn interviewing skills and research techniques, as well as editing and design skills using Adobe InDesign. Writing will span a range from news and sports articles to features and editorials for publication in the school newspaper, *The Flying Onion*. The major product of this course is *The Flying Onion*, including all writing, editing, design, publication and distribution (throughout the school and town), which also appears in *The Herald Citizen*. In addition, students will be required to follow local, national, and world news. Students taking this course multiple times will have the opportunity to take on leadership roles in the school newspaper, including editing, designing, producing. One of the products of this course is the bi-monthly publication of *The Flying Onion* in *The Herald Citizen*. **\*\*Seniors taking this for second semester of senior year are required to have**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Elective Credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

*taken it previously.*

## **171 READING FOR ENJOYMENT (CP)**

**Level:** College Prep, students may contract for Honors  
**Credits:** 2.5

The more you read, the stronger reader, writer, and thinker you become! Course participants will have the opportunity to read as well as expand their abilities to read, comprehend, and enjoy literature. Discussion topics include vocabulary, theme, reading strategies, character development, and advanced reading skills. A range of assessments will be used to facilitate reading improvement; however, the central focus of this course is to enjoy reading and to read, read, read!

**Grade Level:** 9, 10, 11, 12

**Prerequisites:** None

**Fulfills:** Elective Credit

## **194 ACADEMIC SUPPORT FOR ENGLISH LANGUAGE LEARNERS**

**Level:** Unleveled, Pass/Fail  
**Credits:** 2.5 or 5.0

This academic support class is assigned to students identified as English Language Learners. Students work on class assignments and projects from content-area classes. The teacher uses graphic organizers, visuals, and other media to clarify directions, vocabulary, and texts.

**Grade Level:** 9, 10, 11, 12

**Prerequisites:** Qualifying Test Results

**Fulfills:** Elective Credit

## **120 ELA Foundations**

**Level:** College Prep  
**Credits:** 2.5

This elective course is for selected students who need to further develop critical thinking, reading (and response-to-reading), writing, speaking and listening skills beyond the Grade 9 or 10 ELA course. A more individualized experience will identify and build on each students' unique strengths and then meet specific student needs, interests and goals. This course runs concurrently with a student's core ELA 9 or ELA 10 course. Teacher or administrator recommendation required.

**Grade Level:** 9 and 10

**Prerequisites:** Teacher Placement

**Fulfills:** Elective Credit



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **SOCIAL STUDIES**

The Danvers High School social studies program is aligned with the Massachusetts Social Studies Curriculum Frameworks. In grade 9, students will successfully complete the Topics in World History course. In grade 10, students will complete a U.S. History I course that focuses on the Colonial Period through the Progressive Era. Connections in the course will be made to national, state, and local government when appropriate. Some sophomores are recommended for Advanced Placement European History in grade 10 with the requirement of enrolling in AP U.S. History the following year. In grade 11, students will expand their knowledge of the United States in U.S. History II, studying the periods from The Great War to the late 20th century. Students in grade 12 are required to select a full year of social studies from the wide range of social studies electives offered. The Social Studies department provides students with learning experiences to achieve the following school-wide expectations: students will communicate effectively through writing, speaking, and other mediums; students will use appropriate strategies in order to achieve effective reading comprehension; and students will be critical thinkers who locate, analyze, evaluate, and synthesize information.

### **Recommended Sequence of Study**

	<b>College Prep Level</b>	<b>Honors Level</b>	<b>AP Courses</b>
<b>Freshman</b>	World History	World History	N/A
<b>Sophomore</b>	U.S. History I	U.S. History I	AP European History
<b>Junior</b>	U.S. History II OR American Studies CP/H	U.S. History II OR American Studies CP/H	AP U.S. History AP Psychology*
<b>Senior</b>	Electives	Electives	AP Government AP Psychology AP Economics

\* Please note that juniors must take either US II, American Studies, or AP US. AP Psychology would be considered an elective course selection

### **Grade 11 and 12 Electives**

<b>AP Courses</b>	<b>Honors/College Prep Level</b>
-------------------	----------------------------------



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

AP European History	Current Affairs
AP U.S History	History in Film
AP U.S. Government & Politics	Introduction to Philosophy: Ethics and Politics
AP Psychology	Legal Issues: Courts and Criminals
AP Economics	Psychology
	Service Learning
	Sociology

## 207 Topics in World History (H)

Level: Honors

Credits: 5.0

This course will examine topics in World History that shaped the world in which we live. Through examination of primary and secondary sources, students will evaluate historical topics, highlighting global connections between the past and the present. Students will develop historical thinking skills with an emphasis on critical thinking and analysis of evidence so that they can be independently minded global citizens. At the honors level, students are expected to participate with a greater level of independence, rigor, and analytical insight.

Grade Level: 9

Prerequisites: None

Fulfills: Social Studies Requirement

## 208 Topics in World History (CP)

Level: College Prep

Credits: 5.0

This course will examine topics in World History that shaped the world in which we live. Through examination of primary and secondary sources, students will evaluate historical topics, highlighting global connections between the past and the present. Students will develop historical thinking skills with an emphasis on critical thinking and analysis of evidence so that they can be independently minded global citizens.

Grade Level: 9

Prerequisites: None

Fulfills: Social Studies Requirement

## 226 U.S. HISTORY I (H)

Level: Honors

Credits: 5.0

This course traces the political, economic, geographic, social, and cultural growth of the United States from the Colonial Period through the Progressive Era. The use of maps, charts, graphs, tables, primary source readings, and supplementary texts will provide the student with a better understanding of American heritage and the place of the United States in the world. This course requires students to work at a demanding level.

Grade Level: 10

Prerequisites: World History

Fulfills: Social Studies Requirement

## 227 U.S. HISTORY I (CP)

Level: College Prep

Credits: 5.0

This course traces the political, economic, geographic, social, and cultural growth of the United States from the Colonial Period through the Progressive Era. The use of maps, charts, graphs, tables, primary source readings, and supplementary texts will provide the student with a better understanding of American heritage and the place of the United States in the world.

Grade Level: 10

Prerequisites: World History

Fulfills: Social Studies Requirement



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **261/261H AMERICAN STUDIES I**

**Level: College Prep, Contract for Honors**

**Credits: 10.0 (English and SS)**

This interdisciplinary course blends historical context from precolonial history to World War I with contemporary connections in literature. Students will explore historical themes through critical thinking, research, and close analysis of literature, philosophy, film, historical documents, art, and music in order to understand what it means to be an American. This course is co-taught by an English and a history teacher and will satisfy both sophomore-level English and history courses through a double-block schedule. Though this class is unlevleled, students will have the option to contract for honors.

**Grade Level: 10**

**Prerequisites: ELA 9 and World Hist.**

**Fulfills: English and SS Requirement**

## **205sc AMERICAN HISTORY: LEADERS & ECONOMY**

**Level: Unlevleled**

**Credits: 5.0**

Through a thematic approach, this course focuses on how American leaders and the economy influenced the development of the United States in the time period from 1650-1880. The course is offered in alternating years with American History: Government, Policies, and Conflict.

This course is designed for students who are assigned to a special education class through the Special Education Team process.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 9, 10**

**Prerequisites: Special Education Team Decision**

**Fulfills: Social Studies Requirement**

## **206sc AMERICAN HISTORY: GOVERNMENT, POLICIES, and CONFLICT**

**Level: Unlevleled**

**Credits: 5.0**

Through a thematic approach, this course focuses on the underpinnings of the U.S. government, its domestic and foreign policies, and the resulting conflicts in the time period from 1650-1880. The course is offered in alternating years with American History: Leaders and Economy.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 9, 10**  
**Prerequisites: Special Education Team Decision**  
**Fulfills: Social Studies Requirement**

## **235 U.S. HISTORY II (H)**

**Level: Honors**

**Credits: 5.0**

Through a combined thematic-chronological approach, this course presents a survey of American history from post-Reconstruction to the Vietnam War era. Students will investigate the economic, political, social, and cultural growth of the United States during this era. Students will develop a more comprehensive understanding of American history through the use of maps, charts, reference materials, and primary source documents.

**Grade Level: 11**  
**Prerequisites: U.S. History I**  
**Fulfills: Social Studies Requirement**

## **236 U.S. HISTORY II (CP)**

**Level: College Prep**

**Credits: 5.0**

Through a combined thematic-chronological approach, this course presents a survey of American history from post-Reconstruction to the Vietnam War era. In a structured classroom environment, the students will

**Grade Level: 11**  
**Prerequisites: U.S. History I**  
**Fulfills: Social Studies Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

investigate the economic, political, social, and cultural growth of the United States during this era. Students will develop a more comprehensive understanding of American history through the use of maps, charts, reference materials, primary source documents, and vocabulary reinforcement.

## **260 AMERICAN STUDIES II (CP or H)**

**Level: CP - Contract for Honors**

**Credits: 10.0 (English and SS)**

**Grade Level: 11**

**Prerequisites: US Hist 1 and English 10**

**Fulfills: English and SS Requirement**

This interdisciplinary course blends themes and trends from American history through the 19th and 20th centuries with the voices of American authors who defined determination and progress to elevate, improve, or progress social, political, and economic adversities. Students will explore the American heritage through critical thinking, research, and close analysis of literature, philosophy, film, historical documents, art, and music in order to understand what it means to be an American. This course is co-taught by an English and a history teacher and will satisfy both junior-level English and history courses through a double-block schedule. Though this class is unlevelled, students will have the option to contract for honors.

## **ADVANCED PLACEMENT (AP) Courses**

### **281 AP EUROPEAN HISTORY**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 10, 11, 12**

**Prerequisites: Teacher Recommendation**

**Fulfills: Social Studies Requirement**

AP European History is an academically challenging course that focuses on developing students' abilities to think conceptually about European history from approximately 1450 to the present and to apply historical thinking skills as they learn about the past. Students will develop skills in historical inquiry as practiced by real historians by examining historical developments through various lenses and across time periods. Students will develop the ability to analyze historical evidence and construct valid historical arguments in writing. Summer work is required. All students must take the AP European History exam.

### **271 AP U.S. HISTORY**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 11, 12**

**Prerequisites: U.S. History I or AP European History**

**Fulfills: Social Studies Requirement**

This challenging course is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the recurring problems and essential questions of United States history. Students will learn to assess historical materials (their relevance to any given interpretative problem, their reliability, and their importance), construct their own conclusions, and make informed judgments. Summer work is required. All students must take the AP U.S. History exam.

### **272 AP U.S. GOVERNMENT & POLITICS**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 11, 12**

**Prerequisites: Completion of or concurrent enrollment in AP U.S. History or U.S. History II**

**Fulfills: Social Studies Requirement**

This course is designed to be an in-depth examination of how American government functions. Unlike history courses, the focus is on present day political events. Although the course touches on the historical underpinnings of our government, the primary focus is on recent political events, and students are expected to



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

develop an understanding of current political trends by staying current with the “politics of the day.” Each unit will address the course’s guiding question: “Who governs and to what ends?” Summer work is required. **All students must take the AP U.S. Government and Politics exam.**

## **291 AP PSYCHOLOGY**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 11, 12**

**Prerequisites: Psychology 264 (Recommended)**

**Fulfills: Social Studies Requirement**

The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas. Summer work is required. **All students must take the AP Psychology exam.**

## **625 AP ECONOMICS**

**Level: Advanced Placement**

**Credits: 6**

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies or Business credit**

A.P. Economics is a college level, full year course that provides all students with a full understanding of basic economic principles. The class will focus on the study of national income, performance measures, economic growth and domestic and international economics. The goal of the course is to provide students with a course equivalent to a college level introduction to economics. The course will cover principles associated with both Micro and Macroeconomics to prepare for the AP examination in May. Resources for the course will provide students with a comprehensive breakdown of concepts and principles associated with the exam. **Students are required to register for and take the AP Examination in May.**

## **SOCIAL STUDIES ELECTIVES**

### **203 HISTORY IN FILM (CP)**

**Level: College Prep, Student may contract  
For Honors**

**Credits: 5.0**

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

Film has been a medium that has influenced great masses of people over several generations. This course will explore how various historical people, events, and periods are depicted in film. After careful analysis of a specific historical topic, students will compare the various degrees of accuracy of the film with a variety of historical data. Reading and writing are an important component of this course. Students are expected to critique, or create journal responses, for the various films discussed.

### **239 CURRENT AFFAIRS (CP)**

**Level: College Prep, Student may  
contract for honors**

**Credits: 5.0**

**Grade: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

In this class, students will study many of the pressing issues confronting the United States in the 21<sup>st</sup> century. Topics will include the U.S. role in the world, immigration, the “Arab Spring,” global warming, nuclear proliferation, and terrorism. Students will read, write, and discuss current events and contemporary media pieces from a variety of newspapers, magazines, and Internet sources. The historical basis of major issues will be studied so that students can make connections between past and present to gain a richer understanding of



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

current events. A major focus of this course is to understand and independently evaluate information from a variety of sources. Students will be presented with conflicting perspectives and analysis and will need either to reconcile those views or to defend a position with sound reasoning and appropriate evidence. Lessons will include research, discussions, debates, and lectures. The goal of the course is to encourage students to gain awareness of the world around them and to improve critical thinking skills in order to become better informed citizens.

## **242 SERVICE LEARNING (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 5.0**

This interdisciplinary course is designed for students who have a strong commitment to improving their community and are motivated to create and implement service projects that meet community needs. Students learn about pressing local, national, and international issues such as the environment, violence, social class, and health/wellness through literature, newspaper articles, documentaries, and guest speakers. The objective of the course is for students to research a problem, develop a solution, and implement their solution collaboratively with peers and community partners. Through their service projects, students will develop their research, writing, public speaking, and critical thinking skills.

**Grade: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

## **251 LOCAL HISTORY (CP)**

**Level: College Prep, Students may contract for Honors**

**Credits: 5.0**

This course explores the rich history of Danvers, formally Salem Village, and the surrounding area. An emphasis is placed on the use of primary source documents and methodology in order to gain a better understanding of the past. Some of the topics will be colonial settlement, the origins of the Salem Witch Trials, the American Revolution, Essex County and maritime trade, and the abolition movement. Students will participate in hands-on projects, work with local historians, and attend site visits.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

## **258 LEGAL ISSUES: COURTS & CRIMINALS (CP)**

**Level: College Prep, Student may Contract for Honors**

**Credits: 5.0**

This course introduces students to the ideas underlying the American justice system and the criminal law in particular. Students will study the theoretical foundation of laws including the Constitution and the methods used to resolve legal conflict. Students will study the different crimes (person, property, etc.) and their elements and will be able to apply these ideas to factual situations. Students will learn how to be an advocate for a particular point of view and to express themselves effectively both orally and in writing. The overall goal of the course is for students to gain a better understanding of the role of the law in society and in their own lives.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

## **259 INTRODUCTION TO PHILOSOPHY: ETHICS & POLITICS (CP)**

**Level: College Prep, Student may**

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **contract for Honors**

**Credits: 5.0**

Over 2000 years ago, the Greek thinker and teacher, Socrates, said, “The unexamined life is not worth living.” With that phrase in mind, he embarked on a personal philosophical quest seeking answers to the essential questions of life. This course will continue the tradition begun by Socrates and explore the issues of the nature of ethical conduct and the various aspects of political association. Students will study great philosophers from both the Western and Eastern traditions, but the ultimate goal is for students to develop their own philosophical viewpoint as to how to live as a moral individual and as a thinking citizen.

## **263 SOCIOLOGY**

**Level: College Prep, Student may**

**contract for Honors**

**Credits: 5.0**

Who are you and how did you develop your personality, passions, interests, and values? How much of you is unique, and how much is really shaped by where you grow up or the friends and family you have? Sociology is the study of human society with the goal of understanding how everyday life and personal experiences are influenced by societal forces that are invisible to us. This course is an introduction to the history and theories of sociology and how they apply to our lives. Students will explore concepts like the influence of culture, socialization, role, status, and agents of society on shaping who we are as individuals and how and why we interact with one another in groups. Other topics include: institution, personality, social organization, the dynamics of change, the social roots of behavior and attitudes, social control, deviance, and the dialectical relationship between the individual and society.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

## **264 PSYCHOLOGY**

**Level: College Prep, Student may**

**contract for Honors**

**Credits: 5.0**

This is an elective course in psychology for those students with a serious interest in the study of human behavior. This course will introduce basic psychological terms and theories of development. Some of the topics will be mental health, theories of personality, the influence of biology on behavior, and perception.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**

## **SOCIAL STUDIES COURSES NOT OFFERED 2021-2022**

### **253 THE HUMAN MOSAIC: CITIZENS IN A GLOBAL WORLD (CP)**

**Level: College Prep, Student may**

**contract for Honors**

**Credits: 5.0**

Have you ever wondered why particular countries remain in a state of unrest, have certain alliances, thrive or struggle economically, or favor some ideas over others? As the Human Mosaic course addresses these questions, students will be exposed to diverse cultures and societies around the world. Through class discussions and the examination and analysis of journal articles, films, and other primary and secondary mediums, the course will foster the growth of global citizens. Nations/regions such as Brazil, India, China, the Middle East, and sub-Saharan Africa will be examined through an interdisciplinary study of cultural geography, international relations, globalization, culture, and connections between the historical past and present.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## SCIENCE

The goal of the science program is to develop scientifically literate students. The Science department works with students to understand scientific information that they encounter in their daily lives and use critical thinking for decision-making. In developing scientific literacy, the Science department has students engage in the following: identifying problems, employing multiple approaches, researching appropriate resources, evaluating and assessing data, and communicating understandings. Along with cultivating scientific literacy, the Science Department's program prepares students for the range of college majors that require a strong science background. The Science department provides students with learning experiences to achieve the following school-wide expectations: students will communicate effectively through writing, speaking, and other mediums; students will be critical thinkers who locate, analyze, evaluate, and synthesize information; and students will work independently and collaboratively to accomplish goals.

Four years of science are required for graduation. Students are required to take biology freshman year and chemistry sophomore year. They may choose the courses they take in their junior and senior years.

*\*Indicates a mandatory course*

Grade	AP Level	Honors	College Prep
Freshman	none	<b>Honors Biology*</b> PLTW elective • Biomed. Science	<b>CP Biology*</b>
Sophomore	none	<b>Honors Chemistry*</b> PLTW elective • Biomed. Science • Human Body Systems (must take Biomed science as a prerequisite)	<b>CP Chemistry*</b>
Junior	AP Chemistry AP Biology AP Environmental Science	Anatomy and Physiology Marine Biology Biology II Chemistry II Honors Physics PLTW • Biomed. Science • Human Body Systems • Engineering ○ Intro to Engineering Design ○ Principles of Engineering	Anatomy and Physiology Biology II Marine Biology Biotechnology Nanotechnology The Art of Animal Form & Function CP Physics Physics of Sport



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Senior	AP Chemistry AP Biology AP Environmental Science AP Physics AP/PLTW Computer Science A	Anatomy and Physiology Marine Biology Biology II Chemistry II Honors Physics PLTW <ul style="list-style-type: none"> <li>• Biomed. Science</li> <li>• Human Body Systems</li> <li>• Engineering             <ul style="list-style-type: none"> <li>○ Intro to Engineering Design</li> <li>○ Principles of Engineering</li> </ul> </li> </ul>	Anatomy and Physiology Biology II Marine Biology Biotechnology Nanotechnology The Art of Animal Form & Function Physics Physics of Sport
--------	--	---	---

**PROJECT LEAD the WAY COURSES:** Project Lead The Way courses provide a transformative learning experience for K-12 students and teachers across the U.S. PLTW creates an engaging classroom environment and empowers students to develop and apply in-demand, transportable skills by exploring real-world challenges. Through pathways in computer science, engineering, and biomedical science, students not only learn technical skills, but also learn to solve problems, think critically and creatively, communicate, and collaborate. Students taking biology can concurrently take PLTW Principles of Biomedical Science. Students taking chemistry are allowed to take PLTW Principles of Biomedical Science or PLTW Human Body Systems if they have already passed Principles of Biomedical Science. They can also be taken as electives for juniors and seniors.

### 321 BIOLOGY (H)

**Level: Honors**

**Credits: 5.0**

This course emphasizes the unifying themes of biology. The primary objective of this course is to teach science as a method of reasoning, encouraging new questions as well as seeking answers to established questions. To accomplish this, underlying concepts and understandings are stressed while making real life applications. Laboratory work is an essential component of this course. The unit topics include characteristics of living things, structure and function of cells, evolution, genetics/heredity, human anatomy and physiology, and ecology. This course prepares students for the science MCAS test, a requirement for graduation.

**Grade Level: 9**

**Prerequisites: None**

**Fulfills: Science Requirement**

### 322 BIOLOGY (CP)

**Level: College Prep**

**Credits: 5.0**

This course emphasizes the unifying themes of biology. The primary objective of this course is to teach science as a method of reasoning, encouraging new questions as well as seeking answers to established questions. To accomplish this, underlying concepts and understandings are stressed while making real life applications. Laboratory work is an essential component of this course. The unit topics include characteristics of living things, structure and function of cells, evolution, genetics/heredity, human anatomy and physiology, and ecology. This course prepares students for the science MCAS test, a requirement for graduation.

**Grade Level: 9**

**Prerequisites: None**

**Fulfills: Science Requirement**

### 329 BIOLOGY I

**Level: Unleveled**

**Credits: 5.0**

This course is assigned to special education students with the necessary skills-based modifications. The course

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: Science Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

emphasizes the unifying themes of biology. The unit topics include characteristics of living things, structure and function of cells, evolution, genetics/heredity, human anatomy and physiology, and ecology. There is a strong emphasis on MCAS preparation.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

## **339 BIOLOGY II**

**Level: Unleveled**

**Decision**

**Credits: 5.0**

This course is assigned to special education students and includes the necessary skills-based modifications. The curriculum revisits essential topics from the freshman biology course, and also explores the various human body systems, ecology, and evolution in more depth. This course is recommended for students preparing for the Biology MCAS retest.

- This course is designed for students who are assigned to a special education class through the Special Education Team process.

**Grade Level: 10**

**Prerequisites: Special Education Team**

**Fulfills: Science Requirement**

## **331 CHEMISTRY (H)**

**Level: Honors**

**Credits: 5.0**

This course emphasizes the fundamental concepts of general inorganic chemistry. Concepts are covered in some depth as a way to understand scientific reasoning. A primary objective of this course is to teach chemistry as a method of reasoning. To accomplish this, students work in the lab to gather evidence to support underlying concepts. Students also learn about evidence gathered by other scientists. Students research, interpret, and write about concepts. Concepts are tied to real life applications.

**Grade Level: 10**

**Prerequisites: Algebra I, Biology**

**Fulfills: Science Requirement**

## **332 CHEMISTRY (CP)**

**Level: College Prep**

**Credits: 5.0**

This course emphasizes the fundamental concepts of general inorganic chemistry. Students survey a variety of chemistry topics. A primary objective of this course is to teach chemistry as a method of reasoning. To accomplish this, students work in the lab to gather evidence to support underlying concepts. Students also learn about evidence gathered by other scientists and write about chemistry concepts. Concepts are tied to real life applications.

**Grade Level: 10**

**Prerequisites: Algebra I, Biology**

**Fulfills: Science Requirement**

## **318 ENVIRONMENTAL SCIENCE FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

This course is designed for special education students and includes necessary skills-based modifications. The curriculum investigates elements of the life sciences such as sustainability, pollution, and energy conservation. Students make real life connections to the world around them and how they can positively impact the environment.

**Grade Level: 11**

**Prerequisites: Special Education Team Decision**

**Fulfills: Science Requirement**

## **SCIENCE ELECTIVES - FULL YEAR COURSES**

### **341 BIOLOGY II (H)**

**Level: Honors**

**Credits: 5.0**

This is an upper level lecture and laboratory course designed to investigate and explore advanced biological concepts and principles. Course topics include plant diversity, reproduction, and energetics, invertebrate/

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

vertebrate anatomy and physiology, biological membranes, cellular reproduction, cell cycle regulation, the molecular basis of inheritance, and gene expression. Students will conduct laboratory work and develop skills as scientific writers. Biology II benefits students who desire a more comprehensive understanding of this diverse discipline.

### **338 BIOLOGY II (CP)**

**Level: College Prep**

**Credits: 5.0**

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

This is an upper level lecture and laboratory course designed to investigate and explore advanced biological concepts and principles. Course topics include plant diversity, reproduction, and energetics, invertebrate/vertebrate anatomy and physiology, biological membranes, cellular reproduction, cell cycle regulation, the molecular basis of inheritance, and gene expression. Students will conduct laboratory work and develop skills as scientific writers. Biology II benefits students who desire a more comprehensive understanding of this diverse discipline.

### **350 HUMAN ANATOMY AND PHYSIOLOGY (H)**

**Level: Honors**

**Credits: 5.0**

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

This is an upper level discussion and laboratory course designed to investigate and explore the structure and function of the human body. The course topics include Cytology, Histology, human symmetry, anatomical terminology, the integumentary system, skeletal system, articulations and joint movement, muscular system, endocrine system, blood, cardiovascular system, digestion and nutrition, respiratory system, urinary system, male and female reproductive systems, and developmental patterns in humans. Laboratory work will involve microscopy, dissection, and handling of models and live specimens. Writing in the biological sciences will also be emphasized.

### **364 ANATOMY AND PHYSIOLOGY (CP)**

**Level: College Prep**

**Credits: 5.0**

**Grade Level: 11, 12**

**Prerequisites: Biology**

**Fulfills: Science Requirement**

This full year course emphasizes human anatomy and physiology for students interested in how their body functions. This course will encourage new questioning and teach science as a method of reasoning in an effort to answer these questions. Units of study will include the cell, human anatomical systems, injury prevention and therapy, and maintenance of health. Laboratory work will involve microscopy, dissection, and handling of models and live specimens.

### **351 PHYSICS (H)**

**Level: Honors**

**Credits: 5.0 enrollment in or completion of Algebra II**

**Grade Level: 11, 12**

**Prerequisites: concurrent**

**Fulfills: Science Requirement**

This course emphasizes the physics concepts of mechanics, light, sound, and electricity. The primary objective of this course is to teach science as a method of reasoning, encouraging new questions as well as seeking answers to established questions. To accomplish this, underlying concepts and understandings are stressed while making real life applications. Student work is centered in the laboratory. The unit topics include



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

measurement and motion, motion and force in two dimensions, energy and momentum, waves and sound, light and optics, and electricity and magnetism.

## **352 PHYSICS (CP)**

**Level: College Prep**

**Credits: 5.0 enrollment in or completion of Algebra II**

This course emphasizes the physics concepts of mechanics, light, sound, and electricity. Although basic algebra is used in problem solving, this course will primarily stress an understanding as well as an application of the concepts. The student work will be centered in the lab. Experiments will allow students to explore ideas as well as develop new approaches to learning. The unit topics include measurement and motion, motion and force in one dimension, energy and momentum, waves and sound, light and optics, and electricity and magnetism.

**Grade Level: 11, 12**

**Prerequisites: concurrent**

**Fulfills: Science Requirement**

## **361 CHEMISTRY II (H)**

**Level: Honors**

**Credits: 5.0**

This second year course in chemistry emphasizes aspects of college-level general chemistry. Students work in the laboratory and use scientific reasoning to explain results. Students relate results to real life applications and chemical research. Topics include atomic structure and theory, chemical bonding, chemical reactions and stoichiometry, gasses, kinetics and equilibrium, and an introduction to organic chemistry.

**Grade Level: 11, 12**

**Prerequisites: Chemistry**

**Fulfills: Science Requirement**

## **353Y The Art of Animal Form and Function**

**Level: College Prep**

**Credits: 5.0 credits Art or Science**

**2.5 credits Art and Science each**

A cross-disciplinary course that merges the formal study of zoology with artistic expression. Individual creative teams will explore major invertebrate and vertebrate phyla and develop a thorough understanding of specialized structures, elements of protection, support, and movement, system anatomy, and vital evolutionary relationships among and between species. Students will use various techniques and mediums to generate personalized pieces that will be incorporated in a student-coordinated installation and exhibition, displaying and sharing artistic perspective and communicating a biological understanding of animal structure, function, diversity, and interconnectedness.

**Grade Level: 11, 12**

**Prerequisites: Biology**

**Fulfills: Science and/or Art**

## **SCIENCE ELECTIVES - SEMESTER COURSES**

### **370 PHYSICS OF SPORT (CP)**

**Level: College Prep**

**Credits: 2.5**

This course will examine the mechanics of motion set in the context of sports. Key physics concepts (force, momentum, acceleration, and power) and the equations relating them will be explored through the study of common sporting techniques such as free-throws, football tackles, wrestling, pole-vaulting, home runs, and

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Science Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

slap-shots. If students play sports or simply enjoy watching sports, this course will help explain to their minds what their bodies already know. The course will center on project based learning and will make use of video analysis and stop motion technology to study the kinematics and dynamics of the motions involved. Labs will be developed collaboratively by the students and instructor to allow freedom of guided and open inquiry. The goal is for the students to leave the course with an improved qualitative understanding of the physics of sports as well as an appreciation of how scientists apply modeling techniques to the real world. **Offered in Spring semester 2022 only.**

### **340 BIOTECHNOLOGY (CP)**

**Level: College Prep, Students may contract for Credits: 2.5**

**Grade Level: 10, 11, 12**

**Prerequisites: Biology Honors**

**Fulfills: Science Requirement or Technology/Engineering**

This elective course will focus on the field of biotechnology and its current advances. Building on core concepts from biology, this course will further investigate DNA, genetics, proteins, and other topics related to biotechnology. Basic biotechnological techniques will be introduced through student lab work and project-based assignments. Units include DNA synthesis, transcription, translation, genetic engineering, genetic basis for diseases, immunology, uses of biotechnology in criminal investigations, and bioethics. Students who wish to contract for honors credit will be required to complete an independent project in addition to the college preparatory work. **Offered in Spring semester 2022 only**

### **342 MARINE BIOLOGY (CP)**

**Level: College Prep  
Credit: 2.5**

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

This course will focus on ecological processes of marine environments worldwide. The course will explore biological, chemical, and physical aspects of salt water environments and will examine several marine ecosystems including coral reefs, rocky and sandy shores, tidal flats, and salt water marshes. Through direct observation, species collection, and water analysis, students will develop an understanding of how processes such as species interaction, energy transfer, population growth, and water quality all impact upon these environments. Topics to be studied are ocean currents and upwelling, the benthic realm, the intertidal zone, the pelagic realm, plankton, nekton, marine mammals, deep sea adaptations and environmental issues. Laboratory work will include microscopy, dissection, and handling of models and live specimens.

### **344 MARINE BIOLOGY (H)**

**Level: Honors  
Credits: 2.5**

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

This course will focus on ecological processes of marine environments worldwide. The course will explore biological, chemical, and physical aspects of salt water environments and will examine several marine ecosystems including coral reefs, rocky and sandy shores, tidal flats, and salt water marshes. Through direct observations, species collection, and water analysis, students will develop an understanding of how processes such as species interaction, energy transfer, population growth, and water quality all impact upon these environments. Topics to be studied are ocean currents and upwelling, the benthic realm, the intertidal zone, the pelagic realm, plankton, nekton, marine mammals, and deep sea adaptations and environmental issues. Laboratory work will include microscopy, dissection, and handling of models and live specimens.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **366 NANOTECHNOLOGY (CP)**

**Level: College Prep, Student may**

**Contract for Honors**

**Credits: 2.5**

This laboratory course explores the relatively new science of nanotechnology, which is the study and use of materials with very small particles. The course covers how nanomaterials are made, measured, and handled. Students use models to help them understand how small nanomaterials are and how this gives them special properties. Students experiment with nanomaterials to explore these properties. Students develop their mastery of science and their reasoning skills by learning how scientists understand and work with materials that are too small to see directly. **Offered in Spring semester 2021 only**

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement or  
Technology/Engineering**

## **347 ENVIRONMENT AND SUSTAINABILITY(CP)**

**Level: College Prep**

**Credits: 2.5**

This is a discussion and project-based course designed to investigate the economy of nature and explore the condition of Earth's biosphere. The framework of the course is a student's conceptual and applied understanding of nature and an emphasis is placed on process and interconnectedness. The course topics include: living in harmony with the laws of the natural world, ecology versus environmentalism, renewable energy, "green" car technology, introduced species, endangered species, coral reef destruction, deforestation, global climate change from a cultural perspective, human overpopulation and urban sprawl, and pollution and waste disposal. Issues, case studies, and threats to a sustainable biosphere will be addressed through student-driven discourse and group presentations.

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

## **323 Biology Foundations**

**Level: College Prep**

**Credits: 2.5**

The units of study in this course align with the four content areas of the Massachusetts State Framework for Biology: molecules to organisms, ecosystems, heredity and biological evolution. Students will apply the eight science and engineering practices in a variety of content related laboratory exercises. These experiences will enable students to assess and understand the living world and their place in it. This course prepares eligible students for the Biology MCAS exam.

**Grade Level: 9**

**Prerequisites: Teacher Placement**

**Fulfills: Elective Credit**

## **SCIENCE ELECTIVES - ADVANCED PLACEMENT COURSES**

### **373 AP PHYSICS 1: ALGEBRA-BASED**

**Level: Advanced Placement**

**Credits: 7.5**

This course is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It also introduces electric circuits. The course stresses underlying concepts and understandings while making real life applications. Completion of summer review work is required. All students must take the AP Physics 1 exam.

**Grade Level: 11, 12**

**Prerequisites: Completion of Physics or  
Pre-Calculus or concurrent enrollment in  
Accelerated Pre-Calculus**

**Fulfills: Science Requirement**

### **392 AP CHEMISTRY**

**Level: Advanced Placement**

**Grade Level: 11, 12**

**Prerequisites: completion of or  
concurrent enrollment in Algebra II**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Credits: 7.5 current**

**Fulfills: Science Requirement**

This course emphasizes the theoretical aspects of college-level general chemistry through a quantitative and analytical approach. The primary objective of this course is to teach science as a method of reasoning, encouraging new questioning as well as seeking answers to established questions. To accomplish this, underlying concepts and understandings are stressed while making real life applications. Student work is centered in the laboratory. The unit topics include atomic structure and theory, chemical bonding, states of matter and major chemical principles. All students must take the AP Chemistry exam.

**381 AP BIOLOGY**

**Grade Level: 11, 12**

**Level: Advanced Placement**

**Prerequisites: Biology**

**Credits: 7.5**

**Fulfills: Science Requirement**

This college-level course in biology emphasizes the topics of molecular, cellular, organism, and population biology. It is designed for those students who plan to continue their post secondary studies in the biological studies. The primary objective of this course is to teach science as a method of reasoning, encouraging new questioning as well as seeking answers to established questions. To accomplish this, underlying concepts and understandings are stressed while making real life applications. Student work is centered in the laboratory. All students must take the AP Biology exam.

**367 AP Environmental Science**

**Grade Level: 11, 12**

**Level: Advanced Placement**

**Prerequisites: Biology**

**Credits: 7.5**

**Fulfills: Science Requirement**

This college level-course will provide students with the concepts required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, and to examine alternative solutions for resolving and/or preventing them. Topics to be covered in this course include ecosystems, geochemical cycles, climate, pollution, and energy resources and consumption. This course is a must for students who have an interest and passion in understanding the natural world and being part of the solution of sustainability on Earth. All students are required to take the AP Environmental science exam.

**### PLTW/AP Computer Science A**

**Grade Level: 11, 12**

**Level: Advanced Placement**

**Prerequisites: Biology**

**Credits: 6.0**

**Fulfills: Science Requirement**

Throughout the Computer Science A course experience, students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. PLTW is recognized by the College Board as an endorsed provider of curriculum and professional development for AP® Computer Science A (AP CSA). This endorsement affirms that all components of PLTW CSA's offerings are aligned to the AP Curriculum Framework standards and the AP CSA assessment.

## **SCIENCE ELECTIVES - PROJECT LEAD THE WAY (PLTW) COURSES**

**343 Project Lead the Way - PRINCIPLES of ENGINEERING**

**Grade Level: 11, 12**

**Level: College Prep, Student may contract for Honors**

**Prerequisites: None**

**Credits: 5.0**

**Fulfills: Science Requirement or  
Technology/Engineering Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

This full-year technology/engineering course involves lecture, reading, and laboratory experiments/projects. The guiding principle of the course is the Engineering Design Cycle which is threaded throughout the four projects/quarters. The curriculum integrates elements of math, technology, and science common to technology and engineering. Through this course's real-world connections, students solve problems related to concerns for our future. This course prepares students for the Technology/Engineering MCAS test.

**357 PROJECT LEAD THE WAY - Intro.to Engineering Design**  
**Level: College Prep, Student may contract for Honors**  
**Credits: 5.0**

**Grade Level: 11, 12**  
**Prerequisites: None**  
**Fulfills: Technology/Engineering and/or Science Requirement**

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software, and use an engineering notebook to document their work.

**359 PROJECT LEAD THE WAY - Principles of Biomedical Science**  
**Level: Honors**  
**Credits: 5.0**

**Grade Level: 9, 10, 11, 12**  
**Prerequisites: None**  
**Fulfills: Science Requirement**

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems. This course must be taken concurrently with Biology if taken in the Freshman year.

**368/368H Project Lead the Way - Human Body Systems**  
**Level: College Prep, Students may contract for Honors**  
**Credits: 5.0**

**Grade Level: 10,11, 12**  
**Prerequisites: Biology**  
**Fulfills: Science Requirement**

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Manikan ®; use data acquisition software to monitor body function such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases in this laboratory science course.

**### Project Lead the Way - Medical Interventions**  
**Level: College Prep, Students may contract for Honors**

**Grade Level: 11, 12**  
**Prerequisites: Biology, Principles of Biomedical Science**  
**Fulfills: Science Requirement**

**Credits: 5.0**

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

**369/369H Project Lead the Way - Computer Science Essentials**  
**Level: College Prep, Students may contract for Honors**  
**Credits: 5.0**

**Grade Level: 10, 11, 12**  
**Prerequisites: None**  
**Fulfills: Technology/Engineering;**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. This course utilizes the Project Lead the Way curriculum, MIT App Inventor, VEX Self Driving Vehicles, Python, AWS (Cloud 9)

## **SCIENCE COURSES NOT OFFERED 2021-2022**

### **349 GENERAL ZOOLOGY (CP)**

**Level: College Prep**

**Credits: 5.0**

This is a lecture and laboratory course designed to investigate and explore the structure, function, and diversity of animal life. The course topics include animal architecture, classification and phylogeny of animals, the phylum porifera (sponges), radiate animals (cnidarians and ctenophores), acoelomate animals (flatworms and ribbon worms), molluscs, segmented worms, arthropods, echinoderms, fishes, amphibians, reptiles, birds, and mammals. Laboratory will involve the classification and dissection of invertebrate and vertebrate specimens.

**Grade Level: 11, 12**

**Prerequisites: Biology, Chemistry**

**Fulfills: Science Requirement**

### **361 CHEMISTRY II (H)**

**Level: Honors**

**Credits: 5.0**

This second year course in chemistry emphasizes aspects of college-level general chemistry. Students work in the laboratory and use scientific reasoning to explain results. Students relate results to real life applications and chemical research. Topics include atomic structure and theory, chemical bonding, chemical reactions and stoichiometry, gasses, kinetics and equilibrium, and an introduction to organic chemistry.

**Grade Level: 11, 12**

**Prerequisites: Chemistry**

**Fulfills: Science Requirement**

### **628/628H Project Lead the Way - Cybersecurity**

**Level: College Prep, Students may contract for Honors**

**Credits: 5.0**

Whether seeking a career in the growing field of cybersecurity or learning to defend their own personal data or a company's data, students in Cybersecurity establish an ethical code of conduct while proactively defending data in today's complex cyberworld.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology/Engineering;**

### **358 AP Computer Science Principles**

**Level: Advanced Placement**

**Credits: 6.0**

With an emphasis on computational thinking and collaboration, this year-long course provides an excellent entry point for students to begin or continue the PLTW Computer Science K-12 experience. Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. In CS Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computer professionals do to create products that address topics and problems important to them.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Technology & Engineering OR Math OR Science Credit**

### **337 AMAZON Z (H)**

**Grade Level: 11, 12**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Level: Honors**  
**Credits: 2.5**

**Prerequisites: Biology & Chemistry.**  
**Fulfills: Science Requirement**

A seminar and field program that will afford a team of students the opportunity to develop a comprehensive understanding of the global significance that the Amazon has on maintaining a sustainable Earth for mankind. Although the program is grounded in ecological principles, an interdisciplinary emphasis will be made and the curriculum will enhance a student's understanding of and interconnectedness between:

- Conservation, sustainability, and environmental advocacy
- Leadership, government, policy, and international relations
- Cultural awareness/sensitivity
- Sustainable business practices

The program will be offered through Danvers High School and selected students will:

- **Engage** in a seminar phase that emphasizes ecology, environmental threats to the Amazon, the cascade effect of rainforest reduction/elimination, cultural impacts, global stewardship, and environmental advocacy/leadership.
- **Participate** in an expedition that will involve ecosystem immersion, ecosystem comparison (pristine vs. disturbed), site visits, village visits/cultural interaction/interviews with local/native peoples, and instructional sessions with educators, native guides, and professional experts.
- **Develop and present** a capstone talk, communicating the local and global consequences of Amazon rainforest reduction and elimination. Further, potential solutions to the issues that threaten the sustainability of the Amazon will be offered. The talk will be presented locally at Danvers High School and shared universally via the Internet.

**ENROLLMENT:** Each prospective student and an accompanying parent/guardian must attend the winter 2020 Introduction to Amazon Z, to be considered eligible for the program. Program participation is highly selective and involves a personal statement of interest, supporting letters of reference, and an interview with the instructor. A limit of 14 students will be selected for the program

## **MATH**

The goal of the mathematics program in Danvers is to teach mathematics for understanding and appreciation. To achieve this goal, the department employs the following mathematical processes: problem solving, reasoning and proof, oral and written communication, connections within the discipline/across the disciplines/to the real world, and the use of multiple representations. The Math department provides students with learning experiences to achieve the following school-wide expectations: students will be critical thinkers who locate, analyze, evaluate, and synthesize information; and students will work independently and collaboratively to accomplish goals.

**The mathematics department requires all students to purchase a graphing calculator for use in their mathematics classes.** Although the school can provide some for use in the classroom, students are required to have their own personal graphing calculator for use at home and on critical tests. It is important to note that the graphing calculator is permitted for use on the MCAS, PSAT, SAT, SAT II, AP, and ACT exams.

### Recommended Sequence of Study

	ADVANCED PLACEMENT	HONORS	COLLEGE PREP
--	-----------------------	--------	--------------



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

<b>Freshman</b>	Geometry (H)	Algebra I (H)	Algebra I (CP)  Algebra I Fundamentals (CP)
<b>Sophomore</b>	Algebra II (H)  Accelerated Algebra II (H)	Geometry (H) <i>(Geometry and Algebra II can be taken simultaneously to gain access to advanced mathematics courses)</i>	Geometry (CP) Geometry Fundamentals
<b>Junior</b>	Pre-Calculus (H)  Accelerated Pre-Calculus (H) <i>(May simultaneously take AP Statistics)</i>	Algebra II (H)  <i>(May simultaneously take AP Statistics)</i>	Algebra II (CP)  Intermediate Algebra II (CP)
<b>Senior</b>	AP Calculus BC  AP Calculus AB  Intro to Calculus (H) AP  Statistics	Accelerated Pre-Calculus (H)  AP Statistics  Intro to Probability and Statistics (CP)  Math Modeling (CP)	Pre-Calculus (CP)  AP Statistics  Intro to Probability and Statistics (CP)  Math Modeling (CP)  Algebra II (CP)  Advanced Algebra II /Trigonometry (CP)

## 411 ALGEBRA I (H)

Level: Honors

Credits: 5.0

Grade Level: 9

Prerequisites: None

Fulfills: Math Requirement

The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, the course emphasizes the discovery of algebra through modeling, focusing on four critical areas: deepening and extending understanding of linear and exponential relationships; contrasting linear and exponential relationships with each other and engaging in methods for analyzing, solving, and using quadratic functions; extending the laws of exponents to square and cube roots; and applying linear models to data that exhibit a linear trend. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **412 ALGEBRA I (CP)**

**Level: College Prep**

**Credits: 5.0**

**Grade Level: 9**

**Prerequisites: None**

**Fulfills: Math Requirement**

The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, the course emphasizes the discovery of algebra through modeling, focusing on four critical areas: deepening and extending understanding of linear and exponential relationships; contrasting linear and exponential relationships with each other and engaging in methods for analyzing, solving, and using quadratic functions; extending the laws of exponents to square and cube roots; and applying linear models to data that exhibit a linear trend. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

## **419 ALGEBRA I FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: Math Requirement**

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on MCAS preparation as well as the fundamentals of Algebra through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include operations with real numbers, expressions, linear equations and inequalities, polynomials, quadratic equations, exponents and simultaneous equations. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

## **424 GEOMETRY (H)**

**Level: Honors**

**Credits: 5.0**

**Grade Level: 9, 10**

**Prerequisites: Algebra I**

**Fulfills: Math Requirement**

The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, the course emphasizes the discovery of geometry through modeling, focusing on six critical areas: establishing criteria for congruence of triangles based on rigid motions; establishing criteria for similarity of triangles based on dilations and proportional reasoning; informally developing explanations of circumference, area, and volume formulas; applying the Pythagorean Theorem to the coordinate plane; proving basic geometric theorems; and extending work with probability. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

## **422 GEOMETRY (CP)**

**Level: College Prep**

**Credits: 5.0**

**Grade Level: 10**

**Prerequisites: Algebra I**

**Fulfills: Math Requirement**

The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, the course emphasizes the discovery of geometry through modeling, focusing on six critical areas: establishing criteria for congruence of triangles based on rigid motions; establishing criteria for similarity of triangles based on dilations and proportional reasoning; informally developing explanations of circumference, area, and volume formulas; applying the Pythagorean Theorem to the coordinate plane; proving basic geometric theorems; and extending work with probability. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

## **439 GEOMETRY FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

**Grade Level: 10**

**Prerequisites: Special Education Team Decision**

**Fulfills: Math Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on MCAS preparation as well as the fundamentals of Geometry through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include basic geometric terms and notations, congruence, parallelism, circles, area and perimeter, similarity, right triangles, 3D figures, and quadrilaterals. *Appropriate use of technology is encouraged throughout the course, and students are required to have a calculator.*

### **436 ACCELERATED ALGEBRA II (H)**

**Level: Accelerated (receives 10% weight)**

**Credits: 5.0**

This course is designed for students who are interested in pursuing AP Calculus BC. The unit topics include statistics, graphing functions, transformations, solving algebraic equations, systems of equations and inequalities, and real-world applications for a variety of function families including trigonometric, polynomial, radical, rational, exponential and logarithmic. The depth of conceptual understanding of the underlying mathematical patterns, structures and concepts will be developed through hands-on learning activities, proofs, and justifications of methods. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level: 10**

**Prerequisites: Teacher Recommendation**

**Fulfills: Math Requirement**

### **431 ALGEBRA II (H)**

**Level: Honors**

**Credits: 5.0**

This course builds on the student's previous course work in Algebra I and Geometry. The unit topics include statistics, graphing functions, transformations, solving algebraic equations, systems of equations and inequalities, and real-world applications for a variety of function families including trigonometric, polynomial, radical, rational, exponential and logarithmic. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level: 10, 11, 12**

**Prerequisites: Algebra I, Geometry**

**Fulfills: Math Requirement**

### **432 ALGEBRA II (CP)**

**Level: College Prep**

**Credits: 5.0**

This course builds on the student's previous course work in Algebra I and Geometry. The unit topics include statistics, graphing functions, transformations, solving algebraic equations, systems of equations and inequalities, and real-world applications for a variety of function families including trigonometric, polynomial, radical, rational, exponential and logarithmic. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level: 10, 11, 12**

**Prerequisites: Algebra I, Geometry**

**Fulfills: Math Requirement**

### **420 ALGEBRA II FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0 Team Decision**

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on the fundamentals of Algebra through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include graphing and evaluating expressions using the following families of functions: polynomial (linear, quadratic, cubic), exponential growth and decay, rational, trigonometric and logarithmic functions. Students will also use graphical and algebraic methods of solving systems of equations that model real world situations. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 Plus preferred).*

**Grade Level: 11**

**Prerequisites: Special Education Decision**

**Fulfills: Math Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **440 ACCELERATED PRE-CALCULUS (H)**

**Level:** Accelerated (receives 10% weight)

**Credits:** 5.0

This course is designed for students who are interested in pursuing AP Calculus at the BC level. The course emphasizes advanced algebra, plane trigonometry, functions from analytic geometry, and the foundations of calculus. The primary objective of this course is to teach mathematics as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making connections to real life applications. The unit topics include polynomial, rational, exponential, logarithmic, and trigonometric functions, polar coordinates, parametric equations, vectors, limits, and derivatives. *Appropriate use of technology is required throughout the course, so students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level:** 11

**Prerequisites:** Teacher Recommendation

**Fulfills:** Math Requirement

## **441 PRE-CALCULUS (H)**

**Level:** Honors

**Credits:** 5.0

This course prepares students for AP Calculus or Honors Calculus by emphasizing plane trigonometry and functions from analytic geometry. The primary objective of this course is to teach mathematics as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making connections to real life applications. The unit topics include trigonometry, polynomial functions, rational functions, logarithmic functions, and exponential functions. Additional topics may include: matrices, parametric equations, polar functions, vectors, and conic sections. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level:** 11, 12

**Prerequisites:** Algebra II

**Fulfills:** Math Requirement

## **442 PRE-CALCULUS (CP)**

**Level:** College Prep

**Credits:** 5.0

This course emphasizes plane trigonometry and functions and topics from analytic geometry. The primary objective of this course is to teach mathematics as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making connections to real life applications. The unit topics include trigonometry, polynomial functions, rational functions, logarithmic functions, and exponential functions. Additional topics may include: matrices, parametric equations, polar functions, vectors, and conic sections. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**Grade Level:** 11, 12

**Prerequisites:** Algebra II

**Fulfills:** Math Requirement

## **450 INTRODUCTION TO PROBABILITY AND STATISTICS (CP)** **Grade Level:** 12

**Level:** College Prep *required for seniors to take this course concurrently with Algebra II*

**Credits:** 5.0

This course uses investigation, projects, group work, student presentations, and writing to have students focus on probability, set up statistical investigations, and interpret data. The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making real life applications. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred) and access to a computer.*

**Fulfills:** Math Requirement

## **455 MATH MODELING (CP)**

**Grade Level:** 12



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Level: College Prep Prerequisites: Algebra II (*may take concurrently*)**

**Credits: 5.0**

**Fulfills: Math Requirement**

This course is designed as a fourth-year mathematics course that will focus on the Common Core Standards for Mathematical Practice. A variety of real-world applications will be examined using a modeling focus. The course is appropriate for students who are likely to take a college algebra course but who are not planning to study calculus in college. The modeling focus will prepare students to use mathematics skills and quantitative approaches to problem solving in various disciplines. *Appropriate use of technology is encouraged throughout the course.*

## **451 INTRODUCTION TO CALCULUS (H)**

**Level: Honors**

**Credits: 5.0**

**Grade Level: 12**

**Prerequisites: Pre-Calculus**

**Fulfills: Math Requirement**

This course emphasizes the study of differential and integral calculus with their many applications. The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making real life applications. The unit topics include functions, limits, derivatives, maximum and minimum theory, integral calculus, and exponential and logarithmic functions. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

## **ADVANCED PLACEMENT COURSES**

### **459 AP CALCULUS AB**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 11,12**

**Prerequisites: Pre-Calculus**

**Fulfills: Math Requirement**

This college-level course is designed to develop the student's understanding of the concepts of calculus and provide experiences with its methods and applications. The course emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator.* All students must take the AP Calculus AB exam.

### **460 AP STATISTICS**

**Level: Advanced Placement**

**Credits: 6.0**

**Grade Level: 10, 11, 12**

**Prerequisites: Sophomores and Juniors must be enrolled in Algebra II or Pre-Calculus concurrently**

**Fulfills: Math Requirement**

This course is equivalent to a one-semester college statistics class. The purpose of the AP course in statistics is to introduce the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The following topics will be explored: summarization and graphing of data, use of the normal distribution and other probability distributions to model data, the central limit theorem, confidence intervals, hypothesis testing, regression and correlation calculations, and mathematical models. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).* All students must take the AP Statistics exam.

### **461 AP CALCULUS BC**

**Level: Advanced Placement**

**Grade Level: 11,12**

**Prerequisites: Pre-Calculus**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Credits: 6.0**

**Fulfills: Math Requirement**

AP Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all the topics covered in Calculus AB plus additional topics including convergence tests for series, Taylor and/or Maclaurin series, the use of parametric equations, polar functions, including arc length in polar coordinates, calculating curve length in parametric and function ( $y = f(x)$ ) equations, L'Hôpital's rule, integration by parts, improper integrals, Euler's method, differential equations for logistic growth, and using partial fractions to integrate rational functions. The content of Calculus BC is designed to qualify the student for placement and credit in a college course that is one beyond that granted for Calculus AB. A Calculus AB subscore grade is reported based on performance on the portion of the Calculus BC Exam devoted to Calculus AB topics. *Appropriate use of technology is required throughout the course, and students are required to have a graphing calculator.* All students must take the AP Calculus BC exam.

## **MATH COURSES NOT OFFERED 2021-2022**

**430 ALGEBRA/GEOMETRY REVIEW (CP) Grade Level: 11, 12**

**Level: College Prep Prerequisites: Algebra I, Geometry, *Seniors must be* Credits: 5.0 *concurrently enrolled in Algebra II* Fulfills: Math Requirement**

This course emphasizes selected topics in algebra and geometry based on the individual needs of the students. The primary objective of this course is to teach math as a method of reasoning and problem solving. To accomplish this, underlying concepts and understandings are stressed while making real life applications. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 Plus preferred).* **This course may not meet the admissions requirements of Massachusetts state universities.**

**438 Intermediate Algebra II (CP) Grade Level: 11**

**Credits 5.0 Prerequisites: Algebra 1, Geometry** This course builds on the student's previous course work in Algebra 1 and Geometry. Applications of mathematical topics are used to help students to strengthen their understanding of linear patterns and structure, measures of central tendency and probability. Applications of quadratic and exponential functions round out their mathematical skills and prepare students for future coursework in Advanced Algebra. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*

**458 Advanced Algebra II/Trigonometry (CP) Grade Level: 12**

**Credits 5.0 Prerequisites: Algebra 1, Geometry, Intermediate Algebra II**

This course builds on the student's previous course work in Geometry and Intermediate Algebra. Connections to real life applications are emphasized while students explore polynomials, rational functions, sequences and series, logarithmic functions, and trigonometric functions. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 preferred).*



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **WORLD LANGUAGES**

The Danvers World Language Department is a passionate and collaborative team that seeks to empower students with linguistic and cultural literacy. We open minds to the larger global community and cultivate the ability to appreciate and interact with diverse cultures. Our students will develop the confidence and ability to communicate in the target language and use it in the real world.

### **Program of Studies Overview**

Successful completion of two consecutive years of the same world language is a graduation requirement. Achieving proficiency in a world language is an essential life skill in our rapidly changing and ever shrinking world. Therefore, we highly recommend that students take three or four consecutive years of study in a second language; most universities and colleges make a similar recommendation. Students should consider learning an additional second language as their schedule permits. French and Spanish are currently offered at all grade levels.

All Danvers High School language courses are aligned to the Massachusetts State Frameworks and the ACTFL Proficiency Guidelines. Courses are taught using a proficiency-based approach, with the majority of instruction delivered in the target language. Listening, reading, writing and speaking skills are emphasized in all language courses. Students access both the target language and culture through three modes of communication: *Interpersonal* (two-way, unrehearsed communication between individuals); *Interpretive* (one-way communication using receptive skills of listening and reading); and *Presentational* (one-way communication using productive skills of speaking and writing). Student success is measured on performance assessments.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## Recommended Program Sequence

<b>French</b>	Intermediate 1 → Intermediate 2 → Intermediate 3 → AP French OR French through the Arts
---------------	---

### FRENCH

#### 520 FRENCH INTERMEDIATE I

Level: Honors  
equivalent

Credits: 5.0

Grade Level: 9, 10, 11, 12

Prerequisites: Middle School French or

Fulfills: World Language Requirement

This intermediate course is designed for students who have successfully completed Beginner French. The course will be conducted in French as much as possible and students are expected to communicate in French as well. Students will develop proficiency in the 4 skills of reading, writing, speaking, and listening and will experience culture through the use of authentic resources. Themes may include but are not limited to food, health and daily life. This course will prepare students to take Intermediate 2.

#### 508 FRENCH INTERMEDIATE II

Level: Honors

Credits: 5.0

Grade Level: 10, 11, 12

Prerequisites: French I (H)

Fulfills: World Language Requirement

This intermediate course is designed for students who have successfully completed Intermediate 1. The course will be conducted in French and students are expected to communicate in French as well. Students will develop proficiency in the four skills of reading, writing, speaking, listening and will experience culture through the use of authentic resources. Themes may include city life and the media. This course will prepare students to take Intermediate 3.

#### 509 FRENCH INTERMEDIATE III

Level: Honors

Credits: 5.0

Grade Level: 11, 12

Prerequisites: French II (H)

Fulfills: World Language Requirement

This intermediate course is designed for students who have successfully completed Intermediate 2. The course will be conducted in French and students are expected to communicate in French as well. Students will develop proficiency in the four skills of reading, writing, speaking, listening and will experience culture through the use of authentic resources. Themes may include family, work and technology. This course will prepare students to take either Advanced Placement French or French through the Arts.

#### 510 French through the Arts

Level: Honors

Credits: 5.0

Grade Level: 12

Prerequisites: Intermediate 3

Fulfills: World Language Requirement

This advanced course is designed for students who have successfully completed Intermediate 3. The course will



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

be conducted in French and students are expected to communicate in French as well. Students will develop proficiency in the four skills of reading, writing, speaking, listening and will experience culture through the use of authentic resources. Themes may include visual arts, literature, and music.

## 517 AP FRENCH LANGUAGE AND CULTURE

Level: Advanced Placement

Credits: 6.0

Grade Level: 12

Prerequisites: French IV (H)

Fulfills: World Language Requirement

As the culmination of the departmental sequence, this advanced course is designed for students who have successfully completed Intermediate 3H. The course will be conducted in French and students are expected to communicate exclusively in French as well. Students will continue to develop their proficiency in speaking, reading, writing, and listening. The course is organized into thematic units that integrate the following six essential themes from the College Board: Beauty and Aesthetics, Families and Communities, Personal and Public Identities, Contemporary Life, Science and Technology, and Global Challenges. Summer work is a mandatory component of this course. AP French will offer students the opportunity to earn the Seal of Bilingualism by taking both the AAPPL Exam (January) as well as the AP College Board exam (May).

## SPANISH : Recommended Program Sequence

<u>First course in program at DHS</u>	<u>Recommended sequence after first year</u>
Beginner 1 →	Beginner 2 → Intermediate 1 → Intermediate 2
Beginner 2 →	Intermediate 1 → Intermediate 2 → Intermediate 3
Intermediate 1 →	Intermediate 2 → Intermediate 3 → AP Spanish OR Latin American Culture & Film OR Contemporary Topics & Conversation

## 501 SPANISH BEGINNER I

Level: College Prep

Credits: 5.0

Grade Level: 9, 10, 11

Prerequisites: None

Fulfills: World Language Requirement

This introductory course is designed for students with no previous instruction in Spanish. The course will be conducted in the target language as much as possible and students are expected to communicate in the target language as well. Students will develop proficiency in the four skills: reading, writing, speaking, and listening. Students will experience culture through the use of authentic resources. Themes may include but are not limited to: Hobbies and pastimes, personal identity, school life and academics, food and beverages, and families. This course will prepare students to take Beginner 2.

## 502 SPANISH BEGINNER II

Level: College Prep

Credits: 5.0

Grade Level: 9, 10, 11

Prerequisites: Beginner 1 or Middle School Equivalent

Fulfills: World Language Requirement

This introductory course is designed for students who have successfully completed Beginner 1 Spanish. The



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

course will be conducted in the target language as much as possible and students are expected to communicate in the target language as well. Students will develop proficiency in the four skills: reading, writing, speaking, and listening. Students will experience culture through the use of authentic resources. Themes may include but are not limited to: clothing, places around town and the house, festivities and celebrations, sports and games, and staying healthy. This course will prepare students to take Intermediate 1.

## **503 SPANISH INTERMEDIATE I**

**Level: Honors**

**Credits: 5.0**

This intermediate course is designed for students who have successfully completed Beginner 2. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will develop proficiency in the four skills of reading, writing, speaking, and listening and will experience culture through the use of authentic resources. Some themes may include but are not limited to: food and dining out, staying healthy, daily life, civilizations and legends. This course will prepare students to take Intermediate 2.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Beginner 2 or Middle School Equivalent**

**Fulfills: World Language Requirement**

## **504 SPANISH INTERMEDIATE II (H)**

**Level: Honors**

**Credits: 5.0**

This honors level intermediate course is designed for students who have successfully completed the Intermediate 1 course. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will develop proficiency in the four language skills of reading, writing, speaking and listening. Students will experience culture through the use of authentic resources such as infographics, short videos, articles and songs. Themes include outdoor activities, family and family traditions, community service and environmental awareness. This course will prepare students to take the Intermediate 3 Honors course.

**Grade Level: 10, 11, 12**

**Prerequisites: Intermediate 1**

**Fulfills: World Language Requirement**

## **505 INTERMEDIATE II (CP)**

**Level: College Prep**

**Credits: 5.0**

This college prep level intermediate course is designed for students who have successfully completed the Intermediate 1 course. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will develop proficiency in the four language skills of reading, writing, speaking and listening. Students will experience culture through the use of authentic resources such as infographics, short videos, articles and songs. Themes include outdoor activities, family and family traditions, community service and environmental awareness. This course will prepare students to take the Intermediate 3 College Prep course.

**Grade Level: 10, 11, 12**

**Prerequisites: Intermediate 1**

**Fulfills: World Language Requirement**

## **506 SPANISH INTERMEDIATE III (H)**

**Level: Honors**

**Credits: 5.0**

This intermediate course is designed for students who have successfully completed the Intermediate 2 course. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will continue to develop proficiency in the four skills of reading, writing, speaking, and listening. Students will experience culture through the use of authentic resources. Themes may include (but are not limited to) professions, school and career activities, international travel, and modern technology. This course will prepare students to enroll in AP Spanish Language and Culture or Latin American Culture and

**Grade Level: 11, 12**

**Prerequisites: Intermediate 2**

**Fulfills: World Language Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Film.

## **543 SPANISH INTERMEDIATE III (CP)**

**Level: College Prep**

**Credits: 5.0**

This intermediate course is designed for students who have successfully completed the Intermediate 2CP course. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will continue to develop proficiency in the four skills of reading, writing, speaking, and listening. Students will experience culture through the use of authentic resources. Themes may include (but are not limited to) professions, school and career activities, international travel, and modern technology. This course will prepare students to enroll in Contemporary Topics and Conversation.

**Grade Level: 11, 12**

**Prerequisites: Intermediate 2**

**Fulfills: World Language Requirement**

## **571 AP SPANISH LANGUAGE**

**Level: Advanced Placement**

**Credits: 6.0**

As the culmination of the department sequence, this advanced course is designed for students who have successfully completed Intermediate 3H. The course will be conducted in the target language and students are expected to communicate exclusively in the target language as well. Students will continue to develop their proficiency in speaking, reading, writing, and listening at the Intermediate High level. The course is organized into thematic units that integrate the following six essential themes from the College Board: Beauty and Aesthetics, Families and Communities, Personal and Public Identities, Contemporary Life, Science and Technology, and Global Challenges. Summer work is a mandatory component of this course, and will offer students the opportunity to earn the Seal of Biliteracy by taking both the AAPPL Exam (January) as well as the AP College Board exam (May).

**Grade Level: 12**

**Prerequisites: Intermediate 3H**

**Fulfills: World Language Requirement**

## **534 LATIN AMERICAN CULTURE AND FILM**

**Level: Honors**

**Credits: 5.0**

This advanced course is designed for students who have successfully completed Intermediate 3 coursework. The course will be conducted in the Spanish and students are expected to communicate in Spanish as well. Students will develop proficiency in the four skills of reading, writing, speaking, and listening. Students will experience culture through the use of authentic resources such as full length feature films, newspaper articles, video clips, dramas and short stories. Themes may include indigenous cultures, dictatorships, immigration, and migration.

**Grade Level: 12**

**Prerequisites: Intermediate 3**

**Fulfills: World Language Requirement**

## **535 CONTEMPORARY TOPICS AND CONVERSATION**

**Level: College Prep**

**Credits: 5.0**

This advanced course is designed for students who have successfully completed Intermediate 3 coursework. The course will be conducted in Spanish as much as possible and students are expected to communicate in Spanish as well. Students will continue to develop proficiency in the four skills of reading, writing, speaking, and listening. Students will examine a variety of topics over the course of the year including social justice issues in the Hispanic world, current affairs and exploring cultural aspects of Latin America.

**Grade Level: 12**

**Prerequisites: Intermediate 3**

**Fulfills: World Language Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **APPLIED TECHNOLOGY EDUCATION**

The objective of the Applied Technology Department is to ensure that our high school graduates will be ready to meet the demands of college or the high-tech workforce of today. The Applied Technology Education department provides students with learning experiences to achieve the following school-wide expectations: students will demonstrate creativity; students will understand how to use technology effectively and appropriately; and students will work independently and collaboratively to accomplish goals. The courses have been designed to accomplish the following:

- Prepare students to become creative and active users of technology as a communication, problem solving, presentation, connectivity, and learning tool;
  - Assist the student in making decisions that will benefit their personal and professional lives; •
- Instill in our students the desire for lifelong learning.

- **PROJECT LEAD the WAY COURSES:** Project Lead The Way courses provide a transformative learning experience for K-12 students and teachers across the U.S. PLTW creates an engaging classroom environment and empowers students to develop and apply in-demand, transportable skills by exploring real-world challenges. Through pathways in computer science, engineering, and biomedical science, students not only learn technical skills, but also learn to solve problems, think critically and creatively, communicate, and collaborate.

Engineering Technology	Communications Technology	Computer Technology	Business Technology
Robotics and Computer Control Systems	Television Production I	Introduction to Computer Science	Introduction to Business
Engineering Technology	Advanced Television Production	Computer Programming I	Marketing Principles
<u>AMP-IT-UP</u> 3D Printing / CNC - Foundations of Design	Television Seminar	PLTW - Computer Science Principles	DECA 1: Business Marketing & Management
<u>AMP-IT-UP</u> 3D Printing / CNC - Design and Development	Broadcast Journalism		DECA 2: Innovation, Leadership & Communication



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

CAD for Architecture			Accounting I
PLTW - Intro to Engineering Design			Personal Finance
PLTW - Principles of Engineering			Sports & Entertainment Management
Manufacturing Design I and II			Cooperative Training Option
PLTW:Computer Integrated Manufacturing			

## ENGINEERING TECHNOLOGY

Engineering technology education is an activity-based, essential learning experience for all students so that they may use, manage, and understand technology. All courses promote academic, technical, and social growth through concrete experiences that result from the integration of mathematics, science, humanities, and a creative problem solving process. Student projects involve the safe use of tools, materials, and procedures in a congenial atmosphere.

**706 ENGINEERING TECHNOLOGY (CP)**  
**Level: College Prep, Student may contract for Honors**  
**Credits: 2.5**

**Grade Level: 9, 10, 11, 12**  
**Prerequisites: None**  
**Fulfills: Technology Requirement**

This is a project-based learning experience that is rich with activities. Classes are conducted in a laboratory environment where students actively participate in the research, design, and development of projects relevant to the field of engineering. A wide range of topics involves the study of creative invention, building construction, transportation systems, and alternative energy systems. Student projects may include the construction of a submersible remote controlled vehicle, a gliding hovercraft, a wind turbine, and much more.

**604 ROBOTICS & COMPUTER CONTROL SYSTEMS (CP)**  
**Level: College Prep, Student may contract for Honors**  
**Credits: 2.5**

**Grade Level: 9, 10, 11, 12**  
**Prerequisites: None**  
**Fulfills: Technology & Engineering Rqmt**

This course will explore the theory, technique, and practice behind mobile robotic systems. The course uses hardware, software, and mechanical tools to investigate the issues and ideas associated with these systems, including robot design and construction techniques, software design, and collaboration. Students will participate through research, lab work, and personal group projects.

**728/728H AMP-IT-UP 3D Printing / CNC - Principles of Design (CP)** **Grade Level: 9, 10, 11, 12**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**Level: College Prep, Student may contract for Honors**  
**Credits: 2.5**

**Prerequisites: None**

**Fulfills: Technology & Engineering Rqmt**

Students will practice their Design skills through 3D printing/modeling using OnShape/Fusion 360 software that interfaces with a **3D printer and CNC Milling Machines**. Students will design and create 3D models using the same design tools and techniques used by professionals. For example, students will design and then create their own light switch covers, pens, and even the toothbrush of the future! Students will acquire sketching and drawing skills, create single and multi-view drawings, and create three-dimensional drawings and plans. Prototypes will be created by **3D printers** and CNC milling machines in the design lab setting. This course is an excellent choice for students considering careers in design, architecture, engineering, manufacturing or fabrication.

**729/729H AMP-IT-UP 3D Printing / CNC - Design and Development (CP) Grade Level: 9, 10, 11, 12**

**Level: College Prep, Student may contract for Honors**

**Prerequisites: None**

**Credits: 2.5**

**Fulfills: Technology & Engineering**

**Rqmt**

Students will practice their Design skills through 3D printing/modeling using OnShape/Fusion 360 software that interfaces with a **3D printer and CNC Milling Machines**. Students will be tasked with designing and prototyping multi-step, multi-part designs in creating 3D models using the same design tools and techniques used by professionals. For example, students will be challenged to design and then prototype a SMART Seat of the Future, a rubber-band driven car, as well as a balloon powered locomotive. Students will acquire sketching and drawing skills, create single and multi-view drawings, and create three-dimensional drawings and plans. Prototypes will be created by **3D printers** and CNC milling machines in the design lab setting. This course is an excellent choice for students considering careers in design, architecture, engineering, manufacturing or fabrication.

**716 MANUFACTURING DESIGN I (CP)**

**Grade Level: 9, 10, 11, 12**

**Level: College Prep**

**Prerequisites: None**

**Credits: 2.5**

**Fulfills: Technology & Engineering Rqmt**

This course introduces the student to the fundamentals of manufacturing and design utilizing both state of the art power machinery and traditional hand tools. Students will learn how to take a CAD design and build a furniture product by implementing all tools in the manufacturing process. The overall goal of the course is to take raw lumber and produce a finished product; while introducing students to some of the most common machine and hand tools used in woodworking. Students will learn how to safely operate, table saws, jointers, band saws, planners, mechanical sanders, ect. At the bench students will learn how to correctly use hand tools such as paring chisels, hand planes, and marking gauges with reference to concepts such as the importance of flat and square. In addition, understanding the characteristics of wood movement and traditional mortise and tenon wood joinery. **Project focus: drop-leaf table in the arts and crafts tradition and other designs.**

**714 MANUFACTURING DESIGN II**

**Grade Level: 9, 10, 11, 12**

**Level: College Prep**

**Prerequisites: None**

**Credits: 2.5**

**Fulfills: Technology & Engineering Rqmt**

**Students can take this course as an introduction or as a continuation of Manufacturing and Design Fall.**

This course introduces the student to the fundamentals of manufacturing and design utilizing both state of the art power machinery and traditional hand tools. Students will learn how to take a CAD design and build a furniture product by implementing all tools in the manufacturing process. The overall goal of the course is to take raw lumber and produce a finished product; while introducing students to some of the most common



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

machine and hand tools used in woodworking. Students will learn how to safely operate, table saws, jointers, band saws, planners, mechanical sanders, ect. At the bench students will learn how to correctly use hand tools such as paring chisels, hand planes, and marking gauges with reference to concepts such as the importance of flat and square. In addition, understanding the characteristics of wood movement and traditional mortise and tenon wood joinery. **Project focus: Shaker style end table, and other designs.**

## **725 CAD FOR ENGINEERING (CP)**

**Level: College Prep, Student may contract for honors**

**Credits: 2.5**

This is an introductory course that acquaints students with 3D modeling using OnShape software that interfaces with a 3D printer. Students will design and create 3D models using the same design tools and techniques used by professionals. Students will acquire sketching and drawing skills, create single and multi-view drawings, draw geometric figures to scale, and create three-dimensional drawings and plans. Prototypes will be created with a 3D printer and in a shop setting from designs students create. This course is an excellent choice for students considering careers in engineering, architecture, or design.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology & Engineering Rqmt**

## **629/629H PLTW: Computer Integrated Manufacturing (CP)**

**Level: College Prep, Student may contract for honors**

**Credits: 5**

CIM deepens the skills and knowledge of an engineering student within the context of efficiently creating products all around us. Students will build upon their CAD experience through the use of Computer Aided Manufacturing (CAM) software. CAM transforms a digital design into a program that our 3D Printers and Computer Numerical Controlled (CNC) mills use to transform raw material into products designed by the students. Students will learn and apply concepts related to integrating robotic systems and robotic arms into manufacturing processes.

**Grade Level: 11, 12**

**Prerequisites: PLTW IED or POE, Manufact. Design, or Amp It Up course**

**Fulfills: Technology & Engineering Rqmt**

## **727 CAD FOR ARCHITECTURE (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 2.5**

Students will design and draw in-depth house plans using the architectural software program Vectorworks. The design will be a two-story residential structure with all interior and exterior walls including door and window openings. Each plan will include two-dimensional and three-dimensional printouts complete with all necessary dimensions to build the structure. Students will complete a 3D colored model of their house design along with elevation plans.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None for Honors**

**Fulfills: Technology & Engineering Rqmt**

## **357 PROJECT LEAD THE WAY - Intro.to Engineering Design**

**Level: College Prep, Student may contract for Honors**

**Credits: 5.0 Science Rqmt**

**Rqmt**

Students dig deep into the engineering design process, applying math, science, and engineering standards to

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Tech/Engineering and/or Science**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software, and use an engineering notebook to document their work.

**343 Project Lead the Way - PRINCIPLES of ENGINEERING**  
**Level: College Prep, Student may contract for Honors**  
**Credits: 5.0**

**Grade Level: 11, 12**  
**Prerequisites: None**  
**Fulfills: Science Requirement or**  
**Technology/Engineering Rqmt**

This full-year technology/engineering course involves lecture, reading, and laboratory experiments/projects. The guiding principle of the course is the Engineering Design Cycle which is threaded throughout the four projects/quarters. The curriculum integrates elements of math, technology, and science common to technology and engineering. Through this course's real-world connections, students solve problems related to concerns for our future. This course prepares students for the Technology/Engineering MCAS test.

## **BUSINESS AND COMPUTER TECHNOLOGY**

The goals of the Business and Computer Technology department are to prepare students to become: • creative and active users of technology as a problem solving, presentation, connectivity, and learning tool; • individuals capable of making astute economic decisions that will benefit their personal and professional lives.

To achieve these goals, we require the students to demonstrate:



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

- efficient and effective use of computers and applications;
- an understanding of the various business content areas and how they interrelate; •
- the ability to manage their personal finances.

## COMPUTER TECHNOLOGY

### **603 INTRODUCTION TO COMPUTER SCIENCE**

**Level: College Prep**

**Credits: 2.5**

This semester long course will focus on introducing students to the world of computer science. Students will use programs such as Edison and Code.org to develop block coding skills. These skills will be used to not only program robots but also as foundational skills to learn more complex programming.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology & Engineering**

### **369/369H Project Lead the Way - Computer Science Essentials**

**Level: College Prep, Students may contract for Honors**

**Credits: 5.0**

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. This course utilizes the Project Lead the Way curriculum, MIT App Inventor, VEX Self Driving Vehicles, Python, AWS (Cloud 9)

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology/Engineering;**

## **TECH ED COURSES NOT OFFERED IN 2021-2022**

### **358 AP Computer Science Principles**

**Level: Advanced Placement**

**Credits: 6.0**

With an emphasis on computational thinking and collaboration, this year-long course provides an excellent entry point for students to begin or continue the PLTW Computer Science K-12 experience. Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. In CS Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computer professionals do to create products that address topics and problems important to them.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Technology & Engineering OR  
Math OR Science Credit**

### **628/628H Project Lead the Way - Cybersecurity**

**Level: College Prep, Students may contract for Honors**

**Credits: 5.0**

Whether seeking a career in the growing field of cybersecurity or learning to defend their own personal data or a company's data, students in Cybersecurity establish an ethical code of conduct while proactively defending data in today's complex cyberworld.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology/Engineering**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **BUSINESS**

### **DECA**

According to the DECA website, “DECA prepares emerging leaders and entrepreneurs for careers in marketing, finance, hospitality and management in high schools and colleges around the globe . . .” DECA enhances the preparation for college and careers by providing co-curricular programs that integrate into classroom instruction, applying learning in the context of business, connecting to business and the community and promoting competition. Our student members leverage their DECA experience to become academically prepared, community oriented, professionally responsible, experienced leaders.”

Students enrolled in the following Danvers High School courses are eligible to participate: Accounting I, Marketing Principles, Personal Finance, Sports and Entertainment Management, Introduction to Business, DECA 1: Business Marketing and Management, and DECA 2: Innovation, Leadership, and Communication. Students who were in DECA the previous year are able to compete as alumni members.

### **613 MARKETING PRINCIPLES (CP)**

**Level:** College Prep, Student may contract  
for Honors

**Credits:** 5.0

**Grade Level:** 10, 11, 12

**Prerequisites:** None

**Fulfills:** Elective Credit

This course focuses on all aspects of marketing, from its foundations through its functions. Exploration of marketing and career opportunities within the field is achieved through careful examination of product and service planning, distribution, financing, risk management, selling, promotion, pricing, purchasing, and market information management. This class offers opportunities for group and individual enrichment activities as well as the chance for students to identify their roles in the area of marketing by examining local, national, and international use of marketing strategies. This course is for students who are interested in pursuing business/marketing studies or careers upon graduation.

### **614 ACCOUNTING I (CP)**

**Level:** College Prep, Student may contract  
Honors

**Credits:** 5.0

**Grade Level:** 11, 12

**Prerequisites:** Successful completion of for  
Algebra I

**Fulfills:** Elective Credit

Accounting I uses an integrated approach to teach accounting. Students first learn how businesses plan for and evaluate their operating, financing, and investing decisions and then how accounting systems gather and provide data to internal and external decision makers. This year-long course covers all the learning objectives of a traditional college level financial accounting course, plus those from a managerial accounting course. Topics include an introduction to accounting, accounting information systems, time value of money, accounting for merchandising firms, sales and receivables, fixed assets, debt, and equity. Other topics include statement of cash flows, financial ratios, cost-volume profit analysis, and variance analysis.

### **616 INTRODUCTION TO BUSINESS (CP)**

**Level:** College Prep, Student may contract  
Credits: 2.5

**Grade Level:** 11, 12

**Prerequisites:** None for Honors

**Fulfills:** Elective Credit

This course provides an understanding of the characteristics, the organization, and the operations of all types of businesses. This course covers concepts necessary to manage a small business or to operate a large corporation. It exposes students to the activities, decisions, problems, and successes involved in business, from entrepreneurship to the global economy. Topics include business operations and structures, social responsibility and business ethics, international business, governmental impact, small businesses, human resources,



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

technology in business, financial institutions, credit regulations, investment strategies, and risk management. It opens a career pathway to management, entrepreneurship, accounting, and finance.

## **618 PERSONAL FINANCE (CP)**

**Level: College Prep**

**Credits: 2.5**

Students have many choices about how to spend their money, and this course helps make them aware of the rights, responsibilities, and choices they will face. Through the use of curriculum such as Next Generation Personal Finance, and simulations, the course gives students the tools they will need to make informed decisions related to building credit, school loans, credit cards, spending, saving, borrowing, investing, taxes and insurance. With this knowledge, students can build a solid foundation for financial security now and in the future.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Elective Credit**

## **619 SPORTS AND ENTERTAINMENT MANAGEMENT (CP)**

**Level: College Prep**

**Credits: 2.5**

The field of sports and entertainment management is rapidly growing. Many universities, colleges, and high schools now offer specializations in sports and entertainment management and marketing. Managers create, oversee, and expand the operations of a business. The basic principles of management will be taught through this course: leadership, finance, product management, people management, marketing information management, legal and ethical issues, customer relations, sales management, managing change, and career development.

**Grade Level: 10, 11, 12**

**Prerequisites: None**

**Fulfills: Elective Credit**

## **623 DECA 1: BUSINESS MARKETING & MANAGEMENT (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 2.5**

This is a hands-on business course for students interested in business applications. Students will study the following topics: planning, pricing, entrepreneurship, ownership, management, money handling, risk, inventory, and purchasing. Students will engage in running their own business which includes, but is not limited to, the Falcon's Nest as well as fundraising events. This course is designed to introduce and develop a basic understanding of marketing. Topics will include the functions and utilities of marketing, 4 P's of the marketing mix, SWOT analysis, marketing plan, economic systems and analysis, supply and demand, global marketing, basic job search skills, ethics, teambuilding and leadership, and presentation skills. DECA is a national association for marketing students and offers students the opportunity to develop their leadership and professional skills. Students **must select** a competitive event in which they will compete at the district, state, and possibly the international level against other DECA programs.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Elective credit**

## **624 DECA 2: INNOVATION, LEADERSHIP, & COMMUNICATION (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 2.5**

The course curriculum is structured on the principles of marketing and entrepreneurship while emphasizing the

**Prerequisites: Another business course and instructor permission**

**Fulfills: Elective credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

techniques and principles of human relations, leadership, and business communication, both oral and written. Students will work with outside groups as well as other groups within Danvers High School. Students will engage in business ventures, community service, group discussions, individual or group projects, and presentations. They will use the business concepts they learned in class and apply them in real world business situations. Through the use of technology, students will enhance their presentation and problem-solving skills. Students will exhibit their understanding of the curriculum at the District 3 DECA Competition and Massachusetts DECA competition. DECA activities will take place during evenings and weekends. Students who enroll in this course are required to join DECA, participate in the district conference, and complete a marketing/business plan independent project.

## **625 AP ECONOMICS**

**Level: Advanced Placement**

**Credits: 6**

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Social Studies or Business credit**

A.P. Economics is a college level, full year course that provides all students with a full understanding of basic economic principles. The class will focus on the study of national income, performance measures, economic growth and domestic and international economics. The goal of the course is to provide students with a course equivalent to a college level introduction to economics. The course will cover principles associated with both Micro and Macroeconomics to prepare for the AP examination in May. Resources for the course will provide students with a comprehensive breakdown of concepts and principles associated with the exam. Students are required to register for and take the AP Examination in May.

## **665 COOPERATIVE TRAINING OPTION**

**Level: College Prep**

**Employment Credits: 10.0**

**Grade Level: 12**

**Prerequisites:**

**Fulfills: Elective Credit**

Any senior may **contract** and receive credits for a cooperative training experience within the local employment community. Students must commit to a minimum of 10 hours per week during the school year in this employment. Contracts must be formalized, and enrollment will cease by October 15th. *NOTE: Work-study credits do not count toward extracurricular eligibility. Credit will be given for only one cooperative program.*



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **COMMUNICATIONS TECHNOLOGY**

The philosophy of the communications technology department is to develop in students the necessary skills and understanding which will enable them to actively participate in the arts through the process of creating, performing, and responding.

### **770 TELEVISION PRODUCTION I (CP)**

**Level: College Prep**

**Credits: 2.5**

#### **Requirement**

This course introduces students to video editing as a means of communicating concepts and ideas. Students are divided into smaller production companies that then focus on developing written, verbal, technical, and problem-solving skills through a series of production exercises and assignments. These assignments may include the production of simple commercials, demonstrations, music videos, and limited location shooting. Units on lighting, audio, cameras, computer graphics, writing for television, editing, and careers in communication are covered. Students who successfully complete this course will be better able to understand the complexities and significance of this powerful medium. Students will be introduced to the fundamentals of Adobe Premiere Pro editing software.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Technology & Engineering**

### **775 ADVANCED TELEVISION PRODUCTION (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 2.5**

Students who have successfully completed Television Production I and are considering a career in

**Grade Level: 10, 11, 12**

**Prerequisites: Television Production I & *Instructor Permission***

**Fulfills: Technology & Engineering Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

communications are invited to select this second course in the television sequence. The production company format introduced in TV I will be expanded to include contracting for both individual and group production assignments. Assignments may include documentaries, dramatic presentations, music videos, curriculum support, and skills development. These assignments will provide students with the means to further develop their writing, shooting, editing, lighting, interviewing, performance, and problem-solving skills. Additionally, students will help provide crews for certain community access programs as well as school concerts, assemblies, athletic, and other special events. Students may also have the opportunity to be increasingly involved in location and independent production exercises as they demonstrate both skill and maturity.

## **776 TELEVISION SEMINAR (CP)**

**Level:** College Prep, Student may contract  
**Advanced for Honors**

### ***Permission***

**Credits:** 5.0

The Television Seminar is designed for the student who has successfully completed the first two courses in the television sequence. Specific course content will include advanced production techniques, research methods, and current media trends. The Television Seminar will be project centered. The course will encourage the integration of knowledge acquired to date with specific emphasis on providing the school and community with programming that has both substance and sophistication. It is expected that a portion of the production work will be on location and may involve evening and weekend shooting. Each student will develop a portfolio suitable for college or career placement. In addition to Adobe Premier Pro, students will have Adobe After Effects available for their use.

**Grade Level:** 11, 12

**Prerequisites:** Television Production I,  
Television Production, & *Instructor*

**Fulfills:** Technology & Engineering Requirement

## **165 BROADCAST JOURNALISM**

**Level:** College Prep or Honors

**Credits:** 5.0

### **Requirement**

In this year-long interdisciplinary course, students will practice 21st century learning skills to create a weekly newscast of The Falcon News Network. Combining research, writing, revising, and collaboration, students will learn the varied and nuanced skills, via project-based learning, that are essential to creating a compelling and informative news program. In the writing component of this class, students will learn how to write scripts/stories for broadcast news segments, including researching, drafting and editing. In addition, students will learn how to create a complex, informative, and well-balanced show rundown. Students will also learn how to use DHS' cutting-edge Film and Television Studio to film various types of broadcast segments. They will master how to conduct interviews, as well as have the opportunity to get in front of the camera as an anchor, reporter or commentator through news, feature, review and opinion segments. Lastly, students will learn how to edit footage, in order to create a seamless newscast that will ultimately be broadcast to the DHS community

**Grades:** 9, 10, 11, 12

**Prerequisite:** None

**Fulfills:** Technology & Engineering



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **FINE AND PERFORMING ARTS**

The philosophy of the Applied Arts department is to provide students with knowledge and a variety of experiences in order to develop an appreciation for the arts. This will enrich the lives of students and enhance their lifelong learning experience. The arts are intrinsic to everyone's life and are a universal language.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Visual Arts	Music
Studio Art	Band
Advanced Studio Art	Piano Lab
Portfolio Art	Music and Media
Painting	Chamber Singers
Ceramics I and II	Falconize A Capella
AP Studio Art - 2D	Basic Acting and Improv
Digital Photography	Social Media in Film
Graphic Design	
The Art of Animal Form and Function	

## VISUAL ARTS

The Art department provides students with learning experiences to achieve the following school-wide expectations: students will be critical thinkers who locate, analyze, evaluate, and synthesize information; and students will demonstrate creativity. Formative and summative assessments will be given throughout the courses with a focus on planning skills, originality, composition and conceptual skills, technical skills in media specific to each lesson, revision skills, and effort

### **804 STUDIO ART (CP)**

**Level: College Prep**

**Credits: 2.5**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

Studio Art encompasses work in two and three dimensions with emphasis on visual art as a means of personal expression. This course of study is comprised of sixteen (16) units offered over four (4) years, with four (4) different units offered each year. Rotating units enable students to enroll in art more than once during high school and to be exposed to entirely new experiences every time. Successful completion of one course in Studio Art is required to register for AP Studio Art: 2-D. Unit 3 will be taught during 2021-2022 academic year.

<b>STUDIO ART ROTATING UNITS</b>
----------------------------------

Unit 1

Drawing  
Color Theory  
Relief Sculpture  
Acrylics

Unit 2

Perspective  
Printmaking  
Sculpture  
Watercolors

Unit 3

Nature/Landscape Drawing  
Painting  
Book-Making  
Carving

Unit 4

Figure/Portrait Drawing  
Illustration  
Visual Communications  
Collage



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **805 ADVANCED STUDIO ART (H)**

**Level: Honors**

**Credits: 2.5 or 5**

Advanced Art is a continuation of Studio Art with a focus on technique and the development of personal style. Students work on fundamental skills like drawing and design and explore a variety of media such as watercolor, sculpture, and acrylics.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Studio Art or a portfolio for teacher review**

**Fulfills: Fine Art Requirement**

## **806 PORTFOLIO ART (CP)**

**Level: College Prep**

**Credits: 2.5 or 5**

This class is for students who have completed the Advanced Art course. During the first semester, two-dimensional black and white drawing, two-dimensional color drawing and painting, three-dimensional design, and computer graphics will be covered. Second semester will focus on more independent work. The purpose of the class is to help talented students further their artistic skills and techniques as well as develop their own style. Students will develop a portfolio that can be shown to any college or potential employer.

**Grade Level: 10, 11, 12**

**Prerequisites: Advanced Studio Art & a portfolio for teacher review**

**Fulfills: Fine Art Requirement**

## **811 DIGITAL PHOTOGRAPHY (CP)**

**Level: College Prep**

**Credits: 2.5**

Digital Photography is an introduction to the concepts, design principles, materials, and techniques of photography. This class will teach students how to manipulate photos using Adobe Photoshop software and Apple computers. Students will also learn to use sophisticated digital cameras to create successful pictures. Along with the mechanics of the digital world, students will study photographic composition, learn about famous film and digital photographers, and discuss their work in class critiques.

**Grade Level: 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

## **807 PAINTING (CP and H)**

**Level: College Prep**

**Credits: 2.5**

This course introduces students to the fundamentals of observational and contemporary painting using oil, acrylic, and watercolor paint. Visual perception and artistic expression will be experienced through various techniques with an emphasis on encouraging and nourishing individuality and creativity. Students will learn about the technical aspects of painting such as under-painting, washes, layering, and over-painting. Color theory, the Elements and Principles of Design, and critical thinking strategies and creative problem solving will be incorporated into the course. Exposure will be offered in painting styles and movements in historical and contemporary contexts through presentations, videos, and demonstrations. Formative and summative assessments will be given throughout the course with a focus on planning skills, originality, composition and conceptual skills, technical skills in media specific to each lesson, revision skills, and effort. Honors Requirements: Signed contract and one additional painting to be completed within a minimum of ten (10) additional hours after school in the classroom.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

## **853 GRAPHIC ARTS (CP)**

**Level: College Prep**

**Credits: 2.5**

Students will create original products through computer design, using Adobe Photoshop. They will study and incorporate the elements and principles of design into their work. Their projects will include logo design stationery, envelopes, business cards, posters, advertisements, and the use of text as a design element. They will be encouraged to use their own ideas while using the internet for inspiration.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**855 CERAMICS I (CP)**  
**Level: College Prep**  
**Credits: 2.5**

This course introduces students to different techniques with clay learning hand building, wheel building, sculpting, firing and glaze processes. Students will create artwork that can be functional and/or non-functional, literal and/or conceptual from teacher-directed lessons culminating in the technical and aesthetic skills for the students to be able to create artwork of their own invention and design.

**Grade Level: 9, 10, 11, 12**  
**Prerequisites: None**  
**Fulfills: Fine Art Requirement**

**856 CERAMICS II (CP)**  
**Level: College Prep**  
**Credits: 2.5**

Ceramics II is a continuation of Ceramics I and offers the opportunity to create functional and decorative ceramic artwork. Students will build upon prior knowledge and learn advanced hand building, wheel building, and glazing techniques. Emphasis will be on the use of design and form to establish a personal style

**Grade Level: 9, 10, 11, 12**  
**Prerequisites: Ceramics I**  
**Fulfills: Fine Art Requirement**

## VISUAL ARTS COURSES NOT RUNNING IN 2021-2022

**851 AP STUDIO ART: 2-D**  
**Level: Advanced Placement**

**Credits: 5.0 Fulfills:**

All students must complete the AP Portfolio. This course will follow the AP curriculum as outlined by the College Board. Students will be involved in both the drawing and general portfolio. This course allows highly motivated students to do college-level work while still in high school. Students will have a variety of experiences with the formal, technical, and expressive means available to an artist. Through these experiences, students will develop a sense of excellence in art as well as a sense of commitment to the study of art. Students will prepare for the AP exam in the spring semester. The AP Portfolio Art exam requires the following:

**Grade Level: 10, 11, 12**  
**Prerequisites: One year of high school art or completion of a course in art outside of school**  
**Fine Art Requirement**

**Breadth:** 12 pieces (submitted in digital form) that show a range a drawing experiences and use of a variety of art forms, concepts, and techniques.

**Concentration:** 12 pieces (presented in digital form) that are based on a personal commitment to a specific visual idea or mode of working.

**Quality:** 5 original pieces that exemplify the student's finest work. The actual work will be sent in to the College Board.

- **General Portfolio** - This course parallels the basic foundation programs offered in colleges and art schools. It covers drawing, design theories, painting, photography, and computer design. Students are expected to work on their portfolios both within and outside of the classroom. Homework is required, and students are expected to keep a sketchbook.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## MUSIC

The Music department provides students with learning experiences to achieve the following school-wide expectations: students will demonstrate creativity; and students will work independently and collaboratively to accomplish goals.

### **860 BAND**

**Level: College Prep, Student may contract for Honors**  
**Credits: 5.0**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Woodwind, brass, and percussion players**

**Fulfills: Fine Art Requirement**

The band provides its members the opportunity to play a variety of the finest band literature. Performance requirements include football half-time shows, concerts, school and civic events, and concert tours. A one-week band camp is required during the month of August in preparation for marching season as well as Wednesday night and Saturday morning or afternoon rehearsals during the months of September, October, and the first two weeks in November. Membership is open to all woodwind, brass, and percussion players of any grade level with approval of the director. A variety of assessment tools will be used to measure student progress and achievement.

### **862 MIXED CHORUS**

**Level: College Prep, Student may contract for Honors**  
**Credits: 5.0**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

This choral class is open to beginning and advanced singers who want to explore all kinds of music, improve their voices, and participate in a musical experience. Performance requirements include several evening concerts during the year at Danvers High School. Town concerts and exchanges with other area high schools may also be part of the performance requirements for this course. Honors contract students will receive additional requirements in class. A variety of assessment tools will be used to measure student progress and achievement.

### **863 CHAMBER SINGERS**

**Level: Honors**  
**Credits: 5.0**

**Grade Level: 10, 11, 12**

**Prerequisites: Selected by audition only**

**Fulfills: Fine Art Requirement**

Chamber Singers is open to those students entering sophomore, junior, and senior years who are selected by audition in the spring prior to enrollment. The repertoire will reflect a variety of musical periods and styles with an emphasis on a cappella singing. In addition to concerts at Danvers High School, many performances



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

throughout the community are a requirement of this course. Auditioning for the Northeast District Chorus during the fall semester is strongly recommended as a course component.

## **872 PIANO LAB**

**Level: College Prep**

**Credits: 2.5**

This course is designed to introduce students with little or no experience to the basic skills needed to play a keyboard instrument. Students will use the programs eMedia Piano Method, Noteflight notation software, and Garage Band to aid in their grasp of basic musical terms and techniques. Students will learn, play, and compose music for their instrument. Group and individual activities will be utilized to accommodate varying skill levels within the class.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

## **873 MUSIC AND MEDIA**

**Level: College Prep**

**Credits: 2.5**

Music and Media is a class designed to help students gain a basic understanding of and proficiency in the fundamentals of music and digital recording. Students will develop an understanding of the basic concepts of the science of sound and digital audio, demonstrate an understanding of microphones and microphone placement, record and edit audio using digital audio software, burn audio to a CD, convert audio files to different formats, create MP3 files, create podcasts, and create a soundtrack for a short film clip. Most of the class work and final will be project-based. Students will create an audio portfolio and burn a complete portfolio to a CD as part of a final project.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**

## **876 FALCONIZE A CAPPELLA (H)**

**Level: Honors**

**Credits: 5.0**

Members of Falconize will perform at the highest level in the contemporary a cappella style. Students will be auditioned and selected by the choral director. Interested students must be able to sing in the pop/jazz style and therefore must audition in this style. Falconize will perform at concerts and other school events, community functions, and local/national competitions. Members of Falconize will also perform with the school's Mixed Chorus at the school concerts. In addition to performing, students will gain strong sight-reading skills, learn the basics of arranging vocal music, and become familiar with using, setting up, and monitoring sound equipment.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Selected by audition only**

**Fulfills: Fine Art Requirement**

## **626/626H Social Media in Film (CP)**

**Level: College Prep, Student may contract for Honors**

**Credits: 2.5**

This course will explore the societal commentary from films and filmmakers, with a focus on the evolution of Social Media. Students will view and analyze films that present the foundation for social media and its various platforms including but not limited to: television, computers, emails, blogs, Facebook, YouTube, Twitter, and Instagram. Students will discuss and track their own social media use with relation to their self-awareness, self-management, and social and emotional development. Strong analytical, communication, and writing skills are required. Students will be expected to apply the skills they gain during the course to create original scenes and interpret and perform a writer's script in a table-read setting.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Elective**

## **864 Music Theory 1**

**Level: College Prep**

**Credits: 2.5**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: None**

**Fulfills: Fine Art Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

*Fundamentals of Notation and Keyboarding* - Music Theory I integrates aspects of melody, harmony, rhythm, form, analysis, and composition. Emphasis is placed on reading and writing musical notation, developing listening skills, sight-singing, and using the keyboard. Students will recognize, describe, and apply the basic materials and processes of music through an integrated approach, which includes aural, written, creative, and analytical components. Students will address these basic concepts by listening and analyzing a wide variety of music.

**869 Music Theory 2**  
Level: College Prep  
Credits: 2.5

Grade Level: 9, 10, 11, 12  
Prerequisites: Music Theory 1 or 85% on placement exam  
Fulfills: Fine Art Requirement

*Harmony, Composition, and Arranging* - Music Theory II is a continuation of the Music Theory I curriculum and is designed to develop individual student musicianship in four areas: terminology/notation, performance/aural skills, analysis and composition. Sight-reading, rhythmic/melodic/harmonic dictation, and composition are included. The construction and use of scales, keys, intervals, and elementary harmony is emphasized. Students will use Noteflight to compose, arrange, and complete dictation and part-writing exercises related to course content.

## **PERFORMING ARTS COURSES NOT RUNNING IN 2021-2022**

**875 BASIC ACTING AND IMPROV (CP)**  
Level: College Prep, Student may contract for Honors  
Credits: 2.5

Grade Level: 9, 10, 11, 12  
Prerequisites: None  
Fulfills: Fine Art Requirement

This course will develop basic acting skills such as diction, voice projection, and movement. No prior experience in drama is required. Students will study the craft of acting with a focus on improvisation, acting exercises, and theater games to develop the performance skills of spontaneity, listening, and creating with a group. The fundamentals of acting on stage and discovering a character—both physically and vocally—will be explored. This course will enhance students' comfort with speaking in front of a crowd. Self-created scenes, improvised scenes, and scripted scenes will be utilized as a basis for the work in class.

## **SPECIAL EDUCATION SERVICES**

The Special Education department provides services to identified students through inclusion classes that are co-taught with regular education teachers, self-contained classes, and consultation. Study skills and academic support are also available. **Students enrolled in these programs must have a valid IEP in accordance with procedures determined by special education regulations.**

**119/129/139/149 ENGLISH FUNDAMENTALS**  
Level: Unleveled  
Credits: 5.0

Grade Level: 9, 10, 11, 12  
Prerequisites: Special Education Team Decision  
Fulfills: English Requirement

This course is designed for students with significant weaknesses in reading fluency, reading comprehension, spelling, vocabulary, and written expression. Individualized instruction involves a multi-sensory approach, slower pace, and consistent review of information. Strategies are designed to enable students to improve communication skills.

**205sc AMERICAN HISTORY: LEADERS & ECONOMY**  
Level: Unleveled  
Credits: 5.0

Grade Level: 9, 10  
Prerequisites: Special Education Team Decision  
Fulfills: Social Studies Requirement



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Through a thematic approach, this course focuses on how American leaders and the economy influenced the development of the United States in the time period from 1650-1880. The course is offered in alternating years with American History: Government, Policies, and Conflict.

## **206sc AMERICAN HISTORY: GOVERNMENT, POLICIES, AND CONFLICT**

**Level: Unleveled Requirement**  
**Credits: 5.0**

Through a thematic approach, this course focuses on the underpinnings of the U.S. government, its domestic and foreign policies, and the resulting conflicts in the time period from 1650-1880. The course is offered in alternating years with American History: Leaders and Economy.

**Grade Level: 9, 10**

**Prerequisites: Special Education**

**Team Decision**

**Fulfills: Social Studies**

## **329 BIOLOGY**

**Level: Unleveled**  
**Credits: 5.0**

This course is assigned to special education students with the necessary skills-based modifications. The course emphasizes the unifying themes of biology. The unit topics include characteristics of living things, structure and function of cells, evolution, genetics/heredity, human anatomy and physiology, and ecology. There is a strong emphasis on MCAS preparation.

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: Science Requirement**

## **339 BIOLOGY II**

**Level: Unleveled**  
**Credits: 5.0**

This course is assigned to special education students and includes the necessary skills-based modifications. The curriculum revisits essential topics from the freshman biology course through the lens of the various human body systems. The curriculum also explores ecology and evolution in more depth. This course is recommended for students preparing for the Biology MCAS retest.

**Grade Level: 10**

**Prerequisites: Special Education Team Decision**

**Fulfills: Science Requirement**

## **318 ENVIRONMENTAL SCIENCE FUNDAMENTALS**

**Level: Unleveled**  
**Credits: 5.0**

This course is designed for special education students and includes necessary skills-based modifications. The curriculum investigates elements of the life sciences such as sustainability, pollution, and energy conservation. Students make real life connections to the world around them and how they can positively impact the environment.

**Grade Level: 11**

**Prerequisites: Special Education Team Decision**

**Fulfills: Science Requirement**

## **419 ALGEBRA I FUNDAMENTALS**

**Level: Unleveled**  
**Credits: 5.0**

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on MCAS preparation as well as the fundamentals of Algebra through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include operations with real numbers, expressions, linear equations and inequalities, polynomials, quadratic equations, exponents, and simultaneous equations. *Appropriate use of technology is encouraged throughout the course, and students are required to*

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: Math Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

*have a graphing calculator (TI-84 Plus preferred).*

## **439 GEOMETRY FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on MCAS preparation as well as the fundamentals of Geometry through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include basic geometric terms and notation, congruence, parallelism, circles, area and perimeter, similarity, right triangles, 3D figures, and quadrilaterals. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 Plus preferred).*

**Grade Level: 10**

**Prerequisites: Special Education Team Decision**

**Fulfills: Math Requirement**

## **420 ALGEBRA II FUNDAMENTALS**

**Level: Unleveled**

**Credits: 5.0**

This course is intended for special education students and is taught with the necessary modifications. The curriculum is aligned with the Massachusetts Curriculum Frameworks and the high school's learning expectations. There will be a strong emphasis on the fundamentals of Algebra through the use of real world applications. Problem solving, communication, connections, representations, and reasoning skills will be an integral part of the course. The unit topics will include graphing and evaluating expressions using the following families of functions: polynomial (linear, quadratic, cubic), exponential growth and decay, rational, trigonometric and logarithmic functions. Students will also use graphical and algebraic methods of solving systems of equations that model real world situations. *Appropriate use of technology is encouraged throughout the course, and students are required to have a graphing calculator (TI-84 Plus preferred).*

**Grade Level: 11**

**Prerequisites: Special Education Team Decision**

**Fulfills: Math Requirement**

## **922 ACADEMIC SUPPORT**

**Level: Unleveled, Pass/Fail**

**Credits: 5.0**

This academic support class is assigned to students identified as having a learning disability. Skills are taught within the class to support students' progress with the curriculum. Special education teachers consult with content area teachers in order to implement appropriate accommodations.

**Grade Level: 10, 11, 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**

## **921 HEALTH FUNDAMENTALS**

**Level: Unleveled**

**Credits: 2.5**

This basic health class covers the topics of nutrition, hygiene, sexuality, and mental health. The course will also include basic living skills to help students develop the confidence needed to become independent adults.

**Grade Level: 11, 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**

## **924 ACADEMIC SUPPORT**

**Level: Unleveled, Pass/Fail**

**Credits: 5.0**

This academic support class is assigned to students identified as having a learning disability. Skills are taught within the class to support students' progress with the curriculum. Special education teachers consult with content area teachers in order to implement appropriate accommodations.

**Grade Level: 9**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**

## **927 PHONETIC READING**

**Level: Unleveled, Pass/Fail**

**Credits: 5.0**

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

The phonetic reading class is designed for students with dyslexia. These students have not internalized sounds and word structure. The class uses the SRA Corrective Reading Program. The program provides students with a systematic, multisensory approach to teach students to decode accurately and fluently. Students also learn how to spell at the same time that they are learning to decode.

## **928 CAREER AND FINANCIAL PLANNING**

**Level: Unleveled**

**Credits: 2.5**

The class covers the process of career planning from the ground up, beginning with choosing career options through to the interview process. The class will also help students learn to budget their finances as well as to navigate the adult world of renting an apartment, buying a car, using credit, and conducting basic banking.

**Grade Level: 11, 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**

## **THE LIFE SKILLS/TRANSITION PROGRAMS**

The Life Skills/Transition Programs offer an integrated approach to students with significant special needs who will enter the workforce upon completion of their high school career. The Life Skills Program is generally designed for students in grades 9 to 11. The Transition Program is generally designed for students in grade 12 up until age 22. Students will be fully enrolled and awarded 35 credits per year. Students are placed in this program upon recommendation of their Special Education Team. Details of the program are available through the special education department. **The Life Skills/Transition Programs are not designed to lead to a DHS diploma.**

## **THE LIFE SKILLS PROGRAM**

The Life Skills Program at Danvers High School is generally for students in grades 9-11 and is designed to teach students the necessary academic and functional life skills that will prepare them to achieve success in the community. A major focus of the program is encouraging independence in all activities.

The program emphasizes reading instruction and vocational training. Students in the Life Skills program take the following courses: Corrective Reading, Pre-Vocational Skills, Functional Life Skills, Learning Skills, Life Skills History, Life Skills Science, Life Skills Math, and Life Skills English. The courses are a blend of traditional academics and functional life skills.

Students may begin preparing to move to the Transition Program during their junior or senior year. See the Transition Program for further information about that course of study.

## **930 PRE-VOCATIONAL SKILLS**

**Level: Unleveled**

**Decision**

**Credits: 5.0**

Pre-Vocational Education (i.e., Job Skills) is a self-contained special education class that is tailored to meet the individual needs of each student in compliance with his or her goals and IEP. This course will teach students to develop their vocational skills so they can perform the responsibilities of paid employment. This course teaches skills such as completing job applications, searching for employment, developing positive worker skills, and problem solving. The class will also help students discover what fields of employment they may be most interested in and best suited for. Students apply skills they are learning to on-campus vocational assignments.

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team**

## **931 LIFE SKILLS ENGLISH**

**Level: Unleveled**

**Credits: 5.0**

Life Skills English is a self-contained special education class that is tailored to meet the individual needs of each student in compliance with his or her goals and IEP. This course will teach students to develop reading

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

and writing skills for independent living. The students will read literature, answer comprehension questions about the text, and study vocabulary. Students will develop writing skills that enable them to communicate in real life situations.

## **932 LIFE SKILLS SCIENCE**

**Level: Unleveled**

**Credits: 2.5**

Transition Science is a self-contained special education class that is tailored to meet the individual needs of each student in compliance with his or her goals and IEP. This course will teach students to develop their functional science skills for independent living. The content of this course changes yearly. Topics commonly covered include human body systems, engineering, and plant life.

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**

## **933 LIFE SKILLS HISTORY**

**Level: Unleveled**

**Credits: 2.5**

Transition History is a self-contained special education class that is tailored to meet the individual needs of each student in compliance with his or her goals and IEP. This course will teach students local, national, and world history and basic geography.

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**

## **934 LIFE SKILLS MATH**

**Level: Unleveled**

**Credits: 5.0**

Life Skills Math is a self-contained special education class designed to meet the needs of each student in compliance with his or her goals and IEP. This course focuses on math skills as they relate to everyday situations and includes concepts such as greater than/less than, money, time, and budgeting.

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**

## **935 FUNCTIONAL LIFE SKILLS**

**Level: Unleveled**

**Credits: 5.0**

Functional Life Skills is a self-contained special education class that is tailored to meet the individual needs of each student in compliance with his or her goals and IEP. This course will teach students strategies that promote independence. This course teaches social skills, problem solving, community involvement, personal responsibility, cooking/food preparation, and transportation skills.

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**

## **936 LEARNING SKILLS**

**Level: Unleveled, Pass/Fail**

**Credits: 5.0**

Learning Skills is designed for students in the Life Skills program. This class will address skills required for executive functioning such as working memory, organization, goal setting, following directions, and task completion. The skills taught will be individualized according to the student's needs in the executive functioning area.

**Grade Level: Generally 9 - 11**

**Prerequisites: Special Education Team Decision**

## **949 CORRECTIVE READING**

**Level: Unleveled**

**Credits: 5.0**

Corrective reading is a self-contained special education class that is tailored to meet the individual needs of

**Grade Level: generally 9 - 11**

**Prerequisites: Special Education Team Decision**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

each student in compliance with his or her goals and IEP. This course will teach reading skills, including decoding strategies that promote and enhance independent reading.

## **THE TRANSITION PROGRAM**

The Transition Program is designed to help older students develop the skills and awareness to achieve independence and success in work, independent living, and community settings. The transition process from high school to post-secondary life is integral to all classes. The Transition Program includes job training, independent living skills, career awareness, health, hygiene, fitness and recreation, functional academics, and community connections.

**950 JOB SKILLS**  
**Level: Unleveled**  
**Credits: 5.0**

**Grade Level: generally 12 up until age 22**  
**Prerequisites: Special Education Team Decision**

This course focuses on pre-vocational and vocational skills exploration and training. Topics to be covered include career awareness, resume writing, filling out applications, job search strategies, interviewing techniques, and work attitudes and behaviors.

**958 JOB INTERNSHIP**  
**Level: Unleveled, pass/fail**  
**Credits: 10.0**

**Grade Level: generally 12 up until age 22**  
**Prerequisites: Special Education Team Decision**

The internship provides vocational training at a variety of work sites. This course is designed to expose students to a range of employment opportunities appropriate for young adults after high school. Work site opportunities with a supervising job coach will be available. Students will visit a variety of job sites in the community and meet with employers.

**952 TRANSITION MATH**  
**Level: Unleveled**  
**Credits: 5.0**

**Grade Level: generally 12 up until age 22**  
**Prerequisites: Special Education Team Decision**

In this course, students will learn and practice math and critical thinking skills used in school, vocational, and independent living situations. Topics covered include measuring, finding cost, pricing orders, keeping scores, comparing numbers, keeping a timesheet, personal banking, budgeting, and other money math.

**953 TRANSITION ENGLISH**  
**Level: Unleveled**  
**Credits: 5.0**

**Grade Level: generally 12 up until age 22**  
**Prerequisites: Special Education Team Decision**

In this course, students will learn and practice reading and writing skills used at work, home, and school. Topics covered include reading strategies, functional and sight-reading, sentence and paragraph level grammar and mechanics, letter writing, completing job applications, and writing cover letters.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **951 LIFE SKILLS**

**Level: Unleveled**

**Credits: 5.0**

In this course, students will learn about a variety of topics that are important in order to live independently after high school. Experience and practice will include learning about healthy meal planning and nutrition, cooking, laundry, community resources, budgeting, shopping, fitness and hygiene, and leisure time activities.

**Grade Level: generally 12 up until age 22**

**Prerequisites: Special Education Team Decision**

## **955 TRANSITION HEALTH AND FITNESS**

**Level: Unleveled**

**Credits: 5.0**

The students in this class will participate in a fitness routine at the Danvers YMCA. Issues of health and hygiene will be addressed as needed.

**Grade Level: generally 12 up until age 22**

**Prerequisites: Special Education Team Decision**

## **WELLNESS**

The Danvers High School Wellness Department is comprised of both Physical and Health Education courses. The Wellness Program provides students with the knowledge and skills necessary to develop personal habits that encourage lifelong healthy lifestyle choices. The program will encourage the skills needed to promote healthy bodies, relationships, families, schools, and communities. Department electives will be offered on a rotating schedule so that students have an opportunity to pursue different courses each year. The electives will not only delve more deeply into topics that were introduced during the required courses but will also expose students to topics and courses related to the allied health profession.

The Health department provides students with learning experiences to achieve the following school-wide expectations: students will communicate effectively through writing, speaking, and other mediums; students will be critical thinkers who locate, analyze, evaluate, and synthesize information; and students will demonstrate knowledge of behaviors that affect the health and safety of themselves and others.

The Physical Education department provides students with learning experiences to achieve the following school-wide expectations: students will demonstrate creativity; students will demonstrate knowledge of behaviors that affect the health and safety of themselves and others; students will work independently and collaboratively to accomplish goals.

The state of Massachusetts requires that all students take physical education in all grades. However, at DHS, eligible students may petition to participate in an alternate physical education program in either grade 11 or grade 12 if they meet the following requirements:

- Students must have demonstrated competency in all prior physical education classes and received no grade lower than a “B” at any point in time.
- Students must be fully scheduled; “fully scheduled” means that students are carrying no study halls.
- Students must be involved in an approved type of physical activity program with a time equivalent (75 hours) to a semester of physical education. The curriculum director (or designee) will determine approved programs.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

- An approved supervisor/head coach must document the physical activity program with required periodic checkpoints as determined by the physical education department.

All approved alternate programs must have verification that the required 75 hours have been met. A form to track these hours is available in the DHS Main Office and must be returned as soon as possible to verify completion. Failure to provide verification will necessitate completing the required hours in a traditional program at the earliest opportune time.

Students are required to take *001 Introduction to Wellness Pursuits* and *002 Project Challenge 1* in order to graduate.

## REQUIRED WELLNESS COURSES

### 011 HEALTH FOR THE MIND AND BODY

Level: Unleveled

Credits: 1.25

This course is designed to guide students in making responsible health decisions. Topics to be covered include human sexuality, sexually transmitted infections, responsible decision making regarding human sexuality, understanding and managing stress, substance use, abuse and the effects on the teen brain, as well as maintaining their own health. Among other materials, the course utilizes research-based curriculum including *Our Whole Lives*, and *Fighting Invisible Tigers*.

Grade Level: 9

Prerequisites: None

Fulfills: Health Requirement

### 012 SEMINARS IN HEALTH

Level: Unleveled

Credits: 1.25

Seminars in Health is designed to examine major health issues young adults have faced or will face in their lifetime. The program's goal is to foster resilience by enhancing health literacy, healthy self-management, and health promotion and advocacy. The curriculum includes Media Literacy, Disease and Disease Prevention, Respect for Diversity (understanding stereotypes, harassment, bullying, and the social impact), Mental Health and Mental Illness, and Signs of Suicide and Suicide Prevention. Emphasis is placed on responsible decision-making skills, which accompany factual information and student group analysis of health issues. Each unit utilizes research-based curriculum.

Grade Level: 10

Prerequisites: Health for the Mind and Body

Fulfills: Health Requirement

### 001 INTRODUCTION TO WELLNESS PURSUITS

Level: Unleveled

Credits: 1.25

Freshman students will be required to design and monitor their own fitness program based on sound principles of training and exercise. Information relative to the practice of lifelong wellness will be presented through the course of instruction. Freshmen will evaluate their level of physical fitness using a variety of methods and assessments (including FITSTATS) and design a program that meets their individual needs. Students will implement their personal fitness program using the strength and cardiovascular equipment in the state-of-the-art personal fitness/wellness room. Instruction and participation in individual and group physical activities that promote a healthy lifestyle will also be an important aspect of this course. Individual activities may include tennis, in-line skating, speedminton, pickle-ball, yoga, fitness games, dance, and golf. Team activities may include, but are not limited to, razzle-dazzle football, soccer, team handball, Ultimate Frisbee,

Grade Level: 9

Prerequisites: None

Fulfills: Physical Education Requirement



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

basketball, lacrosse, and volleyball.

## **002 PROJECT CHALLENGE I**

**Level: Unleveled**

**Credits: 1.25**

The sophomore required course is designed to promote self-confidence, group cooperation, and problem solving skills in a mutually supportive environment. The course is divided into three distinct phases. The initial activities are designed to develop trust and mutual support among group members. The second phase emphasizes group cooperation and problem solving skills. The initiative problems presented require a full contribution from every member of the group. The final activities in this course are designed to encourage risk-taking and to promote self-confidence. These activities include working on the ropes course located at the high school. Students are not mandated to participate on the high elements but are encouraged to try. Certification in the American Heart Association CPR/AED and fitness assessment will be an aspect of this course.

**Grade Level: 10**

**Prerequisites: None**

**Fulfills: Physical Education Requirement**

## **ELECTIVE SEMESTER COURSES**

### **020 INTRO TO CHILD DEVELOPMENT I**

**Level: Unleveled**

**Credits: 2.5**

This course is designed as an introduction for students to the basic concepts of child development, parenting, and child care. It is designed to combine basic information with practical application to ensure that knowledge gained can be put to use. The course will cover the importance of studying children and parenting, pregnancy and birth, and the physical, emotional, social, and intellectual development of the child from birth to age three.

**Grade Level: 11, 12**

**Prerequisites: None**

**Fulfills: Elective Credit**

### **009 Lifelong Activities**

**Level: Unleveled**

**Credits: 2.5**

Students will learn and practice physical activities designed to keep students fit and healthy for a lifetime. These activities include but are not limited to: Archery, Golf, Bowling, Wellness Center, Walking, Biking, Rail Trail, Kickball, Tennis, Softball, Basketball, Roller Blading, Bocce, Yoga, Dance, Table Tennis, spikeball, canjam and lawn games.

**Grade Level: 11 and 12**

**Prerequisites: None**

**Fulfills: Health Requirement**

### **010 Competitive Games**

**Level: Unleveled**

**Credits: 2.5**

Students will compete in several different modules throughout the semester consisting of competitive team games. These include but are not limited to basketball, floor hockey, soccer, kickball, team handball and other competitive team sports.

**Grade Level: 11 and 12**

**Prerequisites: None**

**Fulfills: PE Requirement**

### **017 Strength and Conditioning**

**Level: Unleveled**

**Credits: 2.5**

The Strength and Conditioning course will give students the tools and resources needed to be physically fit and healthy for a lifetime. Students will also learn how to create their own Health and Fitness plans that work towards specific health, fitness and career goals and learn proper lifting techniques. The Strength & Conditioning Curriculum focuses on developing & improving Health Related Fitness which includes Muscular

**Grade Level: 11 and 12**

**Prerequisites: None**

**Fulfills: PE Requirement**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Improved Body Composition. Also, Skill Related Fitness which includes Agility, Balance, Coordination, Speed, Reaction Time and Explosive Power. By the end of the course the students will be able to demonstrate a satisfactory level of knowledge, technique and competency in the following areas: General knowledge of Basic Anatomy, Physiology and Biomechanics, Calisthenics, Resistance Bands, Weight Training, Circuit / Cross Training, Plyometrics and Jump Rope

### ### Aerobics/Tone and sculpt

**Level: Unleveled**

**Credits: 2.5**

Students will be provided with an opportunity to strengthen their cardiovascular system and tone muscles. This course is designed to increase energy, mental clarity, and health as a part of one's lifestyle. Activity segments will incorporate high, light, and low impact movements as well as weight training circuits. Students will also learn proper warm-ups and cool downs. In addition to aerobic workouts, the student will receive information on how to improve health and fitness. Several types of aerobic classes will be offered but are not limited to zumba, pilates, yoga, cycling, HITT and p90x.

**Grade Level: 11 and 12**

**Prerequisites: None**

**Fulfills: PE Requirement**

### 013 FIRST RESPONDERS

**Level: Unleveled**

**Credits: 2.5**

FIRST RESPONDERS is an elective for students interested in learning advanced first aid skills. This course is suited for students who desire employment as a lifeguard, ski patrol or careers in law enforcement, medicine, firefighting, or other occupations where advanced layperson medical care may be required. The course provides an overview of human anatomy, personal safety in emergency situations, legal considerations, and the care of sick and injured patients. Students will learn and use medical terminology, assessment of sick and injured people, and techniques of teamwork when dealing with emergency scenes. Upon successful completion of the course students will earn CPR AED certification through The American Heart Association. Topics include care for bleeding, shock, wounds, fractures, and seizures, scene safety and control, drug overdose, childbirth, sudden illness, poisoning, burns, airway management, infection control, and rescue.

**Grade Level: 11, 12**

**Prerequisites: NONE**

**Fulfills: Health Credit**

### 014 THE MINDFUL TEEN

**Level: Unleveled**

**Credits: 2.5**

This course is for any student who desires to be better prepared to deal with the stressors of adolescence. Being a teen can be really stressful! Mindfulness is a powerful way to handle stress, and live life more fully. Mindfulness is all about living fully in the present moment, without judgment, and with an attitude of kindness and curiosity. It's about breathing, noticing what's happening right here and now, and then letting it go. You can be mindful anytime, anywhere, no matter what you're doing. It sounds simple, but it's not always easy to do, especially when you are stressed! This course will provide information, tools, resources and experiences to help you get started.

**Grade Level: 11, 12**

**Prerequisites: NONE**

**Fulfills: Health or Physical Education Credit**

### 015 EMPOWERMENT THROUGH YOGA

**Level: Unleveled**

**Credits: 2.5**

**Grade Level: 11, 12**

**Prerequisites: NONE**

**Fulfills: Physical Education Credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

The purpose of the course is to promote lifelong physical activity and to develop an understanding of the benefits of being healthy. In this class, we will utilize Yoga practices to become more physically, mentally, energetically, and emotionally fit. Students will learn concepts of physical fitness, identify stress reduction techniques, gain an increased ability to concentrate, and develop Mindful practices to support a lifetime of fitness and stress reduction.

## **921 HEALTH FUNDAMENTALS**

**Level: Unleveled**

**Credits: 2.5**

This basic health class covers the topics of nutrition, hygiene, sexuality, and mental health. The course will also include basic living skills to help students develop the confidence needed to become independent adults.

**Grade Level: 11, 12**

**Prerequisites: Special Education Team Decision**

**Fulfills: Elective Credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **D.R.I.V.E PROGRAM**

The D.R.I.V.E. Program at Danvers High School is an alternative education program focused on Diversity, Respect, Integrity, Vision, and Excellence. The program is structured to provide students who have emotional and behavioral challenges with a safe, supportive learning environment. Students are given access to the general curriculum through smaller class sizes and more individualized support. By helping students to develop their intrapersonal and interpersonal skills, the program is designed to increase community involvement and produce successful citizens.

### **912d COMMUNITY BUILDING**

**Level: Unleveled**

**Credits: 5.0**

Community Building is a class in which students are required to work together to reflect upon themselves and to identify areas for self-improvement. Through both discussions and projects, students engage in collaborative learning around various topics of interest, from student-selected current events issues to larger psycho-educational themes such as self-awareness and adaptive coping skills. Examples of topics covered include suicide prevention, addiction and recovery, teen violence and healthy relationships, and mindfulness and meditation practices. Project guidelines vary each month, and students are expected to work both individually and in groups.

**Grade Level: 9, 10, 11, 12**

**Prerequisites: Program Placement**

**Fulfills: Elective Credit**

### **983 D.R.I.V.E. PHYSICAL EDUCATION/HEALTH**

**Level: Unleveled**

**Credits: 5.0**

The physical education component of this course is based on the Experiential Education Model. Students will participate in and reflect on activities focused on developing leadership, trust, and teamwork. The health curriculum will provide students with the knowledge and skills they need to make good decisions and to engage in healthy behaviors. The experiential education approach provides students with interactive experiences that encourage them to model the skills they are learning.

**Grade Level: 9 - 12**

**Prerequisites: Program Placement**

**Fulfills: Health & Physical Education Rqmt**

### **970 D.R.I.V.E. INTERNSHIP**

**Level: Unleveled**

**Credits: 10.0**

The internship is designed to prepare students for post-secondary work experiences. Students are urged to explore various career opportunities while developing strong skills in interviewing, prospecting, and resume building. Many students attain part-time positions with the option to spend a portion of their typical school day at the job site.

**Grade Level: 11, 12**

**Prerequisites: Program Placement**

**Fulfills: Elective Credit**

### **997 D.R.I.V.E. JOB SKILLS**

**Level: Unleveled**

**Credits: 5**

This course will provide students with a basic knowledge of the skills needed to succeed in the 21<sup>st</sup> century workplace. Topics will include but are not limited to the following: resume writing, job searches, interview skills, customer service, budgeting, supervising, managing, evaluating, group dynamics, coaching, team building skills, motivational topics, communication, interpersonal skills, research and planning, organizational skills, networking, production, how to make profits, and site visits. This course will help students to understand real world applications.

**Grade Level: 11, 12**

**Prerequisites: Program Placement**

**Fulfills: Elective Credit**



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **EARLY COLLEGE**

Danvers High School is pleased to offer Innovation Pathways and Early College programming for students. Innovation Pathways at Danvers High School meet a rigorous and clearly defined set of criteria set by the Department of Elementary and Secondary Education (DESE). The intent of each Innovation Pathway is to provide students with a cohesive set of college and career experiences aligned to a broad industry area of interest. Early College provides students with an opportunity to earn at least 12 college credits at North Shore Community College during their time at Danvers High School. We also offer two career pathways that are not designated by DESE and have been created by our faculty: Civic Engagement and Public Policy, and Fine & Performing Arts. The college-level courses offered as part of the Early College Program are as follows (course descriptions are all from the NSCC course catalog):

**FFL103: Understanding Higher Education and Career Pathways**    **Grade Level: 10**  
**Level: College Dual Enrollment Course**    **Prerequisites: Enrolled in the Early College Program**  
**Credits: 5 (3 college credits)**    **Fulfills: Elective Requirement**

This course provides an introduction to higher education, including the different purposes, functions, and structures of postsecondary institutions. Students will gain a comprehensive understanding of degree and career pathways available across institutional types as well as familiarity with the social and emotional factors that influence student persistence and completion across educational settings. A variety of contemporary issues in higher education will be explored, with particular emphasis on the ways in which student experiences intersect with these issues. Topics include but are not limited to: academic discourse, social-emotional learning, educational planning, financial planning, college placement options, prerequisites/corequisites, and teaching and learning modalities. While this course focuses on higher education specifically, course topics will have application to educational settings and successful learning more broadly.

**CMP 101: Composition I**    **Grade Level: 11**  
**Level: College Dual Enrollment Course**    **Prerequisites: English 10**  
**Credits: 5 (3 college credits)**    **Fulfills: Elective Requirement**

Emphasis is on developing skills of writing, reading, analytical thinking, and research. Students are introduced to thought provoking ideas in readings from a variety of disciplines and learn to organize material, analyze ideas, and produce clear writing. Fulfills open and liberal arts electives.

**MAT 050: Foundations of Mathematics Literacy**    **Grade Level: 11**  
**Level: College Dual Enrollment Course**    **Prerequisites: Geometry**  
**Credits: 5 (4 college credits)**    **Fulfills: Elective Requirement**

This course is designed to strengthen basic math skills and to provide students with the necessary foundations for mathematics literacy. Topics include solving relevant mathematical problems using numeracy, mathematical thinking and investigations, proportional reasoning, personal financial applications and fundamental algebraic reasoning. Use of technology is integrated throughout the course.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

## **SENIOR PROGRAMMING**

Each year members of the senior class at Danvers High School are provided a unique opportunity to complete an internship, capstone project or independent study. Below you will find descriptions of each of these experiences.

**DH992 Senior Internship Program**  
**Level: Unleveled, Pass/Fail**  
**Credits: 0**

**Grade Level: 12**  
**Prerequisites: None**  
**Fulfills: Graduation Requirement**

In April and May, Danvers High School Falcon Interns venture out into the workplace and experience the world beyond the walls of DHS in completing a senior internship of at least 100 hours.. Students can experience life as pediatricians, engineers, firefighters, teachers, radio broadcasters, and so much more.

In order to be considered for the internship program, students must to be in solid academic standing, and have no outstanding obligations to DHS. Students are supported by our Senior Internship Coordinators, teachers and guidance counselors to identify an experience that matches their college and career aspirations. Students are not allowed to be directly supervised by a parent/guardian.

Additional information about our senior internship program can be found on our website at:  
<https://danverspublicschools.org/dhs/senior-internships-2/>

**DH993 Senior Capstone Project**  
**Level: Unleveled, Pass/Fail**  
**Credits: 0**

**Grade Level: 12**  
**Prerequisites: None**  
**Fulfills: Graduation Requirement**

Seniors who elect to complete a Senior Capstone Project will work closely with a faculty advisor on a culminating research project directly related to their college and/or career interests. The capstone requires at least a 100 hour commitment of work time as well as being sponsored and approved by a faculty member and the principal (or designee). Students must be in good academic standing in order to be eligible for a Senior Capstone Project. The particulars of each capstone project will vary, but all projects will included, at minimum, a detailed explanation of how the project aligns to the college and/or career interests of the student, a research question, methods, data, and a discussion section.



# DANVERS HIGH SCHOOL

2021-2022 Program of Studies

**DH994 Senior Independent Study**  
**Level: Unleveled, Pass/Fail**  
**Credits: 0**

**Grade Level: 12**  
**Prerequisites: None**  
**Fulfills: Graduation Requirement**

Seniors who have remaining graduation requirements will enroll and complete an individual independent study to supporting students in meeting all graduation requirements. A team, which can include administration, teachers, guidance counselors and others, will develop the independent study with the student and the family.