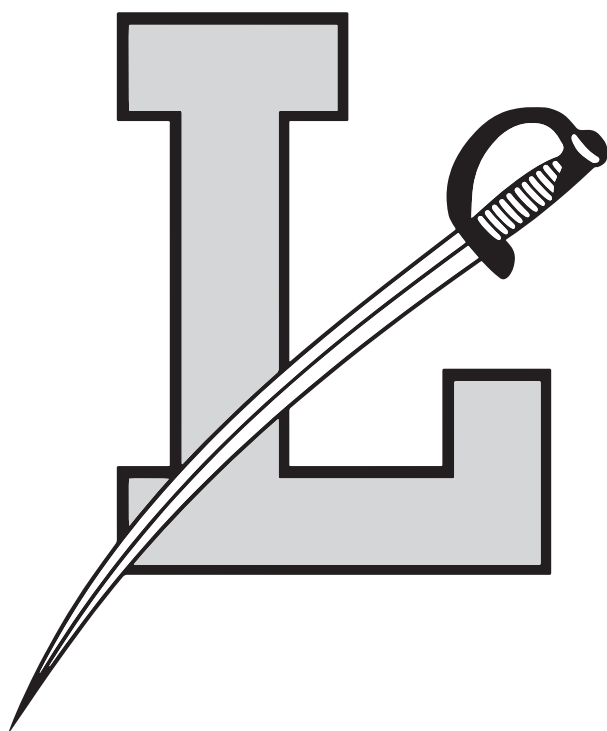


# **LEDYARD HIGH SCHOOL**



**PROGRAM OF STUDIES  
2022-2023**

## **GRADUATION REQUIREMENTS**

<b>English &amp; Social Studies</b>	<p style="text-align: center;"><b><u>9 HUMANITIES CREDITS</u></b></p> <p>English - 4 credits            Social Studies -3 credits- World History Modern (1 credit), Civics (1 credit) and US History (1 credit)            Humanities Electives -2 credits (includes world language, performing arts &amp; visual arts)</p>
<b>Math &amp; Science</b>	<p style="text-align: center;"><b><u>9 STEM CREDITS</u></b></p> <p>Math - 3 credits            Science - 3 credits including Systems &amp; Sustainability (.5 credit), Biology (1 credit), Chemistry (1 credit) and Physics (1 or .5 credit)            Math or Science - 1 additional credit            STEM Electives - 2 credits (includes Ag-Science, Business, FCS &amp; Technology)</p>
<b>Physical Education</b>	1 credit
<b>Health &amp; Health 12</b>	.50 credit Sophomore Health .50 credit Senior Health 12 (includes CPR/First Aid)
<b>World Language</b>	1 credit (also counts as a Humanities credit)
<b>Mastery Based Diploma Project (Capstone)</b>	1 credit
<b>Electives</b>	4.0 credits
<b>TOTAL</b>	<b>26 credits</b>

**Requirements starting with the class of 2023**

# PROGRAM OF STUDIES

**2022 - 2023**

Mrs. Amanda Fagan, *Principal*

Mr. William Turner, *Assistant Principal*

Mr. James Buonocore, *Assistant Principal / Athletic Director*

Ms. Cheryl Biekert, *Coordinator of Student Services*

Mr. David Doyle, *Director of School Counseling and Guidance*

Mrs. Britney Duczynski, *School Counselor*

Mrs. Lauren Kane, *School Counselor*

Mrs. Michelle Mathieu, *School Counselor*

Mrs. Christy Toppa, *School Counselor*

Mrs. Carol Schwenk, *Career Development Coordinator*

Ledyard High School  
24 Gallup Hill Road  
Ledyard, CT 06339  
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FAX 860 464-1990  
[www.ledyard.net/lhs](http://www.ledyard.net/lhs)

THE LEDYARD SCHOOL SYSTEM DOES NOT DISCRIMINATE IN ANY OF ITS PROGRAMS OR ACTIVITIES ON THE BASIS OF RACE, COLOR, RELIGIOUS CREED, AGE, MARITAL STATUS, NATIONAL ORIGIN, SEX, SEXUAL ORIENTATION, OR PHYSICAL DISABILITY.

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# LEDYARD HIGH SCHOOL VISION OF THE GRADUATE

*Ledyard High School is a learning community dedicated to the cultivation of skills essential for success in a rapidly-evolving society.*

At Ledyard High School, we believe our graduates should demonstrate the following:

**Collaboration.** Colonel Graduates will demonstrate an ability to work effectively with others, sharing ideas, acknowledging one another's strengths, and collaborating to produce presentations, projects, performances, or events.

**Communication.** Colonel Graduates will demonstrate an ability to communicate information clearly and effectively through a variety of media, including written, oral, visual, musical, and/or video productions.

**Problem Solving.** Colonel Graduates will demonstrate an ability to solve problems of varying complexity across a variety of content areas.

**Critical Thinking.** Colonel Graduates will demonstrate critical thinking skills to find solutions, support arguments, and overcome challenges in a variety of content areas.

**Perseverance.** Colonel Graduates will demonstrate perseverance in academic and extracurricular settings by working through and past obstacles in pursuit of goals.

**Creativity.** Colonel Graduates will demonstrate creativity through their participation in fine arts courses as well as through their inventive approaches to learning activities in a variety of settings.

## GENERAL INFORMATION

### School Counselors:

Your school counselor is prepared and willing to assist you in academic, career, and personal/social matters. You are invited and encouraged to seek his/her assistance as you plan for appropriate courses.

### Course Selection:

The selection of courses is an important decision-making event as students plan and prepare for the future. Choosing courses to prepare students for the variety of paths and opportunities upon graduation needs to be done with serious consideration. Gathering information to make a wise decision is an important part of the process. Information is available through parents, teachers, counselors, and this book. Students are encouraged to discuss possibilities with their parents, teachers, school counselor, and other appropriate sources and to read this book thoroughly before arriving at decisions.

It is important to observe prerequisites concerning past achievement and previous courses taken. Prerequisites are listed in the description of each course. It is also important to pay special attention to those courses that are required for graduation.

- **Students in the Class of 2023 must be scheduled for a minimum of 7 credits.**
- **Students in the classes of 2024, 2025, and 2026 should be scheduled for 8 credits.**

Selection of subjects is to be made from the courses listed in this book. Worksheets for each grade are provided at the back of the book.

Due to irresolvable conflicts, some students may not be scheduled for all the courses they desire.

### Grouping:

Ledyard High School does not have “tracks” such as college prep, business, or general. Homogeneous grouping is used in some courses. Grouping is done by school personnel considering teacher recommendations, past academic performance, and performance on standardized tests.

## GENERAL NOTATIONS

1. We are aware that you are making your course selection at a time of the year when you do not know whether you will pass a course or meet the minimum grade required as a prerequisite for some courses. In such cases you are to use your best honest judgment and self-evaluation to estimate the final grade you will receive in your present courses. You may have time to raise your mark to minimum levels if you are presently below these levels. We hope this will serve as an incentive in appropriate cases.
2. Courses that meet alternate days for the entire year will earn 1.00 credit. Courses that meet alternate days for one semester will earn .5 credit.
3. One credit of World Language is required. Three credits in one world language are

recommended by most colleges rather than two credits in two languages. Refer to college catalogs for language requirements.

4. Every freshman and sophomore is required to participate in physical education. One (1) credit in physical education is required for graduation. Medical excuses in writing from a physician must be provided to the school counselor.
5. Every freshman is required to take English 9, World History Modern, Mathematics, Biology, Systems & Sustainability, and Physical Education.
6. Some courses may not be offered in the event of enrollment, staffing, or budgetary deficiencies.

PLEASE SEE YOUR SCHOOL COUNSELOR REGULARLY TO ASCERTAIN FULFILLMENT OF GRADUATION REQUIREMENTS OR TO CLARIFY THEM.

## **CHANGES IN PROGRAM**

Changes in schedules may be made within the first 6 days of the semester. During this 6 day drop/add period students may drop a course with no penalty. An extension to the 6 day policy may be granted by the principal or his/her designee.

## **REPORT CARDS**

### Grades

Grades are accessible at any point during the school year through the PowerSchool parent portal. Printed report cards will be issued and mailed home at the end of the school year.

Ledyard High School uses a letter grading system, which includes the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I (incomplete), M (medical excuse), NP (not pass), WP (withdrawn passing), and WF (withdrawn failing). Students who receive an I (incomplete) will have 10 school days to make up all required work.

.50 credit semester course grades are calculated as follows:

Each marking period	50%
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Final grades are the average of the quarter grades.

1.00 credit full year course grades are calculated as follows:

Each marking period	25%
---------------------	-----

Final grades are the average of the semester grades.

However, under unusual circumstances teachers may request authorization from the principal to assign a final grade that is not an average as outlined above.

Teachers will provide comments on progress reports and report cards, which will be useful to parents and students in understanding academic grade achieved.

## Honor Roll

Each marking period the administration will publish an honor roll of students who have no grade below B- (or A-) during the quarter. The honor roll has two divisions:

Honors:	No grade below B-
High Honors:	No grade below A-

Pass/Not Pass courses are not included. Any student with a grade of “Incomplete” will be excluded from the Honor Roll.

## Rank in Class

Ledyard High School employs a “weighted grading system” to determine rank in class. The class rank is significant to those students who are seeking admission to colleges and universities and/or special employment opportunities.

Class rank is determined by taking into account every grade that is earned by the student during the year, including the exam (and summer school), for all four years of high school. Pass/Not Pass courses are not included.

The curriculum contains a wide variety of courses at various levels of academic challenge including Advanced Placement courses and honors level courses. Students are allowed considerable choice in the selection of courses and are encouraged to strive for academic excellence. A system of grade weighting recognizes the differences in student achievement.

Four levels of weighting are as follows:

- Level 3:** These courses reflect the academic demands of four-year colleges. As such, they require a high degree of proficiency in the skills related to the field of study. Reading/writing/project assignments require non-class time to complete. Review and reinforcement of needed skills are ongoing. More guidance is offered to students at this level than at the other two levels.
- Level 2:** These courses reflect the academic demands of four-year colleges and as such require a high degree of proficiency in the skills related to the field of study. Reading/writing/project assignments require a significant amount of non-class time to complete. Review and reinforcement of needed skills are ongoing. Most 2-level courses are dependent upon the completion of prerequisites or instructor approval.
- Level 1:** These courses are closely aligned with the academic demands of four-year colleges and require a high degree of proficiency in all areas. Independent thinking, intrinsic motivation, and complex problem-solving skills are among the stringent prerequisites for enrollment, along with a willingness to spend significant non-class time completing assignments. These courses require in-depth study, independent reading and research and/or preparation of comprehensive papers and reports.



**AP Level:** These courses must conform to the standards set by the College Board.

IF YOU OR YOUR PARENTS HAVE ANY QUESTIONS, PLEASE CONTACT YOUR SCHOOL COUNSELOR.

## PROMOTION

A student must have earned the following credits by the last Friday of the summer vacation of each year in order to be promoted to the next class:

Grade 9	5
Grade 10	10
Grade 11	18

**All credits and requirements for graduation must be completed before graduation for the student to participate in the graduation ceremony. No exceptions are allowed to this policy.**

## UNIVERSITY OF CONNECTICUT EARLY COLLEGE EXPERIENCE

UConn Early College Experience (ECE) provides academically motivated students the opportunity to take UConn courses while still in high school. These challenging courses allow students to preview college work, build confidence in their readiness for college, and earn college credits that provide both an academic and a financial head start on a college degree.

ECE instructors, who are certified as adjunct professors by UConn faculty, create a classroom environment fostering independent learning, creativity and critical thinking - all pivotal for success in college. The students benefit by taking college courses in a familiar setting that is conducive to learning. Ledyard High School offers ECE courses in French, Marine Science, Floral Art, Horticulture and Animal Science. To support this rigorous learning, University of Connecticut library resources are also available to students.

ECE students must successfully complete the course with a grade of C or better in order to receive university credit. UConn credits are transferable to many colleges and universities. For additional information visit: [www.ece.uconn.edu](http://www.ece.uconn.edu).

## ADVANCED PLACEMENT

Advanced Placement (AP) is an intensive program of college-level courses and examinations sponsored by the College Board. Students enrolled in an AP course are expected to take the AP examination offered in May. Each college has its own policy for granting AP credit based on the examination score. Participation in and completion of an AP course does not guarantee college credit.

## **NEW LONDON SCHOLARS PROGRAM**

Each semester two superior Ledyard High School students may enroll at no cost in a course at Connecticut College. Students must enroll in a class that is offered after school hours due to our rotating A/B schedule. The students receive full college credit, and the subject area is determined by the student in conjunction with a Connecticut College advisor.

High School credit may be awarded at the student's request with administration approval. Courses will be weighted as a level 1 equivalent and will be assigned one credit for a three or four credit college course. Qualified students can obtain further information from their counselors.

## **PROJECT LEAD THE WAY**

Project Lead the Way is a nonprofit organization organized to help schools give students the knowledge they need to excel in high-tech fields. The high school program, when combined with traditional mathematics and science courses, introduces students to the scope, rigor, and discipline of engineering prior to entering college. However, those not intending to pursue further formal education will benefit greatly from the knowledge and logical thought processes that result from taking some or all of the courses provided in the curriculum.

PTLW adheres to national standards in math, science, and technology. Classroom instruction, generally one-third theory and two-thirds application, gives students meaningful, hands-on experience in problem solving, teamwork, and project-based learning. They also have the opportunity to earn college credit for their work.

## **STUDENT SUCCESS PLAN**

Student Success Plans (SSP) are individualized, student-driven plans designed to address student needs and connect interests, skills, and coursework to post-secondary educational and career goals. Student Success Plans were developed by the Connecticut State Department of Education and are designed to monitor grades 6 through 12. SSPs consist of three major components: academic, career and personal/social. These components will be delivered through embedded lessons in our existing core and elective curriculum, our school counseling curriculum, and through our advisory program.

## **COLLEGE AND CAREER PREPARATION TIME LINE**

The following is a guide to follow in preparing for college and career.

### **9th Grade**

- Take challenging classes.
- Connect your interests to one of the state's career clusters and take appropriate courses within the cluster. (SSP)
- Create a Khan Academy account for SAT preparation.
- Get involved in activities at school and in the community. Volunteer your time.
- Continue building the Student Success Plan by completing annual goals, the "Learning Style Inventory" and "Career Interest Profiler" assessments.

- Get to know the Career Center.
- Talk with adults about their jobs. What do they like and dislike? What educational preparation is required?
- Read.
- Start to plan financially for college.
- Plan summer experiences that might develop new skills.

### **10th Grade**

- Explore a variety of courses. Take challenging classes.
- Connect your interests to one of the state’s career clusters and take appropriate courses within the cluster. (SSP)
- Make sure you are meeting all graduation requirements.
- Continue involvement in school and community activities. Volunteer your time.
- Continue building the Student Success Plan by completing annual goals and the “Do What You Are” personality inventory.
- Use Naviance and the Career Center to research careers and colleges. (SSP)
- Plan to take appropriate Advanced Placement and Uconn ECE courses.
- Read.
- Explore and discuss college options.
- Take the required PSAT school day in October for practice.
- If you haven’t already, create a Khan Academy account for SAT preparation.
- Consider summer programs at colleges or other summer opportunities that may help you to develop new skills or strengthen existing ones.

### **11th Grade**

- Continue taking challenging courses.
- Ensure you are meeting graduation requirements.
- Continue involvement in school and community activities. Volunteer your time.
- Continue building the Student Success Plan by completing annual goals, building a resume and utilizing Naviance and the Career Center to search for appropriate careers and colleges.
- Connect your interests to one of the state’s career clusters and take appropriate courses within the cluster. (SSP)
- If you are planning to play a sport or hope to receive an athletic scholarship at a Division I or II college, be sure courses meet NCAA Clearinghouse requirements.
- Take the required PSAT school day in October for practice.
- Take the ASVAB (optional).
- Plan college visits. Take college tours, talk to faculty members and students, and get to know the institutions thoroughly.
- If you haven’t already, create a Khan Academy account for SAT Preparation.
- Look carefully at costs and budgeting for further education. Attend Financial Aid Night (Fall). Explore financial aid and scholarship opportunities.
- Check to see if applications for certain programs need to be made this year, for example appointments to a military academy.
- Explore job-shadowing options with your school counselor and the Career Center.
- Take the required SAT school day administration in the Spring.
- Register for the June or October SAT administration at LHS if you would like an additional SAT score.
- Register for the ACT if required by your selected college.

- Speak with graduates who have attended college or who have entered careers about their experiences.
- Attend College/Naviance night for juniors in the Spring.
- Attend the College Fair in the Fall.
- Carefully select courses for your senior year.
- Read.
- Plan enriching summer experiences.

## 12th Grade

- Continue to take challenging classes.
- Be certain you are meeting all graduation requirements.
- Continue involvement in school and community activities. Volunteer your time.
- Connect your interests to one of the state’s career clusters and take appropriate courses within the cluster. (SSP)
- Continue building the Student Success Plan by completing annual goals, updating your resume and completing the senior exit survey.
- Meet with your counselor and utilize Naviance to assist you in managing the college application process. Request teacher recommendations as early as possible. Submit your applications to your counselor at least 10 school days before each college deadline. (SSP)
- Apply for financial aid and scholarships. Complete the Free Application for Federal Student Aid (FAFSA) and College Board CSS PROFILE (if applicable). Attend Financial Aid Night (with your parents—Fall). Complete any special financial aid applications from individual colleges.
- Register and take the SAT and/or the ACT if required. Be sure to send scores to colleges/universities to which you are applying.
- Complete and submit all NCAA Clearinghouse Students Release Forms (online) if you are planning to play a sport or receive an athletic scholarship at a Division I or II college.
- Talk with graduates about their college experiences and career choices.
- Attend the College Fair in the Fall.
- Attend College Planning Night in the Fall.
- Visit colleges. Take tours, talk with faculty and students, sit in on classes, spend the night, and eat in the dining hall. Get to know the institutions as well as you can.
- Plan summer experiences that will strengthen and expand your skills and opportunities.
- Read.

## IMPORTANT FACTORS IN PREPARING FOR COLLEGE ADMISSIONS

### Academic Preparation:

- Four credits of English at the most challenging level possible
- At least three credits of mathematics including Algebra I, Geometry, and Algebra II. Students who are able to take more advanced mathematics courses should do so to open more options for college study.
- At least three credits of science. This should include at least two credits of science classes with laboratory experience (Biology, Chemistry, and Physics plus Systems & Sustainability).

- At least 3.0 credits of social studies (World History Modern, Civics and United States History). Students with interest and ability should take more.
- A minimum of two credits in a single world language. Many colleges recommend three credits. Colleges may require a student with only two credits of world language in high school to take a year of world language in college.

### **Athletics, Extracurricular Activities, and Community Service:**

Participation and/or leadership in these areas are very important. Skills and attitudes learned through these activities play a significant role in determining a student's success in college and in life.

### **Admission Tests:**

Usually the SAT or ACT is required. The best preparation for the SAT is taking the PSAT in the sophomore and junior years. Reading widely, writing frequently and developing vocabulary contribute to improved Critical Reading, and Writing scores. Taking challenging mathematics courses positively affects Mathematics scores. Utilizing the Khan Academy for SAT Preparation may also be helpful. Students may also wish to take the ACT.

### **Exposure to the Arts:**

Colleges usually like students to have experience in this area.

### **Computer Competency:**

Students should be fluent in the use of computer technology.

### **A Strong Application:**

This includes recommendations from counselors and teachers and an essay that is carefully thought out and well written.

Personal Communication with the college representatives, admissions officers, and/or college department members through visitations, interviews, phone calls, and written correspondence

### **REMEMBER:**

- It is never too late to gain skills or experience necessary for further education and career success.
- There are many types of colleges and higher education programs, some with unique requirements (such as portfolios or auditions). See your school counselor.
- Do not be discouraged by what you feel are insufficient SAT or ACT scores or by past difficulties. Explore many options and be persistent in your college and career search.

## CAREER CLUSTERS & PATHWAYS

Career interest areas provide a valuable context in which students are better able to learn challenging academic concepts. Careers are “clustered” according to common knowledge and skills, not industries. Career clusters differ from standardized occupational classifications developed by the U.S. Department of Labor. Clusters are not a vehicle for tracking or job training.

**Career Pathways** are recommended sequences of courses that provide foundation knowledge and skills in a chosen career area, qualifying for entry-level employment in technical areas and preparing students for the more rigorous technical courses in college. Pathways do not limit choices; students can change from one to another as they develop more realistic goals and objectives. Pathways meet academic standards and grade-level expectations as well as postsecondary entry/placement requirements. An additional advantage of following an articulated curriculum is that it may provide opportunities for students to earn college credit through dual/concurrent enrollment or articulation agreements.

Please see the following pages for the Career Cluster/Pathway Chart. This chart is also available on our career center webpage

[http://ledyardlhs.ss7.sharpschool.com/guidance/career\\_center](http://ledyardlhs.ss7.sharpschool.com/guidance/career_center)

<b>CAREER PATHWAY</b>	<b>SUGGESTED COURSES</b>	<b>LHS COURSES</b>
<p><b><u>Agriculture, Food and Natural Resources</u></b> - careers in the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources.</p>	<p>Agricultural Science; Animal Anatomy/Physiology; Animal Science; Biological Science; Biology; Botany; Chemistry; Earth/Environmental Science; Horticulture; Livestock Management; Natural Resources &amp; Management</p>	<p>Agri-Science; Anatomy/Physiology; Biology; Bio Ethics; Human Biology; Chemistry; Earth Science; Environmental Science; Marine Science; Systems &amp; Sustainability</p>
<p><b><u>Architecture and Construction</u></b> - careers in designing, planning, managing, building and maintaining the physical infrastructure environment, e.g. buildings, homes, parks, bridges, roads and highways, etc.</p>	<p>Advanced Algebra; Calculus; Computer-Aided Drafting/Applications; Design &amp; Construction; Geometry; Applied Technology, Safety, Health &amp; the Workplace Environment; Woodworking</p>	<p>Agri-Science; Algebra; Pre-Calculus; Calculus, Physics; Civil Engineering &amp; Architecture; Computer Science Principles; Geometry; Housing &amp; Interior Design; Integrated Math; Intro to Engineering Design; Metals; Power Mechanics; Principals of Engineering; Woods</p>
<p><b><u>Arts, A/V Technology and Communications</u></b> - careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content, e.g. visual and performing arts and design, journalism, etc.</p>	<p>Art/A-V Technology &amp; Communications; Band/Choir; English Composition; Fashion/Interior Design; Graphic Design; History; Information Technology; Journalism; Literature; Music Theory; Performing Arts; Photography; Speech/Communication; Technical Writing; Theater &amp; Playwriting</p>	<p>Painting Studio; English; Art; World History; Band/Choir; Music Theory; Music Production; Ceramics; Sewing &amp; Fashion; Creative Writing; Journalistic Publications; Drama; Drawing; Housing &amp; Interior Design; Public Speaking; Print &amp; Book Making; Sculpture; Shakespeare on Film.</p>
<p><b><u>Business, Management and Administration</u></b> - careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.</p>	<p>Accounting; Advertising; Algebra; Business Law; Business Management; Calculus; Computer Applications; Economics; English Literature/Composition; Finance; Geometry; Office Technologies; Physics; Speech/Communication; Statistics; Technical Writing; World Issues; World Languages</p>	<p>Accounting; Algebra; Pre-Calculus; Calculus; English; Physics; French; Spanish; Current Issues; Geometry; Integrated Math; Public Speaking; World History; Personal Finance; Computer Science Principles; Statistics; Marketing.</p>

<b>CAREER PATHWAY</b>	<b>SUGGESTED COURSES</b>	<b>LHS COURSES</b>
<p><b><u>Education and Training</u></b> - careers in planning, managing and providing education and training services, and related learning support services.</p>	<p>American Government/History; Career Exploration in Education &amp; Training; Child Development/Psychology; Computer Applications; English Composition; Home Economics; Parenting; Philosophy; Psychology; Social Studies; Sociology; Speech/Communication; Statistics; World Issues; World Languages</p>	<p>Anthropology; English; Psychology; Spanish; French; US History; Civics; Child Development; Current Issues; Public Speaking; Understanding Self &amp; Relationships; World History; Genocide; 20th Century American Culture; African American/Black &amp; Puerto Rican/Latino Studies; Computer Science Principles; Statistics; Marketing.</p>
<p><b><u>Finance</u></b> - careers in services for financial and investment planning, banking, insurance, and business financial management.</p>	<p>Accounting; Algebra; Banking &amp; Investing; Business Management &amp; Statistics; Calculus; Computer Applications; Economics; Finance; Geometry; International Business; Office Technology; Research/Market Research; Statistics; Technical Writing</p>	<p>Accounting; Algebra; Pre-Calculus; Calculus; English; Geometry; Integrated Math; Personal Finance; Computer Science Principles; Marketing; Statistics.</p>
<p><b><u>Government and Public Administration</u></b> - focuses on the careers unique to government, including governance, national security, regulation, and management and administration at the local, state, and federal levels.</p>	<p>American Government &amp; Comparative Political Systems; American History; Civics; Geography; Government &amp; Public Administration; Information Technology; Modern Europe &amp; Western Traditions; Psychology; Sociology; Speech/Communication; Statistics; World Concepts &amp; Themes; World Issues; World Languages; Writing/Composition</p>	<p>Anthropology; English; Psychology; Spanish; French; US History; Civics; Current Issues; Public Speaking; Understanding Self &amp; Relationships; World History; Genocide; 20th Century American Culture; African American/Black &amp; Puerto Rican/Latino Studies; Statistics.</p>
<p><b><u>Health Science</u></b> - careers in planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.</p>	<p>Advanced/Technical Algebra; Anatomy/Physiology; Biology/Biological Science; Calculus; Certified Nurses Aide Training; Chemistry; Health Science &amp; Healthcare; Medical Ethics; Medical Math; Medical Terminology; Microbiology; Nutrition; Physics; Psychology; Research Methods; Research/Technical Writing; Sociology; Statistics; World Language</p>	<p>Algebra; Anatomy &amp; Physiology; Anthropology; Biology; Bio Ethics; Human Biology; Pre-Calculus; Calculus; Chemistry; Physics; Psychology; Spanish; French; Forensic Science; Health; PE; Sports Psychology; Understanding Self &amp; Relationships; Genocide; Statistics.</p>



<b>CAREER PATHWAY</b>	<b>SUGGESTED COURSES</b>	<b>LHS COURSES</b>
<p><b><u>Hospitality and Tourism</u></b> - careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services.</p>	<p>Accounting; Business/Hospitality Management; Communications/Speech; Culinary Arts/Food Service; Food/Beverage Management; Hospitality &amp; Tourism; Marketing; Nutrition; Personal Finance; Sports; World Geography/Cultures</p>	<p>Accounting; Psychology; Spanish; French; Band/Choir; Music Production; Culinary Arts; World History; Consumer Math; PE; Public Speaking; Sports Psychology; Marketing; Personal Finance; Health.</p>
<p><b><u>Human Services</u></b> - careers that prepare individuals for employment that relates to families and human needs.</p>	<p>Child Growth &amp; Development/Child Psychology; Early Childhood Education &amp; Services; Family Life Education; Family Relations; Independent Living; Literacy &amp; Language; Occupational Childcare; Parenting; Personal Finance; Psychology; Public Speaking; Safety &amp; Health for Children; Sociology; Theology; World Issues</p>	<p>Anthropology; Psychology; Spanish; French; Child Development; Health; Public Speaking; Consumer Math; Understanding Self &amp; Relationships; Sports Psychology; World History; Genocide; 20th Century American Culture; African American/Black &amp; Puerto Rican/Latino Studies; Personal Finance; Current Issues.</p>
<p><b><u>Information Technology</u></b> - entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services.</p>	<p>Accounting; Advanced Algebra; Calculus; Computer Systems; Desktop Publishing; Economics; Geometry; Information Technology; Physics; Programming &amp; Software Development/Design; Spreadsheet/Database Applications; Statistics; Technical Writing; Trigonometry; Webpage Design; Word Processing Applications</p>	<p>Accounting; Algebra; Pre-Calculus; Calculus; Computer Science Principles; English; Physics; Geometry; Integrated Math; Statistics.</p>
<p><b><u>Law, Public Safety and Security</u></b> - careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.</p>	<p>American Government; Civics; Civil Law; Courts &amp; the Judicial Process; Criminal Justice; Ethics &amp; Social Issues; Information Technology Applications; Law, Public Safety, Law Enforcement Services; Political Science; Procedural Criminal Law; Psychology; Sociology; Speech/Communication</p>	<p>Anthropology; Psychology; English; Spanish; French; Current Issues; Understanding Self &amp; Relationships; US History; Bio Ethics; Forensic Science; Civics; Genocide; Public Speaking.</p>

<b>CAREER PATHWAY</b>	<b>SUGGESTED COURSES</b>	<b>LHS COURSES</b>
<p><b><u>Manufacturing</u></b> - careers in planning, managing and performing the processing of materials into intermediate or final products, and related professional and technical support activities.</p>	<p>Advanced Algebra/Calculus; Chemistry; Computer Applications; Design for Manufacturability; Electronics; Geometry; Manufacturing Occupations/Technology; Manufacturing Production Processes; Materials &amp; Processes; Physics; Safety in the Workplace; Quality Assurance Concepts &amp; Techniques; Woodworking</p>	<p>Agri-Science; Algebra; Pre-Calculus; Calculus; Chemistry; Computer Science Principles; Digital Electronics; Geometry; Integrated Math; Physics; Sewing &amp; Fashion; Metals; Woods; Print &amp; Book Making; Sculpture.</p>
<p><b><u>Marketing, Sales and Service</u></b> - careers in planning, managing, and performing marketing activities to reach organizational objectives.</p>	<p>Accounting; Advertising; Algebra; Business &amp; Technical Writing; Business Management; Calculus; Computer Applications; Entrepreneurship/Small Business Ownership; Marketing &amp; Sales; Office Technology; Real Estate Practices; Research/Market Research Methods; Speech/Communication; Statistics</p>	<p>Accounting; Algebra; English; Integrated Math; Pre-Calculus; Calculus; Computer Science Principles; Psychology; Spanish; French; Public Speaking; Creative Writing; Journalistic Publications; Statistics; Marketing; Personal Finance; Print &amp; Book Making.</p>
<p><b><u>Science, Technology, Engineering and Mathematics (STEM)</u></b> - careers in planning, managing, and providing scientific research and professional/technical services, including research and development services.</p>	<p>Advanced Algebra/Calculus; Chemistry/Organic Chemistry; Civil Engineering &amp; Architecture; Computer Integrated Manufacturing; Differential Equations; Digital Electronics; Engineering Design/Analysis/Processes/Innovation; Information Technology Applications; Microbiology; Physics; Speech/Communication; Statistics; Technical Writing; Trigonometry</p>	<p>Agri-Science; Algebra; Pre-Calculus; Calculus; Chemistry; Computer Science Principles; English; Physics; Public Speaking; Civil Engineering &amp; Architecture; Digital Electronics; Intro to Engineering Design; Principals of Engineering; Statistics; Systems &amp; Sustainability.</p>
<p><b><u>Transportation, Distribution and Logistics</u></b> - careers in the planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water, and related professional/technical support services.</p>	<p>Advanced Algebra; Applications in Transportation, Distribution &amp; Logistics; Auto Mechanics; Calculus; Computer Applications; Energy, Power, Transportation &amp; the Environment; Geometry; Land, Air, Water &amp; Space Transportation Systems; Physics; Vehicular Transportation Systems</p>	<p>Agri-Science; Algebra; Pre-Calculus; Calculus; Physics; Geometry; Integrated Math; Digital Electronics; Environmental Science; Earth Science; Power Mechanics; Computer Science Principles; Systems &amp; Sustainability.</p>

## COURSE LOCATOR

Accounting I . . . . .	28	Art (Advanced Studio) . . . . .	26
Accounting II . . . . .	28	Beginning Keyboard . . . . .	49
African American/Black & Puerto Rican/Latino Studies . . . . .	64	Bioethics . . . . .	58
Agri-Science I . . . . .	19	Biology . . . . .	54
Agri-Science II . . . . .	19	Calculus I . . . . .	46
Agri-Science III . . . . .	20	Capstone Senior Project . . . . .	30
Agri-Science IV . . . . .	20	Ceramics I . . . . .	26
Ag III/Uconn ECE Animal Behavior & Training . . . . .	22	Ceramics II . . . . .	26
Ag III/Uconn ECE Intro to Companion Animals . . . . .	22	Chamber Choir . . . . .	48
Ag III/Uconn ECE Floral Art S1 . . . . .	22	Chemistry . . . . .	55
Ag III/Uconn ECE Horticulture Fundamentals S2 . . . . .	23	Child Development . . . . .	40
Ag IV/Uconn ECE Advanced Floral Design S1 . . . . .	23	Chorale . . . . .	50
Algebra I . . . . .	44	Civics . . . . .	61
Algebra II . . . . .	45	Civil Engineering & Arch . . . . .	69
Algebra III . . . . .	45	Colonel Singers . . . . .	50
Anatomy and Physiology . . . . .	59	Computer Science Principles . . . . .	68
Anthropology . . . . .	62	Concert Choir . . . . .	49
AP Biology . . . . .	55	Consumer Math . . . . .	47
AP Calculus AB . . . . .	46	Creative Writing . . . . .	35
AP Chemistry . . . . .	56	Creative Writing- Prose . . . . .	36
AP English Language and Composition . . . . .	34	Creative Writing-Poetry . . . . .	36
AP English Literature and Composition . . . . .	34	Culinary Arts I . . . . .	39
AP Environmental Science . . . . .	60	Culinary Arts II . . . . .	39
AP Physics 1 . . . . .	57	Current Issues . . . . .	62
AP Physics 2 . . . . .	58	Digital Electronics . . . . .	68
AP Psychology . . . . .	63	Drama . . . . .	36
AP Spanish . . . . .	74	Drawing I . . . . .	25
AP Statistics . . . . .	46	Drawing II . . . . .	25
AP United States History . . . . .	62	Earth Science . . . . .	54
Art I . . . . .	25	English 9 . . . . .	32
Art II . . . . .	26	English 10 . . . . .	33
		English 11 . . . . .	33
		English 12 . . . . .	33
		Exploring Physics . . . . .	56
		Forensic Science . . . . .	60
		French I . . . . .	72
		French II . . . . .	72
		French III . . . . .	72

French Grammar and Composition/UConn ECE . . . . .	73	Physical Education Advanced . . . . .	52
French Culture and Conversation/Uconn ECE . . . . .	73	Physical Education . . . . .	52
Geometry . . . . .	45	Physics . . . . .	57
Guitar I . . . . .	49	Power Mechanics . . . . .	70
Guitar (Advanced) . . . . .	49	Pre-Calculus . . . . .	46
Health . . . . .	41	Principles of Engineering . . . . .	68
Health 12 . . . . .	41	Print & Book Making . . . . .	25
Housing & Interior Design . . . . .	40	Public Speaking . . . . .	36
Human Biology . . . . .	58	Sculpture . . . . .	26
Immersion Spanish I . . . . .	75	Select Singers . . . . .	50
Immersion Spanish II . . . . .	75	Sewing & Fashion . . . . .	39
Immersion Spanish III . . . . .	75	Shakespeare on Film . . . . .	36
Independent Study . . . . .	42	Spanish I . . . . .	74
Integrated Math I . . . . .	43	Spanish II . . . . .	74
Integrated Math II . . . . .	44	Spanish III . . . . .	74
Integrated Math III . . . . .	44	Spanish IV . . . . .	74
Introduction to Engineering Design . . . . .	67	Sports Psychology . . . . .	53
Jazz Band . . . . .	49	Statistics . . . . .	46
Journalistic Publications I. . . . .	35	Symphonic Band . . . . .	50
Journalistic Publications II. . . . .	35	Systems & Sustainability . . . . .	60
Marine Science . . . . .	59	Transition & Organization Skills 11-12 . . . . .	65
Marine Science/UConn ECE . . . . .	59	Transition & Organization Skills 9-10 . . . . .	65
Marketing . . . . .	29	20th Century American Culture . . . . .	64
Metals I . . . . .	69	Understanding Self and Relationships . . . . .	40
Metals II . . . . .	69	United States History . . . . .	61
Modern Genocide Studies . . . . .	63	Woods I . . . . .	69
Music Appreciation . . . . .	48	Woods (Advanced) . . . . .	70
Music Production . . . . .	48	World History Modern . . . . .	61
Music Theory I . . . . .	48	World History: Ancient to Medieval . . . . .	62
Painting Studio . . . . .	24		
Personal Finance . . . . .	29		

# AGRI-SCIENCE & TECHNOLOGY

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Agri-Science & Technology offerings.

## What can I do with a career in Agriculture?

<b>Agriculture Technology</b>	Meat Processor	Agricultural Researcher
Agricultural Engineer	Meat Scientist	Agricultural Sales
Civil Engineer	Pet Groomer	Cooperative Extension Educator
Construction	Pet Service Business Owner	Farmer
Environmental Engineer	Process/Market/Test Animal Products	Feed Sales
Farrier or Blacksmith	Reproductive Technician	Food Processor
Greenhouse Construction/Repair	Veterinarian	High School Agriculture Educator
Large Equipment Sales & Repair	Veterinary Assistant or Technician	Soil Scientist
Mason	Zoologist	Technical Writer
Small Engine Sales & Repair	<b>Aquaculture/Marine Science</b>	<b>Horticulture/Plant Science</b>
Technical Marketing Representative	Production Aquaculture	Botanist
Mechanical Engineer	Aquaculture Business Manager	Crop Specialist
Welder	Fish or Shellfish Hatchery Manager	Florist, Floral Designer
<b>Animal Science</b>	State or Federal Regulator	Gardener
Animal Behaviorist	Aquatic Animal Nutritionist	Greenhouse Grower
Animal Nutritionist	Aquaculture Biotechnologist	Horticultural Sales
Animal Trainer	Aquaculture Equipment Design	Landscape Designer
Biotechnician	Marine Biology	Landscape
Geneticist	Ocean Engineer	Plant Breeder
Groomer	Aquaaponics	Plant Broker
Horse Trainer	<b>General Agriculture</b>	Public Garden/Conservatory Mgr.
Humane Educator	Agricultural Buyer	Vegetable/Fruit Grower
Kennel Operator/Manager	Agricultural Inspector	
Livestock Marketing	Agricultural Journalist	

## ALL COURSES IN THE AGRI-SCIENCE & TECHNOLOGY AREA QUALIFY AS STEM CREDIT.

1951  
Agri-Science I  
(STEM)

1952  
Agri-Science II  
(STEM)

Agri-Science I and II (Agricultural Career Foundations) consist of a series of units designed to give an introduction to the Agri-Science Program and the field of agriculture. A broad foundation in the basic areas that constitute American agriculture is offered in these units. A student can make a more intelligent choice of the field or specialized area in which they wish to concentrate after becoming better acquainted with these fundamentals.

Agri-Science I and II units are aquaculture systems, animal systems, plant systems, power technical and structural systems, record keeping, natural resources, soil science, and environmental science. Leadership skills, including an introduction to the National FFA Organization, Young Worker Safety and Supervised Agricultural Experience (SAE) are also covered in these classes.

All freshmen and new students to the program take 1951.

(1 credit)

Students who successfully complete Agri-Science I will take Agri-Science II.

(2 credits – 1 credit each semester)

1953  
Agri-Science III  
(STEM)

Students who successfully complete Agri-Science II will take Agri-Science III and then Agri-Science IV where they will have an opportunity to specialize in one of four areas: aquaculture systems, power/technical and structural systems, animal systems, and plant systems.

1954  
Agri-Science IV  
(STEM)

Students will be counseled by their agriculture teachers and SAE advisors to enroll in classes that will best help them achieve their career goals. Most of the time a student will take most of their classes in one specific area; however, classes are designed with the flexibility for course crossover.

A summary of the four specialized areas follows:

#### Aquaculture Systems

Aquaculture Systems involves growing aquatic crops, commercial harvesting of fish and shellfish, construction, maintenance, and repair of related equipment. Some topics covered are equipment repair and maintenance, system design and construction, fish management and production, aquaculture projects, aquaponics, marine ecosystems, water quality, and shellfish and finfish aquaculture. All aquaculture students are encouraged to take Marine Science in the Science Department.

#### Power, Technical and Structural Systems

Students studying power, technical and structural systems will develop skills and knowledge in the areas of woodworking, metal fabrication, construction, electrical wiring, equipment operation and maintenance of engines. An emphasis is given to using skills and concepts in agricultural contexts.

#### Animal Systems

Animal Systems is designed for students who are interested in careers working with animals. The selection, care, management of small companion animals and domestic farm animals, animal nutrition, reproduction, heredity, and health management are the focus of this specialized area. Classroom work is enriched through the use of the animal facilities that are designed to provide a student with first-hand experience related to their field of study.

Agri-Science III students have the opportunity to receive a Kennel Assistant & Veterinary Foundations Certificate in addition to taking ECE Animal Behavior & Training and ECE Introduction to Companion Animals. Agri-Science IV students who complete the Veterinary Science course will have the option of testing for the Veterinary Assistant Certification. Students taking the Livestock courses have the opportunity to obtain the FAMACHA Certification and ServSafe Food Handler Certification.

Students enrolled in the Animal Systems Pathway have an opportunity to obtain college credit from Middlesex Community College in conjunction with the Companion Animal and Veterinary Science courses.

VET 100: Introduction to Animal Care - 2 credits

Description: This course is an introduction to practical experience with various species. Basic biological concepts and normative data of the various species including common husbandry practices and diseases are discussed. Restraint and handling methodologies are discussed and practiced.

VET 101: Introduction to Veterinary Technology - 3 credits

Introduction to Veterinary Technology is a course designed as a career exploration course for prospective veterinary technician students. This course introduces the role of the Veterinary Technician to employment opportunities and professional development opportunities in the field. Covered topics include breed differentiation, nutrition, reproduction, and animal behavior. Ethics, animal welfare regulations, state and federal laws are reviewed, including controlled substance laws, occupational safety and health regulations and veterinary practice responsibilities.

### Plant Systems

The goal of Plant Systems is to aid interested students in developing skills and abilities in plant related careers whereby the student receives not only theory but actual practice in “how a plant grows” and “how to grow plants.” Students have the opportunity to learn propagation techniques, pruning, greenhouse management, landscaping, fertilizers, pest control, vegetable and flower production, grounds maintenance, and landscape and floral design. Sustainability and environmental impacts will be discussed and practiced as appropriate.

Students will obtain practical experience on the school grounds and in the department greenhouses or through work or home experience.

## Agri-Science II, III, IV

(2 credits – 1 credit each semester)

2311  
Agri-Science III/  
University of  
Connecticut Early  
College Experience  
Animal Behavior  
& Training  
(STEM)

Application of behavior of cattle, miniature donkeys, sheep, goats, swine, poultry, cats, dogs and companion animals to their management, training and welfare is the focus of this course. **Course Eligibility Guidelines:** Successful completion of Ag I, II and III semester 1, animal systems classes.

This course combines ECE Animal Behavior and Training and Ag III Animal Behavior & Training. It covers topics in evolution of animal behavior, hormones and behavior, learning in animals, animal communication, and social systems. Students will apply the knowledge learned in class by training one of the school animals.

Students who successfully complete this course can earn three college credits from the University of Connecticut.

2309  
Agri-Science III/  
University of  
Connecticut Early  
College Experience  
Introduction to  
Companion Animals  
(STEM)

Basic concepts of nutrition, physiology, health and management of companion animals will be discussed. **Course Eligibility Guidelines:** Successful completion of Ag I and Ag II animal systems classes.

This course combines ECE Introduction to Companion Animals and Ag III Companion Animals. It covers topics in safety restraints, responsible pet ownership, physical exams and medical records, parasites, diseases and dog grooming and training.

Students who successfully complete this course can earn three college credits from the University of Connecticut.

2316  
Agri-Science III/  
University of  
Connecticut Early  
College Experience  
Floral Art  
Semester 1  
(STEM)

The study of flower arrangement as an art form with emphasis on historical background, artistic principles, color harmony and care of perishable media. Individual expression is encouraged in the creation of floral composition. **Course Eligibility Guidelines:** Successful completion of Ag I & II.

This course combines ECE Floral Art with Ag III Floral Art. It covers topics in floral design through the ages, plant physiology, flower care & handling, design styles, wholesale & retail costs and elements of design.



<p>2317 Agri-Science III/ University of Connecticut Early College Experience Fundamentals of Horticulture Semester 2 (STEM)</p>	<p>Science and practice of horticultural plant propagation and culture. Basic concepts of plant structure, growth and function. Integrated pest management. Impact of new technology. Horticulture and the environment. <b>Course Eligibility Guidelines:</b> Successful completion of Ag I &amp; II.</p> <p>This course combines ECE Fundamentals of Horticulture with Ag III Fundamentals of Horticulture. It covers topics in plant structure, growth &amp; function, plant ID, soils, plant propagation, pests and pest management, greenhouse structures, environmental horticulture, nursery production and fruit, vegetable and herb production.</p>
<p>2409 Agri-Science IV/ University of Connecticut Early College Experience Advanced Floral Design Semester 1 (STEM)</p>	<p>In-depth study of post-harvest requirements for specialized floral crops. Exposure to novel floral materials and abstract, tribute, high-style, and wedding designs. Retail price structuring, wire services and mass-production concepts. Course Eligibility Guidelines: Successful completion of Ag I, II, &amp; ECE Basic Floral Art.</p> <p>This course combines ECE Advanced Floral Design to Ag IV Advanced Floral Design. It covers topics in oriental design, contemporary design styles, funeral arrangements, wearable flowers, combs, halos &amp; headbands, wedding bouquets, line arrangement and working with dry and silk flowers.</p>

*All Agri-Science students are required to develop a Supervised Agricultural Experience (SAE) Program. The purpose of the SAE Program is to help students prepare for a career through practical experiences outside class work by applying skills and knowledge acquired in class to real world situations. Students will develop a personalized program with the assistance of a teacher/advisor.*

# ART

The Connecticut Career Clusters, their pathways, and 21st Century Skills are integrated in Art offerings.

## What can I do with a major in Art?

### Art Museums

Administrator, Curator, Publications, Sales  
Art Historian, Art Auctioneer, Art Dealer

### Art Sales

Auction House, Galleries, Department Stores

### Retailing

Fashion Coordinator, Buyer, Display

### Fashion

Fashion Designer, Fashion Merchandising,  
Dress Making, Fashion Consultant,  
Makeup Artist, Costume Designer, Hair Stylist,  
Jewelry Designer, Shoe Designer, Home Staging

### Visual Arts

Cartoonist, Crafts Person (weaver, glassblower,  
potter, blacksmith, woodworker), Graffiti Artist,  
Tattoo Artist, Illustrator, Painter, Sculptor,  
Taxidermist, Food Stylist, Cake Decorator

### Education

Art Teacher, Art Professor, Art History Teacher,  
Art Therapy

### Entertainment

Animator, Design and Production, Video Production,  
Director (Video/TV, Film Audio, Theater),  
Set Designer, Stage Manager, Film Editor,  
Cinematographer

### Design

Graphic Designer, Product Design, Web Developer,  
Logo Designer, Textile Design, Furniture Design,  
Motion Graphics Designer, Multimedia Designer,  
Urban Designer, Floral Design, Golf Course Design

### Photography

Commercial Photographer, Fashion Photographer,  
Forensic Photographer, Industrial Photographer, News  
Photographer, Photojournalist, Wedding Photographer,  
Photo Retouching, Portrait Photographer

## ALL COURSES IN THE VISUAL ARTS QUALIFY AS HUMANITIES CREDIT.

The Art Department offers a variety of courses to interested students in all grade levels. Students wanting to pursue a career in art are encouraged to take art courses each of their four years. Students interested in earning independent study credit should see their school counselor after obtaining a recommendation from the Art Department.

At the culmination of each course, students will be recommended to go on to an upper-level art course if the teacher has observed that the student has the interest and work ethic to be successful in an advanced art course. If the teacher has observed that the student would benefit from taking an art course but may find the advanced art courses too challenging, that student may be recommended to repeat the same course for credit (or take one of the other introductory courses offered). Students taking the same art course for a second time are expected to improve and challenge themselves. Students who do not keep up with the course requirements and/or disrupt the learning environment may not be recommended to take additional art courses.

1903004  
Painting Studio  
(HUMANITIES)

This course introduces first-year painting students to the materials and techniques in painting. Students will paint a variety of subjects. Media may include acrylic, watercolor, water-mixable oil and/or tempera. Experience in composition and color mixing is necessary. Second year students work on developing their painting techniques and pursue more independent ideas in order to discover personal expression in paint.

**Suggested prerequisite: Grade of C in Art I or Drawing I and/or teacher recommendation.**

(.5 credit – meets for one semester)

Open to Grades 10-12.

1905  
Drawing I  
(HUMANITIES)

Drawing I explores a variety of concepts and media. Students have the opportunity to work in charcoal, pastel, pen and ink pencil, colored pencil and scratchboard. Observational drawing includes still life, figure, and landscape. The focus is on using the elements of line, shape, color, value, form and spatial relationships to create 2-D art.

(.5 credit – meets for one semester)

1906  
Drawing II  
(HUMANITIES)

Not an appropriate choice for students who have taken Art I due to repetition of content.

Students will continue working with a variety of media while using more complex techniques and developing their drawing skills. Some exploratory drawing with non-traditional media and independent drawing assignments are included for students to start to develop their own artistic style.

**Suggested prerequisite: Grade of C in Drawing I or Art I.**

(.5 credit – meets for one semester)

1907  
Print and Book Making  
(HUMANITIES)

There are two parts to this course, one focusing on printmaking and the other focusing on book art. Topics under the printmaking portion may include block printing, reduction [block] printing, screen-printing, collagraph, or etching. Different types and colors of printing inks and papers will be explored. Topics under the book art portion may include book-binding, book alteration, interactive books (such as pop-up, folded, or flip style). Different conceptual themes and ideas may be assigned for each book that is created.

**Suggested Prerequisite: Successful completion of Art I or Drawing I.**

(.5 credit \_ meets for one semester)

1911  
Art I  
(HUMANITIES)

Art I is a general introduction to the visual arts. Students become familiar with various media including charcoal, pencil, chalk, pastels, colored pencil, pen and ink, watercolor, tempera, papier-mâché, and marker. Activities include drawing, painting, two-dimensional, and three-dimensional design. Emphasis is on composition, design and color.

1912  
Art II  
(HUMANITIES)

Art II reviews and expands upon the concepts and techniques covered in Art I. Activities include drawing, painting, two dimensional and three-dimensional design. Composition, design, and color are emphasized. Students further develop their artistic style while also developing a portfolio and artist statement.

**Suggested prerequisite: Grade of C in Art I and/or teacher recommendation.**

Open to grades 10-12.

1914  
Advanced Studio Art  
(HUMANITIES)

Advanced Studio Art is a course for serious art students who wish to pursue individualized project ideas. This course provides students the opportunity to further demonstrate competence in the elements and principles of design as they finalize an artist statement and portfolio. Studio critiques are required to further students' ability to discuss art in an academic language.

**Suggested prerequisite: Successful completion of Art 1 and another one credit in art with a C or better and/or teacher recommendation. Open to grades 11-12.**

1908  
Sculpture  
(HUMANITIES)

Students explore the possibilities behind creating 3D sculpture through experimentation of materials and subject matter. Materials may include newspaper, wire, cardboard, paper, and wheat paste. This course will build off of Art 1 and Art 2 curricula. However, both experienced art learners and those taking art for the first time, will enjoy the challenge of being creative and innovative with new materials.

(.5 credit – meets for one semester)

1916  
Ceramics I  
(HUMANITIES)

This course is an introduction to the basics of hand building and glazing techniques. Students will create both functional and non-functional ceramic pieces. The emphasis will be on construction, design, and craftsmanship.

(.5 credit – meets for one semester)

1917  
Ceramics II  
(HUMANITIES)

Ceramics II is a more advanced approach to the creation of both functional and non-functional ceramics through hand building and the use of the potter's wheel. (Three electric wheels are available for student use.) Emphasis is on craftsmanship in both form and surface treatment. Students will be given an opportunity to set up and follow through on independent projects.

**Suggested prerequisite: Grade of C in Ceramics I and/or teacher recommendation.**

(.5 credit – meets for one semester)

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An opportunity exists for students to take **Ceramics III**.

Ceramics III is a course for serious ceramic students who will be expected to create a body of work that focuses on hand building or wheel thrown techniques through student-driven research. Students will have the opportunity to set up and follow through with independent projects with the guidance of the teacher. Students will create an online portfolio of the work they create during the semester. Each student will present the portfolio and their artist statement in a lecture format, which will include visuals, research and other information to further educate their peers.

**Please see the ceramics teacher and your school counselor for requirements.**

1888  
Independent Study  
in Art

Each art teacher may, at their discretion, agree to supervise a limited number (one to two per semester) of Junior or Senior students for an Independent Study in art. Independent Study students may choose to work on a self-driven, long-term project, or prepare a portfolio for college application use. Independent Study students **MUST** be motivated, have a strong work ethic, and have a serious desire to pursue their art. Please see an art teacher and your school counselor for additional requirements.

## BUSINESS & FINANCE TECHNOLOGY EDUCATION

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Business Education offerings.

### Careers that can be followed with a major in Business are:

Accountant	Sales Support Personnel	Computer Hardware Technician
Cost Accountant	Real Estate Agent	Computer Operator
Auditor	Retail Merchandising	Computer Programmer/Systems Tester
Tax Accountant	Broker	Teacher/CWE Coordinator
Systems Analyst	Small Business Owner	Corporate Financial Manager
Management Services Advisor	Business Management	Banker
CPA	Entrepreneurship	Insurance Agent
Business Education/Teacher	Administrative Assistant	Investment/Financial Agent
Advertising	Clerk	Financial Services/Sales Representative
Marketing Manager	Loan Support Processor	Human Resources Manager
Marketing Researcher	Operations Specialist	Small Business Entrepreneur
International Marketing	Receptionist	International Business Manager
Information Systems Manager	Bank Associate	Productivity Manager
Customer Service Representative	Client Server Technician	

### ALL COURSES IN THE BUSINESS & FINANCE AREA QUALIFY AS STEM CREDIT.

1621  
Accounting I  
(STEM)

Accounting I is a hands-on course that introduces the concepts and procedures of keeping financial records for a business. Students will use a computerized accounting program, Excel spreadsheets for financial statements, and desktop calculators throughout the course. This course is sequential in nature, so students will continuously build on prior learning.

During this course, students will be provided with numerous opportunities to foster study and organization skills, time management, teamwork, good work ethics and acceptable workplace practices. All students are required to use a 3-ring binder to hold their work and notes for use as an accounting reference book.

This course is invaluable for any student planning to own a business or major in post-secondary business. This course should be followed by Accounting II.

**Prerequisite: Successful completion of Algebra I or concurrently enrolled.**

1623  
Accounting II  
(STEM)

Advanced financial recordkeeping for corporations will be the focus. Students will continue using a computerized accounting program and the advanced features of Excel to produce and analyze financial documents. An accounting simulation will

reflect the type of work done in entry-level corporate accounting.

This course is designed for those students who intend to concentrate on a career in the business field.

**Suggested prerequisite: Grade of C- in Accounting I.**

Open to grades 10-12.

1604  
Personal Finance  
(STEM)

Financial Planning involves setting goals, developing a plan to achieve them, and putting a plan into action. This course will help you begin taking steps toward managing your money wisely. The topics covered in this half semester course include: making smart decisions, income and taxes, financial institutions and services, savings, credit, investing and estate planning, insurance, housing, and transportation.

(.5 **STEM** credit – meets for one semester)

1606  
Marketing  
(STEM)

Students will explore the components of marketing as it relates to businesses and consumers. Areas of study include principles of marketing, product development and planning, distribution and pricing, marketing research, and advertising/promotion. Throughout the semester students will work on activities and projects to reinforce concepts.

(.5 **STEM** credit – meets for one semester)

## **CAPSTONE - SENIOR PROJECT**

The Capstone Project fulfills the state-mandated mastery credit, effective with the Class of 2023. While not an actual course built into a student's schedule, the Capstone Project will be an ongoing, semi-independent effort over much of junior and senior year. The Capstone Project allows students to leverage their personal interests and service completed both in and outside of school to demonstrate their mastery of the four academic and two civic and social tenets of the Vision of the Graduate.

The Capstone Project is supported in Advisory 11, English 11, U.S. History, and later Advisory 12 and English 12.

Successful completion includes:

- Active learning, service, fieldwork, or task completion
- Maintenance of a progress journal
- Completion of academic research
- Composition of a 3-5 page, typed paper in MLA format, presenting the findings and conclusions of the aforementioned academic research
- Submission of six reflections - one for each of the six tenets in the Vision of the Graduate
- Development and delivery of an oral presentation, including visual aids

**All students must complete the Capstone Project in order to be eligible for graduation from Ledyard High School. This is a stipulation of Substitute Senate Bill No. 1026, Public Act No. 17-42.**

(1.0 credit)



## **CREDIT RECOVERY PROGRAM**

The Credit Recovery Program is an afterschool fee-based online option for students who need to recover credits. Recommended students and their parents will meet with the school counselor to select courses and submit an application.

# ENGLISH

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in English offerings.

## What can I do with a career in English?

### Advertising

Creative Writer, Account Services,  
Media Research

### Technical Writing

Writing and Editing

### Banking

Credit Lending, Systems, Operations,  
Trusts

### Radio and Television

News, Programming/Production,  
Sales and Accounting

### Book, Magazine and Newspaper Publishing

Editorial, Production, Sales/Marketing, Public Relations,  
Production, Circulation, Publicity, Textbooks, Editing,  
Reporting

### Education

Teaching

### Law

Corporate and/or Government Practice

### Paralegal Profession

Information Gathering-Processing Management

## ALL COURSES IN THE ENGLISH AREA QUALIFY AS HUMANITIES CREDIT.

Level I courses (1111/1121/1131/1141/1145/1146) are differentiated primarily by the degree and depth of analytical skills required of students, particularly in their reading and writing, and by the intensity and pace of the curriculum. Students are expected to have a better overall mastery of technical skills, self-motivation and the capacity for independent work, and a willingness to contribute positively to their own learning and that of their classmates.

Since the stringent requirements of this level of English demand high ability and motivation, proven performance, and a willingness to be an active participant in all class activities, admission to these courses requires a recommendation from the previous English teacher.

1111/1112/1113  
English 9  
(HUMANITIES)

English 9 is a standards-based curriculum aligned with the Connecticut Core Standards. The emphasis is on making meaning of both literary and informational text. Students will be exposed to a broad spectrum of readings produced by both American and foreign-born authors. Attention will be given to the elements of fiction, the structure and purpose of informative text, and the development of literary themes. Students will have the opportunity to write for a variety of purposes, with emphasis on narrative, informational, and argumentative forms. Students will present the synthesis of their own research using contemporary programs and technology. Students will be expected to work closely with text, regularly citing specific quotations and passages in support of their own interpretation or analysis in discussion, presentation, and writing. Grammar and vocabulary instruction will be ongoing and unit-based.

1121/1122/1123  
English 10  
(HUMANITIES)

English 10 is a standards-based curriculum aligned with the Connecticut Core Standards. The course builds upon the foundational reading, writing, speaking and listening, and language skills introduced in English 9. Reading continues to emphasize both literary and informational text, and students will be exposed to a broad spectrum of genres and styles produced by both American and foreign-born authors. Attention will be given to the elements of fiction, the structure and purpose of informative text, the development of literary themes, and the analysis of author's craft and textual structure. Opportunities for narrative and informational forms of writing remain, and the craft of argumentative writing will be further refined as students write for a variety of purposes, including for the presentation of findings through research. In discussion, presentation, and writing, students will be expected to work closely with text, regularly citing specific quotations and passages in support of their own interpretation or analysis. Grammar and vocabulary instruction will be ongoing and unit-based.

1131/1132/1133  
English 11  
(HUMANITIES)

English 11 is a standards-based curriculum aligned with the Connecticut Core Standards. The course assumes mastery of the foundational reading, writing, speaking and listening, and language skills introduced in English 9 and 10 and introduces more rigorous standards in those areas. Reading continues to emphasize both literary and informational text, and students will be exposed to a broad spectrum of genres and styles produced by both American and foreign-born authors. A particular emphasis shall be given to American literature and seminal American historical documents. Attention will be given to parallel development of multiple literary themes, characterization, and the analysis of author's craft and textual structure in both fiction and non-fiction. Though opportunities for narrative and informational forms of writing remain, the focus shifts in earnest during English 11 to the craft of argumentative writing. Students' ability to work closely with text, regularly citing specific quotations and passages in support of their own interpretation or analysis in discussion, presentation, and writing will be paramount. Grammar and vocabulary instruction will be ongoing and unit-based.

1141/1142/1143  
English 12  
(HUMANITIES)

English 12 is a standards-based curriculum aligned with the Connecticut Core Standards. The course emphasizes college and career readiness in the strands of reading, writing, speaking and listening, and language. Reading continues to emphasize both literary and informational texts, and students will be exposed to a broad spectrum of genres and styles produced by both American and foreign-born authors. Attention will be given to parallel development of multiple literary themes,

characterization, and the analysis of author's craft and textual structure in both fiction and non-fiction. Students' ability to work closely with text, regularly citing specific quotations and passages in support of their own interpretation or analysis in discussion, presentation, and writing will be paramount. Grammar and vocabulary instruction will be ongoing and unit-based.

1145  
Advanced Placement  
English Language  
and Composition  
(HUMANITIES)

The course is a junior seminar in academic writing and shared inquiry through interdisciplinary nonfiction readings, graphics and visual images. Instruction will emphasize rhetorical strategies, close reading, and analyzing arguments, as well as preparation for the multiple-choice questions and free-response essays on the AP Language and Composition exam. Utilizing a process-oriented approach to composition, students will draft and revise analytical and argumentative essays on a variety of subjects related to topical class readings (e.g. community, education, the environment, education, language, popular culture). Revision will be guided through peer and teacher feedback with focus on structuring arguments, organizing support, vocabulary-building, mastery of a variety of sentence structures, establishing and maintaining voice, controlling tone, and citing sources in MLA format.

Students will have the option of taking the AP English Language and Composition exam in May for the opportunity to earn college credit.

**Prerequisite: Grade of B- or higher in English 1121 or a waiver, along with strong grammar, usage and mechanics skills.**

This course fulfills the requirement for English 11 but does not guarantee college credit.

1146  
Advanced Placement  
English Literature  
and Composition  
(HUMANITIES)

The course is a senior seminar in academic writing and shared inquiry. This course prepares students to take the AP English Literature and Composition exam. Instruction will emphasize preparation for the multiple-choice questions and free-response essays on the AP Literature and Composition exam. Throughout the year, students will read, write, and talk about novels, short stories, and poems. Utilizing a process-oriented approach to composition, students will draft and revise analytical essays on a variety of class readings. Revision will be guided through peer and teacher feedback with focus on structuring arguments, organizing support, vocabulary-building, mastery of a variety of sentence structures, establishing and maintaining voice, controlling tone, and citing sources in MLA format. Students will have the option of taking the AP

English Literature and Composition exam in May for the opportunity to earn college credit.

This course fulfills the requirement for English 12 but does not guarantee college credit.

**Prerequisite: Grade of B- or higher in English 1131 or 1145 or a waiver, along with strong grammar, usage and mechanics skills.**

This course fulfills the requirement for English 12 but does not guarantee college credit.

1150  
Journalistic  
Publications I  
(HUMANITIES)

The Journalism I course meets alternate days for the entire year and offers both practical experience in publishing and studies in media issues. It is a production class in which students conduct research and interviews, are introduced to journalistic writing skills, apply the basic principles of photography, solicit and design advertising, acquire web design skills, and design yearbook pages with desktop publishing software. With the leadership of editors in Journalism II, the class publishes the school's online news magazine, The Colonel and creates the Horizons yearbook. In addition to acquiring the basic skills used in publishing, students confront media issues such as press freedoms and responsibilities.

Open to grades 10-12.

1155  
Journalistic  
Publications II  
(HUMANITIES)

Journalism II is an advanced writing and editing course open only to students who have successfully completed Journalism I. Students taking Journalism II must serve as editors as appointed by the instructor and are responsible to manage all phases of publication of the online news magazine, The Colonel and the Horizons yearbook. Journalism II offers an opportunity to build written style, develop editing skills, and acquire management experience. The class meets concurrently with Journalism I.

**Prerequisite: Successful completion of Journalistic Publications I.**

(This course can be taken for two credits.)

1160  
Creative Writing  
(HUMANITIES)

The emphasis in this course is on the development of each student's personal writing style through directed reading and writing assignments in a variety of fictional, narrative, and poetic styles. Students will become well versed in theoretical and stylistic aspects of various modes of writing. Students will complete frequent, substantial reading and writing assignments

and will collaborate daily to revise and improve their work.

(.5 credit – meets for one semester)

1160F  
Creative Writing  
—Prose  
(HUMANITIES)

The focus of this course is the continuing development of the student's prose writing. Students will primarily write fiction (short stories) as well as participate in exercises designed to enhance their skill as writers.

**Prerequisite: Minimum grade of C in English 9.**

Open to grades 10-12.

(.5 credit – meets for one semester)

1160V  
Creative Writing  
—Poetry  
(HUMANITIES)

The focus of this course is the continued development of the student's personal writing in the genre of poetry. Students will compose their own verse as well as read other poets and study varied poetic forms.

Open to grades 10-12.

(.5 credit – meets for one semester)

1161  
Drama  
(HUMANITIES)

The aims of the course are to familiarize students with the process of creating dramatic art and to prepare the student actor for the stage. Students concentrate on developing skills in vocal expression and projection, stage movement, improvisation, and character development.

(.5 credit – meets for one semester)

1162  
Public Speaking  
(HUMANITIES)

The primary concern of this course will be to assist students in developing their speaking abilities for both formal and informal occasions. Students will learn how to prepare and present a variety of types of speeches, including informative and persuasive. In addition, students will engage in numerous activities that will increase their ability in oral communication.

(.5 credit – meets for one semester)

1180  
Shakespeare on Film  
(HUMANITIES)

In this survey course of film adaptations of the plays of William Shakespeare, students will consider the various traditional and modern approaches to the works of this revered author through modern cinematic media. Students will focus on the ways in which classic texts are interpreted and altered according to the social, political and cultural influences of the time-period in which films are produced. The course will revolve around discussion, debate and presentation of

individual and collective opinions on those adaptations. The course will allow students to examine film adaptations of the plays spanning the past five decades and will require them to evaluate those adaptations through small and whole-group discussion, project-based and multimedia film reviews, and recreation of significant scenes.

Open to grades 10-12

(.5 credit – meets for one semester)

## **ELL SERVICES**

English Language Learner services and/or accommodations are offered to students whose native language is other than English. The goal of this service is to develop and improve overall language to be proficient. The level of support will be differentiated based on the results of assessment data and the LAS (Language Assessment System) which is required every year until the student meets the exit criteria.



## FAMILY & CONSUMER SCIENCE

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Family and Consumer Science offerings.

### Careers that can be followed with a major in FCS are:

Baker/Pastry Chef	Restaurant Owner	Child Care Worker
Executive Chef	Dietician	Early Childhood Educator
Food Preparation Worker	Teacher	Parent Educator
Line Cook	Nutritionist	Teacher's Aide
Maitre d'	Food Services Manager	Child Psychologist
Banquet Services/Caterer	Events Manager/Planner	Speech/Language Pathologist
Convention/Service Manager	Social Worker	Interior Designer
Textile Specialist	Color Specialist	Fashion Designer
Fashion Promotion	Apparel Production	Fashion Services
Fashion Merchandising		

### ALL COURSES IN THE FAMILY & CONSUMER SCIENCE AREA QUALIFY AS STEM CREDIT.

1826  
Culinary Arts I  
(STEM)

Cooking is something everyone is capable of doing and knowing how to use the resources, tools and food available to you will help you become a successful cook. This course will teach you safety and sanitation and how to read and prepare a recipe. The following units will be covered- Quick Breads, Healthy Snack, Pies & Pastry, Fruits, Vegetables, Meats, Grains, Eggs and Casseroles.

(.5 credit) meets for one semester.

1827  
Culinary Arts II  
(STEM)

This course will build off the cooking skills learned in Culinary I and explore more advanced units such as specialty desserts, soups, sauces, homemade pasta, and international foods, appetizers, and sandwiches. A food service project will also be completed in this course.

#### **Prerequisite: Successful completion of Culinary I**

Open to students grade 10-12

(.5 credit) meets for one semester.

1832  
Sewing and Fashion  
(STEM)

This course is offered to students with an interest in textiles, fashion and sewing. Students will learn about elements of fashion design, types of fibers and fabrics, and clothing construction techniques. It is designed for someone who has never sewn before or someone with very little sewing experience. Normally, students will provide material for

personal projects. Students may retake this class for credit to pursue more advanced project work.

(.5 credit) meets for one semester.

1840  
Housing and  
Interior Design  
(STEM)

Housing and Interior Design is a course where students become acquainted with the processes of choosing, designing, and decorating a home. Students will be able to appreciate the variety of styles of homes in our town. In class students will learn the Elements & Principles of Design and implement them by using a floor plan and decorate the space—from walls, lighting and floorings to furniture and accessories.

(.5 credit) meets for one semester.

1841  
Understanding Self  
& Relationships  
(STEM)

This course provides an in-depth study of human development and relationships throughout the life-cycle. The goal of this course is for students to develop positive attitudes about themselves, their sexuality, and relationships with others, and make responsible decisions for their own sexual behavior. Topics include self-concept, personality, communication, healthy versus unhealthy dating relationships, sexuality and decision-making, values, goals and problem solving.

Open to grades 11-12.

1844  
Child Development  
(STEM)

This course traces the development of children from conception through the preschool years. Students are required to care for an electronic baby before, during, and after school for several days. Students receive general preparation for parenthood as well as vocational childcare experience. The Colonel preschool is run by the students in this course.

Open to grades 11-12.

## HEALTH

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Health/Wellness offerings.

### **What can I do with a major in Health/Wellness Education?**

Wellness Education Teacher/Administrator	Personal Trainer
Physical Education Teacher/Administrator	Fitness Instructor
Public Health Educator/Administrator	Recreation Leader
Athletic Administrator	Sports Medicine
Athletic Coach	Physical Therapist
Athletic Trainer	

1810  
Health

This course will focus on the importance of good health habits and attitudes as they relate to growth and development of the whole person. Mental health, nutrition, sexuality, and drugs and alcohol will be some of the topics covered. Students will become aware of their responsibility for their own bodies and of their responsibility to others regarding health issues. An interdisciplinary approach will be used. This course follows the State of Connecticut Department of Education Frameworks for Health Education.

(.5 credits – meets for one semester.)

Required for all tenth graders. This course must be passed in order to meet graduation requirements.

1812  
Health 12

This course will focus on the importance of good health habits and attitudes as they relate to growth and development of the whole person. CPR/First Aid, adult nutrition, sexual violence, distracted driving and drugs and alcohol abuse will be some of the topics covered. Students will become aware of their responsibility for their own bodies and of their responsibility to others regarding health issues. An interdisciplinary approach will be used. This course follows the State of Connecticut Department of Education Frameworks for Health Education.

(.5 credits—meets for one semester.)

Required for all twelfth graders. This course must be passed in order to meet graduation requirements.

## INDEPENDENT STUDY

Before the semester begins, a student wishing to pursue an independent study must submit a proposal to the Instructional Leader (I.L.) of the appropriate department. The proposal must include:

- Objective
- Action plan with timeline
- Criteria for successful completion
- Resources needed
- Credit proposed
- Teacher's consent
- Instructional Leader approval

If approved, the proposal goes to the Director of School Counseling and Guidance for implementation and administrative details.

The student will then submit to School Counseling and Guidance Department the **Independent Study Form** (obtained from school counselor) signed by teacher, student, parent, and the I.L.

- The student is responsible for independent study.
- The student must keep a daily journal
- The student will meet weekly with the cooperating teacher. Contact hours will be determined by the teacher.
- Number of hours will be equivalent to a .5 or 1.00 credit course. Academic rigor will be equivalent to a similar course.
- Specific criteria for monitoring/assessing progress will be determined by cooperating teacher and student.
- A culminating project or paper must be completed in order to pass.
- A timeline will be determined.

The teacher will submit a monthly report of the student's progress to the I.L. and progress report to the student.

**Graded on pass/not pass basis.**

Open to grades 11 and 12.

(.5 or 1.00 credit)

# MATHEMATICS

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Math offerings.

## What can I do with a major in Mathematics?

### Architecture

Surveyor, Landscape Architect, Landscape Design, Fashion Designer

### Art & Design

Interior Designer

### Business/Financial Operations

Accountant, Banking, Budget Analyst, Insurance Public Accounting, Securities

### Computer/Mathematical

Actuarial Analyst, Actuary, Applied Mathematics, Computer Consulting, Computer Science, Statistician

### Construction/Trades

Carpentry, Construction, Machinist, Masonry Plumbing, Printing, Welding

### Drafting

### Education

Teacher

### Engineering

Aeronautics, Biomedical Engineer, Chemical Engineer, Civil Engineer, Computer Applications Engineer, Electrical Engineer, Industrial Engineer, Manufacturing Engineer, Mechanical Engineer, Nuclear Engineer, Petroleum Engineer, Software/Hardware Engineer, Structural Engineer

### Hospitality

Culinary Arts, Food Management

### Installation/Maintenance/Repair

Automotive Service Technician

### Management

Financial Manager, Product Manager, Quality Control Manager

### Marketing

Research Analyst

### Media/Communications

Public Relations

### Medicine

Psychologist

### Military

### Sales

Retail Buying, Retail Store Manager

### Science

Astronomer, Geologist, Geophysicist, Meteorologist, Physicist, Seismologist

### Social Science

Agricultural Economist, Economist

## ALL COURSES IN THE MATHEMATICS AREA QUALIFY AS STEM CREDIT.

### Integrated Mathematics

The Integrated Mathematics program is a three-year series of courses that is designed to encompass the fundamentals of algebra I, geometry, introductory statistics, and algebra 2 preview topics. With successful completion of this program, the student will be prepared to enroll in course 1332 or 1333 Algebra II.

1371  
Integrated Math I  
(STEM)

This is the first course in a three-course series that integrates CT Core State Standards from Algebra 1 and Geometry.

Algebra topics include: write and solve linear equations and inequalities to model real life scenarios, functions (in general) and linear functions, and write and solve systems of linear equations by graphing and substitution.

Geometry topics include: the language of geometry, properties involving parallel and perpendicular lines, polygons (include

perimeter, circle circumference and area), Solids (volume and surface area) , relationships in triangles, and quadrilaterals.

Graphing calculators are provided for classroom instruction.

1372  
Integrated Math II  
(STEM)

This is the second course of the three-course Integrated Math series. CT Core State Standards for Algebra I, Geometry, and Statistics are integrated throughout the course.

Algebra topics include: writing and solving linear equations and inequalities to model real-life scenarios, functions (linear, absolute value, and piecewise), writing and solving systems of linear equations to model real-life scenarios (substitution and elimination methods), solving systems of linear inequalities by graphing, and laws of exponents.

Geometry topics include: postulates and theorems involving parallel and perpendicular lines, inequalities in triangles and right triangle theorems with trigonometry, and transformations (translations, rotations, reflections, compositions).

Introductory Statistics topics include: measures of center and spread, data displays, normal model, theoretical probability, and contingency tables.

Problem-solving applications are integrated throughout.

Graphing calculators are provided for classroom instruction.

1373  
Integrated Math III  
(STEM)

This is the third course of the three-course Integrated Math series. It is designed as a transition course to a traditional Algebra II course. CT Core State Standards for Algebra I, Geometry and Algebra II are integrated throughout the course.

Algebra topics include: writing and solving equations and inequalities to solve problems, functions (linear, absolute value, square root, cube root, piecewise), laws of exponents, exponential functions (rates of change, graph, model, transform, interpret), and quadratic functions (factor, model and solve).

Real-life applications and problem-solving skills are integrated throughout the course.

Graphing calculators are provided for classroom instruction.

1311/1312  
Algebra I  
(STEM)

This course curriculum is an adoption of an Algebra 1 model curriculum, which incorporates CT Core State Standards organized in eight units of study: Patterns, Linear Equations

and Inequalities, Functions (linear, absolute value, square root, cube root, piecewise), Linear Functions, Scatter Plots and Trend Lines, Systems of Linear Equations and Inequalities, Intro to Exponential Functions, and Quadratic Functions and Equations. Real-life applications and problem-solving skills are integrated throughout the course.

Graphing calculators are provided for classroom instruction.

1321/1322  
Geometry  
(STEM)

This course incorporates CT Core Standards from Geometry, Algebra, and Statistics. The blend of topics from geometry provide ample opportunities for students to practice modeling with algebraic equations and working with figures on the coordinate plane. Units of study including Ratio/Proportion, Trigonometry and Introductory Statistics also provide students with fundamental skills necessary for cross-discipline problem solving.

Geometry topics include: Foundational elements of Euclidean geometry, triangles, transformations, circles, and volume.

Introductory Statistics topics include: measures of center and spread, data displays, normal model, theoretical probability, and contingency tables.

Real-life applications and problem-solving skills are integrated throughout the course.

1331/1332/1333  
Algebra II  
(STEM)

This course is adapted from a model Algebra II curriculum, which incorporates CT Core State Standards in the following six units of study: Function Families, Inverse Functions, Polynomial Functions, Rational expressions and Functions, Trigonometric Functions, Exponential and Logarithmic Functions. Real-life applications and problem-solving skills are integrated throughout the course.

Graphing calculators are provided for classroom instruction.

1362  
Algebra III  
(STEM)

Algebra 3 is a course recommended for college-bound juniors and seniors, who will be taking a post-secondary, entry level math course. The curriculum incorporates standards from the CT Core and units of study are designed to be rich in application. Topics of study include: Matrices and Systems, Polynomials and Inverses, Exponential and Logarithmic Functions, Conics, Rational Expressions and Functions, Introductory Statistics, and Trigonometric Functions

Graphing calculators are provided for classroom instruction.

1341/1342 Pre-Calculus (STEM)	<p>This course is a continuation of Algebra II. The course curriculum begins with solving and graphing polynomial, rational, and exponential and logarithmic functions. The second portion of the course is devoted to topics in trigonometry. This includes the study of right triangles, oblique triangles, the law of sines and cosines, graphing trigonometric functions, and solving related equations. Other level 1 topics may include conics and sequences &amp; series. Real-life applications and problem-solving skills are integrated throughout the course.</p> <p>Graphing calculators are provided for classroom instruction.</p>
1347 Calculus 1 (STEM)	<p>This course is equivalent to a college level introductory calculus course. The curriculum includes many of the same topics as those listed for Advanced Placement AB Calculus. However, the instructional topic depth and pacing for Calculus 1 varies from AP Calculus.</p> <p>Graphing calculators are provided for classroom instruction.</p>
1345 Advanced Placement Calculus AB (STEM)	<p>This course is a study of the calculus that will be equivalent to one semester of study on the college level. Topics include the following: limits, continuity, derivatives, applications of derivatives, integrals, and applications of integrals including slope fields.</p> <p>Classroom activity will involve use of the TI-89 graphing calculator.</p> <p>Students are expected to take the AP Calculus AB Exam in May.</p>
1350 Statistics (STEM)	<p>This course is designed to teach students to become better consumers of information and prepare them for post-secondary courses in statistics. The course is a study of descriptive statistics (how to properly interpret and represent categorical and quantitative data), sampling and experimentation (principles of experimentation design and random selection), anticipating patterns using the rules of probability (includes the normal distribution curve) and using statistical inference to justify conclusions. Graphing calculators will be used extensively throughout the course.</p> <p>Open to grades 11-12.</p>
1354 AP Statistics (STEM)	<p>This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:</p>



Exploring Data, Sampling and Experimentation, Anticipating Patterns, and Statistical Inference. Students who successfully complete this course and AP exam may receive credit, advanced placement or both for a one-semester introductory college statistics course. Graphing calculators are provided for classroom instruction and will be used extensively throughout the course.

Students are expected to take the AP Statistics Exam in May.

Open to grades 11-12.

1369  
Consumer Math  
(STEM)

This course is open to students from Integrated Math II or any other traditional college bound mathematics course. The primary focus is on consumer mathematics as it pertains to personal finance. The course is designed to empower students to make sound financial decisions. The secondary focus is on arithmetic, number sense, and geometry as it pertains to linear, area, and volume measurements.

Open to grades 11-12.

## MATH COURSE SEQUENCE OPTIONS

9	10	11	12
Integrated Math I - 1371	Integrated Math II - 1372	Integrated Math III - 1373	Algebra II - 1332 or 1333 <b>or</b> Statistics - 1350 <b>or</b> Consumer Math - 1369
Algebra I - 1311/1312	Geometry - 1321/1322	Algebra II - 1331/1332 <b>or</b> Integrated Math III - 1373	PreCalculus - 1341/1342 <b>or</b> Algebra III - 1362 <b>or</b> Statistics - 1350 <b>or</b> AP Statistics - 1354
Geometry - 1322	Algebra II - 1332	PreCalculus - 1342	Calculus I - 1347 <b>or</b> Statistics - 1350 <b>or</b> AP Statistics - 1354
Honors Geometry - 1321	Honors Algebra II - 1331	Honors PreCalculus - 1341	AP Calculus AB - 1345 <b>or</b> AP Statistics - 1354

# MUSIC

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Music offerings.

## What can I do with a major in Music?

Accompanist	Critic	Musician
Arranger	Entertainer	Program Director
Audio Engineer/Mixer, Operator	Instrument Designer	Promoter
Band/Symphony Orchestra Conductor	Librettist	Singer, Dancer
Business Manager	Music Store Manager	Sound Effects Technician
Choral Director	Music Therapist	Studio Engineer
Choreographer	Music/Vocal Teacher	Television Music Director
Composer	Musical Theater Director	Theatrical Variety Agent

## ALL COURSES IN THE MUSIC AREA QUALIFY AS HUMANITIES CREDIT.

1920  
Chamber Choir  
(HUMANITIES)

Chamber Choir is the most advanced choir at Ledyard High School. This ensemble is open to 20-24 students of all voice parts in grades 10-12 who have completed a successful Choral Placement Hearing. This ensemble requires high-level skills in vocal production, music literacy, and performance practice. This ensemble performs challenging music in a variety of styles. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School. Additional performances will also be required.

1921  
Music Appreciation  
(HUMANITIES)

This is a course designed to help students appreciate music by learning how music is created, how music has developed over the course of history, and the role music plays in culture. Through listening, discussing, and writing about music, students will gain a deeper understanding of this art form. The class will feature many different styles of music including American popular, American jazz, European art music.

(.5 credit – meets for one semester)

1922  
Music Theory I  
(HUMANITIES)

This course is an introduction to the fundamentals of music. Scale and chord construction are taught. Work progresses to sight-singing, elementary harmony, and analysis.

**Prerequisite: Must be enrolled in an LHS Music performing ensemble or have written approval of instructor.**

(.5 credit – meets for one semester)

1925  
Music Production  
(HUMANITIES)

In this course, students will learn the basics of technology based music and sound production. Working hands-on with DAW (Digital Audio Workstation) software and other

equipment, students will complete projects exploring concepts like audio manipulation & editing, medleys & megamixes, recording using virtual and/or acoustic instruments, and music or advertising. Prior musical study/training is not required to be successful in this course.

(.5 credit – meets for one semester)

1927  
Beginning Keyboard  
(HUMANITIES)

Portable electronic keyboards are available for student use. Students must bring working headphones or earbuds to each class. Note reading and basic keyboard technique will be covered. Students will progress through chords, scales, songs, and more advanced pieces.

(.5 credit – meets for one semester)

1928  
Guitar I  
(HUMANITIES)

This class is for the beginning guitar student. Although it is advisable for students to have their own guitars at each class, some guitars are available for student use. The class will focus on basic guitar techniques and progress through chords, scales, and songs.

(.5 credit – meets for one semester)

1929  
Advanced Guitar  
(HUMANITIES)

This class is a more advanced course for students who have completed the basic guitar course. Although it is advisable for students to have their own guitars at each class, some guitars are available for student use. Only standard music notation will be used. Students will be required to read music at each lesson. Jazz voicings will be introduced.

**Prerequisite: Guitar I or written approval of instructor.**

(.5 credit – meets for one semester)

1932  
Concert Choir  
(HUMANITIES)

Concert Choir is an intermediate-level choir open to students of all voice parts in grades 10-12 who have completed a successful Choral Placement Hearing. Students will continue to refine skills in vocal production, music literacy, and performance practice. This ensemble performs music in a variety of styles. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School. Additional performances may also be required.

1935  
Jazz Band  
(HUMANITIES)

Entrance into the Jazz Band is by audition and/or invitation only and is the most select instrumental ensemble at Ledyard High School. Higher levels of musicality and instrumental ability are expected for inclusion in this performing class. This course includes the performance and study of different styles of

jazz in a large ensemble setting. Emphasis will be placed on not just performance technique, but also rudimentary improvisational skills, musicianship, and a sense of personal accountability. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School. Additional performances may also be required.

**Prerequisite: Previous playing experience on a woodwind or brass instrument, piano, bass, guitar, or drums in addition to the ability to read music fluently.**

1934  
Symphonic Band  
(HUMANITIES)

Musicianship, performance skills and music theory basics are taught using a variety of music. The emphasis of Symphonic Band is band literature; strong fundamental music skills are required. All members of Symphonic Band are required to participate in Marching Band. Marching Band begins with a week of rehearsals in late August. It is possible to participate in a fall sport and still participate in Symphonic Band. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School. Additional performances may also be required.

1942  
Colonel Singers  
(HUMANITIES)

Colonel Singers is an entry-level choir open to tenors and basses in grades 9-12 with or without a Choral Placement Hearing. Students will develop basic skills in vocal production, music literacy, and performance practice. This ensemble performs music in a variety of styles. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School.

1943  
Chorale  
(HUMANITIES)

Chorale is an entry-level choir open to sopranos and altos in grades 9-12 with or without a Choral Placement Hearing. Students will develop basic skills in vocal production, music literacy, and performance practice. This ensemble performs music in a variety of styles. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School.

1943S  
Select Singers  
(HUMANITIES)

Select Singers is an advanced-level choir open to sopranos and altos in grades 10-12 who have completed a successful Choral Placement Hearing and are not enrolled in Chamber Choir. Students will continue to refine skills in vocal production, music literacy, and performance practice. This ensemble performs challenging music in a variety of styles. Enrollment in this course requires participation in all mainstage concerts at Ledyard High School. Additional performances may also be required.

## ONLINE COURSEWORK

Students have the option to take online courses for credit. Students should be independent and self-motivated as all course work is completed online at the student's own pace and likely outside of school hours. Families will be responsible for the cost of these courses.

Interested students should see their counselor to discuss details of credit and weighting and obtain an application. All applications must be approved by the LHS principal.

For more information see the following Board of Education policy:

[http://ledyard.net/UserFiles/Servers/Server\\_111100/File/6146%20Graduation%20Requirements.pdf](http://ledyard.net/UserFiles/Servers/Server_111100/File/6146%20Graduation%20Requirements.pdf)

**\*Important Note:** At the time of this publication, most online program courses are not accepted by the NCAA as high school core courses needed for Division I and II eligibility.

# PHYSICAL EDUCATION

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Physical Education/Wellness Education offerings.

## What can I do with a major in Physical Education/Wellness Education?

Wellness Education Teacher/Administrator	Fitness and Yoga Instructor
Physical Education Teacher/Administrator	Recreation Leader
Public Health Educator/Administrator	Sports Medicine
Athletic Administrator	Physical Therapist
Athletic Coach	Occupational Therapy
Athletic Trainer	Higher Education Professor
Personal Trainer	Sports Management Careers

1010  
Physical Education

The minimum graduation requirement is 1.0 credit in Physical Education. All students must take Physical Education in grades 9 and 10. All courses meet alternate days for one semester.

The Physical Education program includes instruction and competition and strives to improve students' self-esteem, interpersonal relationships, and responsible behavior. Each student will have the opportunity to improve motor skills, knowledge, attitudes, appreciation of a variety of sports, and indoor/outdoor adventure activities.

Program objectives include the enhancement of skillful moving, increased mental alertness, promotion of active lifestyle habits, and the constructive use of leisure.

The basic program will incorporate a fitness-related component every class utilizing state of the art physical fitness center. The remainder of the period will focus on skill development, knowledge of individual and team sports, group explanation, and a culminating individual or group activity.

The following is the recommended course sequence:

Grade 9 fall=Grade 10 spring  
Grade 9 spring=Grade 10 fall

**Open to grades 9 and 10 to complete graduation requirements.**

(.5 credit – meets for one semester)

1030  
Advanced  
Physical Education

This elective program will provide the opportunity to further fitness development and allow the students to engage in selected individual and team sports.

Students may take physical education classes twice in an academic year.

(.5 credit – meets for one semester)

Open to 11th and 12th grade students who have completed the requirement of the Basic Physical Education program.

1888  
Independent Study  
in Physical Education

Independent study is available for a senior who has completed PE, one semester of Advanced PE, and one semester of Sport Psychology. This independent study is geared for students who are interested in pursuing a career in Physical Education or a related field.

Completing an Independent Study form, which is available in guidance, getting approval from a Physical Education Instructor and their Instructional Leader is required.

(.5 credit – meets for one semester)

1020  
Sport Psychology

Students are introduced to “mind, body, spirit” education. Students explore how the mind interacts, influences and determines outcomes during physical activity, game, and contest settings. Personality types, stress management, anchoring, player/coach relationships, expectations, game preparation, muscle memory, visualization, sport ethics, motivation, conflict resolution, flow, birth order, concentration, contest preparation, and team cohesion are some of the topics to be investigated—all through the lens of optimal performance.

(.5 credit – meets for one semester)

**ONE (1) CREDIT IN PHYSICAL EDUCATION IS REQUIRED FOR GRADUATION.**

## SCIENCE

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Science offerings.

### What can I do with a major in Science?

Aeronautical Scientist	Forester	Pathologist
Aerospace Engineer	Geologist	Pharmacist
Agricultural Engineer	Geophysicist	Physician
Anesthesiologist	Licensed Practical Nurse	Physical Therapist
Bacteriologist	Registered Nurse	Physicist
Biochemist	Advanced Practical Nurse	Podiatrist
Chemical Engineer	Manufacturing/Mechanical Engineer	Psychiatrist
Chemical Laboratory Technician	Marine Ecologist	Regulatory Affairs Specialist
Chemist	Mathematician	Respiratory Therapist
Civil, Electrical Engineer	Medical Laboratory Technician	Soil Conservationist
Dentist	Metallurgist	Surgeon
Ecologist	Meteorologist	Surveyor
Electrical Engineer	Nuclear Engineer	Teacher
Environmental Control Officer	Nutritionist	Technicians
Food & Drug Inspector	Oceanographer	Veterinarian
Forensic Scientist		

### ALL COURSES IN THE SCIENCE AREA QUALIFY AS STEM CREDIT.

1400  
Earth Science  
(STEM)

Earth Science focuses on four areas of study. Students learn about celestial objects, interacting phenomena beyond the planet's atmosphere and the history of the universe. Students work to understand atmospheric forces and processes and how the atmosphere changes or produces weather. Students learn about the water cycle and how this compound shapes the landscape while moving energy and matter around the planet. Finally, students learn about the materials which make up the Earth and the planet's interior processes, and how this contributes to recycling or producing matter along with identifying major mineral classes.

(1 credit)

Open to grades 11-12.

1421/1422/1423  
Biology  
(STEM)

This course addresses four major themes. The first is From Molecules to Organisms: Structures and Processes, which addresses how individual organisms are configured and how these structures function to support life. The second is Ecosystems: Interactions, Energy, and Dynamics, which explores organisms' interactions with each other and their physical environment. The third is Heredity: Inheritance and Variation of Traits across generations, which focuses on the flow of genetic information between generations. The fourth is



Biological Evolution: Unity and Diversity, which explores changes in the traits of populations of organisms over time and the factors that account for species' unity and diversity alike.

1421 and 1422 will prepare the motivated student for Advanced Placement Biology.

Required of all ninth graders. This course must be passed in order to meet graduation requirements.

1425  
Advanced Placement  
Biology  
(STEM)

The Advanced Placement Biology course is designed to be the equivalent of two 4-credit college introductory biology courses usually taken by biology majors during the first year (8 credits in total). The two main goals of AP Biology are to help students to develop a conceptual framework for modern biology and an appreciation of science as a process. Four big ideas (The Process of Evolution Drives the Diversity & Unity of Life , Biological Systems Utilize Free Energy & Molecular Building Blocks to Grow, Reproduce & Maintain Dynamic Homeostasis, Living Systems Store, Retrieve, Transmit & Respond to Information Essential to Life Processes, Biological Systems Interact, and these Systems and their Interactions Possess Complex Properties) guide the student through AP Biology. Laboratory activities are at a higher level than regular biology labs and are geared toward providing students with advanced laboratory skills. Students do a minimum of 8 inquiry-based labs as part of this course.

There are required summer reading and writing assignments. Students who sign up for AP Biology during the summer or at the beginning of the school year can make up these assignments at that time.

Students are expected to take the AP Biology Exam in May.

**Prerequisite: Grade of B- in Biology (1421/1422) and C in Chemistry (1431/1432).**

(1.5 credits – meets one period all year plus an additional period first semester)

Participation and completion of this course does not guarantee college credit.

1431/1432/1434  
Chemistry  
(STEM)

This course addresses the study of chemistry through five units of study. The first is Properties of Matter at the Bulk Scale, which allows students to observe properties of matter that can be used to identify cause and effect relationships between bulk scale and atomic scale behaviors. This is followed by Elements

of the Periodic Table in which the the foundation for understanding how elements interact with one another is laid. The third unit, Bonding: Electrons, Forces and Energy, focuses on developing models to explain the various ways that particles bond to one another as well as the energetics of these bonding systems. The fourth unit, Chemical Reactions, focuses on the patterns that can be observed through investigations of key chemical reactions, and the last unit is an introduction to nuclear chemistry.

1431 and 1432 will prepare the student for Advanced Placement Chemistry or Biology.

**1431 Prerequisite: Successful completion of Algebra I.**

Required of all tenth graders. This course must be passed in order to meet graduation requirements.

1435  
Advanced Placement  
Chemistry  
(STEM)

Advanced Placement Chemistry is designed to be the equivalent of two 4-credit general chemistry courses usually taken during the first year of college (8 credits in total). Topics such as the structure and states of matter, reactions, chemical equilibrium, chemical kinetics, and the basic concepts of thermodynamics are presented. Descriptive chemistry including the chemistry of environmental and societal issues will also be presented. Laboratory activities are at a higher level than regular chemistry labs and are geared toward providing students with advanced laboratory skills.

There are required summer reading and problem assignments. Students who sign up for AP Chemistry during the summer or at the beginning of the school year can make up these assignments at that time.

Students are expected to take the AP Chemistry Exam in May.

**Prerequisite: Grade of B- in Chemistry (1431/1432).**

(1.5 credits – meets one period all year plus an additional period first semester)

Participation in and completion of this course does not guarantee college credit.

1443  
Exploring Physics  
(STEM)

Exploring Physics examines our physical environment. The focus of this course is on three topics: 1) Dynamics, or the study of forces and their effect on motion, 2) Energy, its various forms and the conservation of it, and 3) Waves and their applications in technologies for information transfer.

Students will have opportunities to employ critical thinking, problem solving, and research skills as they participate in a variety of lab experiences.

This unweighted course is designed to enhance students' understanding of the physical world and to prepare students for the NGSS test.

Successful completion of this course meets the junior physics graduation requirement.

(.5 credit – meets for one semester)

1442  
Physics  
(STEM)

Physics examines our physical environment. Areas explored in the classroom and the laboratories are kinematics, mechanics, wave motion and light, electricity and magnetism. Algebra and basic trigonometry skills are required for the course.

This 1.0 credit course is weighted level 2 and is designed to introduce basic physics concepts and prepare students for taking physics in college.

Students may only elect to take Physics (1442) or AP Physics 1 (1466), but not both. Both courses meet the prerequisite requirement for AP Physics 2.

**Prerequisites: Grade of C- in Algebra I or Integrated Math I & II.**

**Successful completion of this course meets the junior physics graduation requirement.**

1466  
Advanced Placement  
Physics 1  
(STEM)

Advanced Placement Physics 1 is a full year, one credit course, which is equivalent to a first-semester college course in algebra-based physics (4 college credits). The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, power; and mechanical waves and sound. It also introduces electric circuits and waves.

All students intending to major in engineering, science, or who plan on entering a medically related field, should take this course as a fundamental (often required) prerequisite for college.

Students may only elect to take Physics (1442) or AP Physics 1 (1466), but not both. Both courses meet the prerequisite requirement for AP Physics 2.

**Prerequisite: Grade of C in Geometry**

**No prior coursework in Physics is required.**

Students are expected to take the AP Physics Exam in May.

Participation in and completion of this course does not guarantee college credit.

**Successful completion of this course meets the junior physics graduation requirement.**

1467  
Advanced Placement  
Physics 2  
(STEM)

Advanced Placement Physics 2 is a full year, one credit course, which is equivalent to a second semester, algebra-based, college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics, electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning students will develop scientific critical thinking and reasoning skills.

Recommended for students considering majoring in engineering or any science.

**Prerequisite: Successful completion of Physics (1442) or AP Physics 1 is required, per the College Board.**

Students are expected to take the AP Physics Exam in May.

Participation in and completion of this course does not guarantee college credit.

Offered in academic years ending in an even number.

1450  
Bioethics  
(STEM)

Controversial biological issues are in the news on a daily basis. Learn about the issues and discuss or debate them as alternate points of view are considered. Cloning, environmental change, stem cell issues, legalizing drugs, women's rights, product testing on animals and humans are only a few of the issues discussed and debated.

**Prerequisite: Grade of C- in Biology.**

(.5 credit– meets for one semester)

Open to grades 11-12.

1452  
Human Biology  
(STEM)

This course is an introduction to human anatomy and physiology. It provides the opportunity to explore the systems of the human body and how they work together to create a

functioning individual. The effects of certain diseases on the human body are also studied. Laboratory experiences and required dissections are utilized to help students visualize and discover how the body works.

**Prerequisite: Grade of C- in Biology. (It is not appropriate for students who have taken AP Biology or Anatomy & Physiology to enroll in this course.)**

(.5 credit – meets for one semester)

Open to grades 11-12.

1453  
Anatomy and  
Physiology  
(STEM)

This advanced course is an intensive introduction to human anatomy and physiology, the parts and functioning of the human body. It is recommended for students planning medical or bioscience careers and emphasizes laboratory experiences. These lab experiences involve various dissections that are an integral part of the course and are required. High motivation is needed for success. Human Biology, 1452, is available for students who desire a background in Human Anatomy & Physiology at a less intense level.

**Prerequisite: Grade of B- in Biology (1421/1422).**

(1 credit)

Open to grades 11-12.

1455  
Marine Science  
(STEM)

Marine Science I is an introduction to the marine environment including marine biology and oceanography. Aquarium studies and field investigations, including Project Oceanology field trips, supplement classroom work that allows students to explore aspects of marine life and conditions, especially related to Long Island Sound and Coastal Southeastern Connecticut.

(.5 credit – meets for one semester)

Open to grades 11-12.

1456  
Marine Science/  
University of  
Connecticut Early  
College Experience  
(STEM)

This early college experience course is equivalent to Marn1003 - Introduction to Oceanography with Laboratory, a 4 credit undergraduate course. This course covers the processes governing the geology, circulation, chemistry, and biological productivity of the world's oceans. Emphasis is placed on the interactions and interrelationships between physical, chemical, biological, and geological processes that contribute to both the stability and the variability of the marine environment. Students with a grade of C or greater may earn college credit for this course.

**Prerequisite: Grade of B- in Biology (1421/1422) and C in Chemistry (1431/1432).**

(1 credit)

1464  
Advanced Placement  
Environmental Science  
(STEM)

AP Environmental Science is designed to be the equivalent of a one-semester, introductory college course in environmental science, which includes a laboratory component. Students explore and investigate the interrelationships of the natural world, identify and analyze environmental problems, both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. Students participate in hands-on, laboratory and field investigations to apply scientific principles, concepts, and methodologies in order to better understand our natural systems and to critically think about environmental issues and potential solutions.

**Prerequisite: Grade of C in Biology (1421/1422), Environmental Science (1461/1462) and Chemistry (1431/1432).**

1480  
Forensic Science  
(STEM)

Forensic Science is the use of science in a court of law. This course involves a discussion and practice of the chemical, physical, and biological laboratory techniques used to interpret evidence. The focus is on scientific analysis of mock evidence, rather than crime scene procedures. Blood, DNA, and fingerprinting are examples of mock evidence to be covered. Other possibilities include bones, teeth, insects, toxins, documents, hair and other trace evidence, firearms and ballistics and more.

**Prerequisite: Successful completion of Biology and either Algebra I, Integrated Math I.**

(.5 credit– meets for one semester)

Open to grades 11-12.

1491/1492/1493  
Systems and  
Sustainability  
(STEM)

This course addresses three major themes. The first is Earth's Place in the Universe, which describes the universe as a whole and addresses its grand scale in both space and time. The next is Earth's Systems, which encompasses the processes that drive Earth's conditions (such as plate tectonics, erosion, and climate) and its continual evolution. The last theme, Earth and Human Activity, addresses society's interactions with the planet including the sustainable use of its resources.

(.5 credit – meets for one semester)

Required of all ninth graders. This course must be passed in order to meet graduation requirements.

## SOCIAL STUDIES

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Social Studies offerings.

### What can I do with a major in Social Studies?

Administration	Human Services	Regulatory/Law Enforcement
Advocacy	Intelligence, Foreign Service	Research
Broadcasting	Law	Teaching
Community Relations	Peace Corps	Technical Writing
Corporate & Government Practice	Politics	
Government Services & Agencies	Public Policy	

### ALL COURSES IN THE SOCIAL STUDIES AREA QUALIFY AS HUMANITIES CREDIT.

1270/1271/1272  
World History Modern  
(HUMANITIES)

This course provides an analysis and survey of people, culture, and events the world over. The historical timeline covers from the Enlightenment through WWII and incorporates themes that exist in the current, modern world. There will be an emphasis on providing essential Social Studies skills, including the study of primary source documents, maps and media analysis. This course is aligned with the Reading and Writing literacy standards from the Common Core Standards with specific focus on the development claims and supporting claims with relevant and credible evidence.

Required of all ninth graders. This course must be passed in order to meet graduation requirements.

1241/1242/1243  
Civics  
(HUMANITIES)

This course provides a comprehensive study of the basic principles of American government—federal, state, and local. The duties and responsibilities of citizenship are examined as well as individual rights and their protection through the process of law. There will be a continued emphasis on providing essential Social Studies skills, including the implementation of authentic learning through the completion of a Civic Action Project. This course is aligned with the Reading and Writing literacy standards from the Common Core Standards.

Required of all tenth graders. This course must be passed in order to meet graduation requirements.

1231/1232/1233  
United States History  
(HUMANITIES)

This course is a critical analysis of the history of the United States including both foreign and domestic issues of the 20th and 21st century. This course was designed in conjunction with the Teachers' Curriculum Institute and "History Alive"

supplemental materials. This class will examine critical patterns of interaction among citizens of the United States and their government as well as the US government and foreign nations of influence. Student responsibilities include primary and secondary source reading assignments, writing, research, collaboration, and presentation. This course and its materials are aligned with the Reading and Writing literacy standards from the Common Core Standards.

Required of all eleventh grade students. This course must be passed in order to meet graduation requirements.

1211  
World History:  
Ancient to Medieval  
(HUMANITIES)

This course is the study of the rise, development, and expansion of world civilization. The focus is on the achievements of people and the meaning of events of every major world cultural area, from pre-history to the 1600's. This course is designed as preparation for college.

Open to grades 10-12.

215  
Anthropology  
(HUMANITIES)

Anthropology is an introductory course investigating humankind through the physical, cultural, and archaeological past and present. The central focus will be cultural behavior, a feature unique to humans. Topics investigated may include theories of evolution, culture, kinship, forensics, and other cultural variables, including the study of religions of the world. Reading, writing, and analytical skills are emphasized.

1233  
Current Issues  
(HUMANITIES)

The focus of Current Issues will be to make students more aware of current events. This will be accomplished by investigating current issues, some of which may be controversial, and their historical development. Students will engage in the creation and publication of authentic original ideas as well as authentic learning opportunities throughout the course. Students will study the exercise of power in the production of news and information in the media and the impact of new media technologies and relations with audiences.

Ultimately, students will research and prepare a major oral presentation in which they will use inquiry to trace the development of a current and/or controversial issue in order to take action.

(.5 credit – meets for one semester)

1235  
Advanced Placement  
United States History  
(HUMANITIES)

The Advanced Placement United States History course is designed to be a survey in U. S. History from early American settlements to the present day. There is a heavy emphasis on content knowledge and primary source analysis in this course.



There will be extensive reading and writing assignments in which analytical thinking and student expression are of the utmost importance. Summer assignments will be required. The course is designed to challenge the interested student of history.

There are required summer reading and writing assignments. Students who sign up for AP US History during the summer or at the beginning of the school year can make up these assignments at that time.

Students are expected to take the AP US History Exam in May.

**Prerequisite: Grade of B- in Civics (1241, 1242, 1243) and B- in English 10 (1121) or written consent of Department Chair.**

(1 credit)

Participation in and completion of this course does not guarantee college credit.

The course fulfills the eleventh grade requirement.

1236  
Advanced Placement  
Psychology  
(HUMANITIES)

The purpose of AP Psychology is to introduce the students to a systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major sub-fields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

There are required summer reading and writing assignments. Students who sign up for AP Psychology during the summer or at the beginning of the school year can make up these assignments at that time.

**Prerequisite: Grade of B- in Biology (1421/1422) and Civics (1241, 1242, 1243) or written consent of Department Chair.**

(1 credit)

Participation in and completion of this course does not guarantee college credit.

Open to grades 11-12.

1264  
Modern Genocide  
Studies  
(HUMANITIES)

According to the United Nations, genocide is defined as the “intent to destroy, in whole or in part, a national, ethnical, racial or religious group. Over the course of history, various groups, based on religion, ethnicity, race, or other distinctions

have been the targets of genocide. Why do these genocides occur? What are the defining characteristics of genocide? Is genocide preventable? What is the global community's responsibility in the face of genocide? This course will seek to answer these questions and more. Units of study may include but are not limited to the Holocaust, and genocides in Armenia, Cambodia, Rwanda, Bosnia, and Sudan. Students will read and write frequently, engage in debate, and use multiple approaches to offer potential solutions to the problem of genocide.

(.5 credi – meets for one semester)

1265  
20th Century  
American Culture  
(HUMANITIES)

This course will explore 20th century American popular culture through the decades. Through readings, multimedia resources, and discussion students will consider how the various forms of popular culture (music, television, sports, fashion, movies, toys and games, etc.) have influenced American society through the years. In addition to oral presentations, projects, readings and discussion, students will research a form of popular culture they are interested in, generate an associated claim (thesis) and analyze its role in modern American society as their final project. This "final" project will be a multimedia interactive presentation in which students report out an analysis of their research and support of their associated claim.

(.5 credit – meets for one semester)

1266  
African American/  
Blackand Puerto Rican/  
Latino Studies  
(HUMANITIES)

The African American/Black and Puerto Rican/Latino Course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American/Black and Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation, and wars affected the citizenship rights of these groups and how they, both separately and together, worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts. Coursework will provide students with tools to identify historic and contemporary tensions around race and difference; map economic and racial disparities over time; strengthen their own identity development; and address bias in their communities.

Recommended Prerequisites: US History and Modern World History

Open to grades: 11-12

## SPECIAL EDUCATION DEPARTMENT

### Description and Placement

Special Education services are offered only to students who are eligible under the federal Individuals with Disabilities Education Act, IDEA. This act requires school districts to evaluate and identify children with disabilities who may require specialized instruction in order to provide them with a “free and appropriate public education”. The specialized instruction and or related services that a student with a disability receives depends on the nature of his or her disability and the recommendation of the Planning and Placement Team (PPT). . Federal law requires school districts to document the services each eligible child needs and will receive in a written “Individualized Education Program (IEP). The IEP must be developed and annually reviewed by the student’s PPT, a group consisting of the parents, teachers, and educational specialists. The special education department offers a full continuum of support and services, including the assignment of a case manager who oversees the students’ plan. The Special Education Department also provides vocational skills development, unified skills, social skills development; school related counseling services and transition planning for post-graduation.

### Transition and Organization Skills

In making a smooth transition from middle school to high school, and from high school to post-secondary education plans, many skills need to be developed to adapt to the different expectations placed on students at the high school level and beyond. The goal of the Transition and Organization Skills program at Ledyard High School is to foster independence in students with disabilities, to understand their learning styles, self-advocacy, and meet classroom expectations through self-determination and self-awareness. Specialized instruction related to IEP goals and objectives related to specific skills, such as organization, transition, reading and/math is provided during this class. In addition, academic support for meeting course and graduation requirements is provided. The PPT will determine the frequency of the course, however, students may earn up to 1.0 credit.

Students can not choose the course during the course selection process, placement in this course is determined by the PPT.

1096 Transition and Organization Skills 9 and10 is primarily designed for freshmen and sophomores who have an IEP and who have been recommended for it through the PPT process. Although driven by a student’s IEP, the course focuses on organization to assist with becoming successful and independent learners. Emphasis is also placed on self advocacy.

1095 Transition and Organization Skills 11 and 12 is designed for those who have an IEP and who have been recommended for it through the PPT process. Although driven by a student’s IEP, the course focuses to ensure that students meet graduation requirements and the demands of transitioning to life after high school, whether that means entering post-secondary education, the military, or the work force.The intent of this course is to continue developing skills to become a capable, independent, and responsible student.

### High Needs

The goal of the High Needs Program is to work with students identified through the PPT process as requiring an Applied Behavior Analysis (ABA) approach to individualized learning emphasizing functional, vocational, and independent living skills. Parents, staff members, and service providers will collaborate at the PPT to develop a program that provides direct instruction in the functional and independent living skills necessary in becoming as independent as possible. Emphasis will be placed on developing relationships with adult service providers and transitioning students to programs that will continue to support students into adulthood. Board Certified Behavior Analysts (BCBA) consultation and support is provided through this program.

### Reading

The goal of the reading intervention program is to equip Reading students to meet the rigor of reading and writing required by their academic classes. This program employs a diagnostic and prescriptive approach to intervention, which identifies students whose literacy skills are significantly below their grade level, and offer appropriate instruction. Eligibility is determined by standardized testing scores and the Planning and Placement Team Process. Subsequently, depending on their needs, students will receive direct, explicit instruction in all five areas of reading-phonemic awareness, phonics, fluency, vocabulary, and comprehension.

### Individualized Learning Program

The goal of the Individualized Learning Program is to work with each student in grades 9-12, identified through the PPT process as requiring small group instruction. Additional academic support is provided in two academic areas of Math and English, in a self-contained setting. Each student works at his or her own level, and content is adapted to each student's learning ability. Emphasis will be placed on meeting graduation requirements.

### English 9/10; 11/12

These courses cover a broad and diverse curriculum designed to enhance reading, writing and communication skills for students with a wide range of abilities. Areas of weaknesses are specifically addressed through IEP goals and objectives. Students learn and develop writing skills, vocabulary and grammar studies drawn from context. Literature study exposes students to both fiction and non-fiction classics aligned with the mainstream English courses. CCSS standards are followed and the LHS English Essential Questions and Priority Standards are used and applied to the modified texts.

### Transitional Math I (9/10) and Transitional Math II (11/12)

These courses are taught by a special education teacher and incorporate curriculum and instruction specially designed to meet the needs of students with disabilities. The Transitional Math Program focuses on Algebra and Geometry based upon a modified version of Integrated Math curriculum. Transitional Math 2 focuses on a modified Consumer Math curriculum to assist students in making sound financial decisions as related to real life situations. Placement in Transitional Math I and II will be determined by the PPT.

# TECHNOLOGY EDUCATION

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in Technology Education Offerings.

## Careers that can follow a major in Technology Education are:

Skilled Craft Apprentice	Web Page Designer	Manufacturing Engineer
Carpenter	Mechanical Engineer	Architectural Engineer
Draftsman/CAD Operator	Electrical Engineer	Construction Superintendent
Concrete Worker/Mason	Structural Engineer	Electrical Inspector
Electrician	Teacher	Materials Engineer
Instructor/Educator	Architect	Manufacturer's Representative
Plumber	Design/Pre-Construction	Construction Inspector
Roofer	Engineering Designer	Building Manager
Appraiser	Web Page Designer	Construction Supervisor/Manager
Cost Estimator	Mechanical Engineer	Developer
Inspector/Code Enforcement	Electrical Engineer	Facility Manager
Quality Control Manager	Structural Engineer	Manufacturing Engineer
Technician	Safety Professional	Industrial Designer
Design/Pre-construction	Field Engineer	Construction Engineer
Engineering Designer	Marketing Designer	Industrial Engineering Technician
Graphic Designer	Civil Engineer	

ALL COURSES IN THE TECHNOLOGY AREA QUALIFY AS A STEM CREDIT.

## COMMUNICATIONS

### Project Lead the Way courses:

- 1715 Introduction to Engineering Design (IED)
- 1725 Principles of Engineering (POE)
- 1735 Computer Science Principles (CSP)
- 1783 Digital Electronics (DE)
- 1740 Civil Engineering & Architecture (CEA)

1715

Introduction to  
Engineering Design  
(STEM)

### **This is one of several courses in the PLTW curriculum.**

This course teaches problem-solving skills through the application of an engineering design process. Designs of product solutions are created, modeled, analyzed, and communicated using solid modeling computer design software. This course will allow a student to develop technical drawing, sketching, and computer modeling skills using industry standard software.

**Prerequisite: Successful completion of Algebra I or concurrently enrolled.**

1725  
Principles of  
Engineering  
(STEM)

**This is one of several courses in the PLTW curriculum.**

Principles of Engineering is an introduction to the engineering profession, the engineering disciplines and the engineering design process. This course exposes students to some of the major concepts they will encounter in a postsecondary engineering course of study. Team-oriented, hands-on design projects will emphasize critical thinking, teamwork, and oral and written presentations. Exploring various technology systems and manufacturing processes to help students learn how engineers and technicians use math, science and technology in solving engineering problems to benefit people.

PLTW and Principles of Engineering are associated with the University of New Haven (UNH). If sufficient requirements are met, a student has the opportunity to earn 3 credits in engineering with UNH.

**Prerequisite: Successful completion of Geometry or be concurrently enrolled.**

1735  
Computer Science  
Principles (CSP)  
(STEM)

**This is one of several courses in the PLTW curriculum.**

This course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. CSP helps students develop programming expertise and explore the workings of the Internet using Python as a primary tool and incorporating multiple platforms and languages for computation. Projects and problems include app development, visualization of data, cybersecurity, and simulation.

AP Option: Students desiring a higher level course may choose to enroll in the alternative pacing Advanced Placement CSP course. AP Students will be graded based on more rigorous expectations and required to demonstrate a greater degree of mastery of course concepts, Students will need to indicate their preference for the AP level CSP course by the mid-point of the first quarter and are expected to take the AP CSP exam in May.

**Prerequisite: Successful completion of Algebra I or concurrently enrolled.**

1783  
Digital Electronics  
(STEM)

**This is one of the several courses in the PLTW curriculum.**

This course in applied logic encompasses the application of digital electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to

actual construction of circuits and devices.

**Prerequisite: Successful completion of Geometry or concurrently enrolled.**

1740  
Civil Engineering  
& Architecture  
(STEM)

**This is one of the several courses in the PLTW curriculum.**

This course teaches students how to apply the design process toward solving civil engineering and architectural problems. Student design projects will be modeled using industry standard Building Information Modeling software. The focus will be on residential design in the first semester and commercial building design during the second semester.

A wide variety of hands-on activities will allow students to explore soil testing, surveying and differential leveling, truss design and analysis, mechanical, electrical, and plumbing design, and more.

**Prerequisite: Successful completion of Introduction to Engineering Design and Principles of Engineering.**

## **MANUFACTURING AND CONSTRUCTION**

1702  
Metals I  
(STEM)

This activity-based course promotes learning through doing. The course offers students hands on opportunities to explore how metal is formed, shaped, and finished. Student activities will be concentrated in the areas of sheet metal fabrication, hot metal casting and plumbing.

(.5 STEM credit meets for one semester)

1736  
Metals II  
(STEM)

This course emphasizes machine tool manufacturing. Building on skills obtained from Metals I, students will be able to develop valuable skills using industrial machinery such as lathes, millers, surface grinders, welding and metal cutting. Students will utilize the skills acquired to design and construct a project of their choice.

Due to the course rigor of Metals II and the importance placed on shop safety, it is strongly recommended that students should have achieved a Metals I grade of C- or better before taking Metals II.

1703  
Woods I  
(STEM)

This activity-based course promotes learning through doing. Students will construct various projects with an emphasis on shop safety, problem solving, and manufacturing accuracy. Formal instruction on machine and hand tools will be conducted to give students a foundation from which to build

their skills. In addition, basic computerized machining skills will be introduced and practiced. Students will be required to write on manufacturing technology topics.

(.5 **STEM** credit meets for one semester)

1756  
Advanced Woods  
(STEM)

Advanced Woods is an activity-based course where students will design and construct advanced projects in a problem solving environment. As part of this expectation, students will work as a team while mass producing, marketing and selling a product. Advanced hand tool skills, wood joining methods, wood identification strategies, as well as conventional and computerized machining skills will be further polished and perfected. Possible woodworking careers will be examined and students will be required to write on various manufacturing technology topics.

Due to the course rigor of advanced woods and the importance placed on shop safety, it is strongly recommended that students with a Woods I grade of lower than a C- retake Woods I before taking advanced woods.

## **POWER MECHANICS AND TRANSPORTATION**

1706  
Power Mechanics  
(STEM)

This “hands on” course introduces students to basic internal combustion engine fundamentals and trouble shooting strategies. Students will completely tear-down and rebuild a 4-cycle engine. Various modes of transportation will be covered as well including, airplanes, alternative powered automobiles, and/or space transportation. Students may be required to write and present on various power mechanics topics.

(.5 **STEM** credit-meets for one semester)



## **VIRTUAL HIGH SCHOOL**

Juniors and seniors may consider taking a course in the Virtual High School. Candidates must be independent and self-motivated since all course work is completed online at the student's own pace. A course is taken in VHS as one of a student's 8.00 credits and time for the course work is built into the student's schedule. The selected course **MUST** be a course that is not available for the student to take at LHS either because it is not offered or because it would not fit into the student's schedule.

Seniors will be given priority. Limited space is available. Students who enroll in a VHS course are expected to complete the course, as a dropped course represents an expense to the district. Nevertheless, students who choose to drop a VHS course will accrue financial responsibility at the rate of \$100 per credit.

Interested students should see their counselor to discuss course offerings and availability.

Students **MUST** have the recommendation of the appropriate Instructional Leader.

## WORLD LANGUAGES AND CULTURES

The Connecticut Career Clusters, their pathways, and 21st Century skills are integrated in World Language offerings.

### What can I do with a World Language major?

Advertising	Import/Export Agent	Medical Professional
Art Conservator	Intelligence Agent	Multinational Lobbyist
Broadcasting	International Business	Peace Corps
Chef	International Finance	Public Relations Specialist
Customs Official	International Law	Writer
Foreign Correspondent	Interpreter	Teacher
Foreign Services Officer	Journalist	Translator
Foreign Student Advisor	Language Researcher	Travel Agent
Immigration Official	Linguist	

### ALL COURSES IN THE WORLD LANGUAGE AREA QUALIFY AS HUMANITIES CREDIT.

1511  
French I  
(HUMANITIES)

This course introduces students to the basic structure of the language with special emphasis on listening and speaking skills. Intensive practice of French sounds and study of spelling correspondences are designed to establish accurate pronunciation. Daily practice, listening and speaking activities, interactive CD-ROM sessions in the language lab, and regular reading and writing assignments provide opportunities to use the target language. Students gain an understanding of Francophone life and culture through discussion, technological support materials, personal projects, and class presentations.

1512  
French II  
(HUMANITIES)

This course expands the student's mastery of the fundamentals of French I. Listening, speaking, reading, and writing skills are more intensively practiced with the emphasis on developing speaking skills. Oral proficiency is developed through the use of pair and small group interaction, skits, chapter projects, interactive CD-ROM activities in the language lab, and discussion of cultural readings. All students are assessed in reading, writing, listening, speaking, and knowledge of culture. Performance based assessments will replace some chapter tests.

#### **Prerequisite: Grade of C- in French I.**

1513  
French III  
(HUMANITIES)

This course reviews language structures and continues to build conversational and composition skills. Students are introduced to more complex grammatical structures. Frequent opportunities for oral and written expression in the target language are provided in class and through interactive CD-ROM sessions in the language lab. Students are assessed in

reading, writing, listening, speaking, and knowledge of culture. Performance based assessments will replace some chapter tests. Students are expected to speak in the French over English.

**Prerequisite: Grade of C- in French II.**

1514  
French Grammar  
and Composition  
University of  
Connecticut Early  
College Experience  
(HUMANITIES)

This course is a composition course as well as a review of grammar. It includes thorough review of the structure of the target language and continues the study of grammar at an advanced level. Students work on improving their writing skills while reading different types of texts. They begin with a survey of French literature and read short stories, poems, plays and a short novel. Because this is a writing intensive course, students write and revise a minimum of 15 pages during the semester including the final 1500 words/5 page paper. Conversation skills continue to be developed as French is spoken exclusively at this level.

Students who successfully complete the course including the five-page paper will be eligible to receive three credits for FREN 3268W from the University of Connecticut.

**Prerequisite: C in French III.**

Offered in academic years ending in an odd number.

1515  
French Culture  
and Conversation  
University of  
Connecticut Early  
College Experience  
(HUMANITIES)

This course explores and improves students' knowledge of francophone culture by watching francophone films. With the help of the films, discussions, prepared scenes and oral presentations, students explore diverse aspects of francophone contemporary culture, expressing themselves in French. This course helps improve oral language, speaking in French, the ability to communicate like a francophone and the understanding of both spoken and written French in different situations and subjects. Students learn to be more comfortable speaking, in a number of different situations that are both personal and also those on the subject of French and francophone culture.

The study of French and Francophone culture through film. Emphasis on perfecting both oral and written expression through discussion, presentations, and composition on assigned topics. Writing assignments are graded using a rubric created by the French UCONN teaching staff.

Students who successfully complete the course including the five-page paper will be eligible to receive three credits for FREN 3250 from the University of Connecticut.

**Prerequisite: C in French III.**

Offered in academic years ending in an even number.

1521  
Spanish I  
(HUMANITIES)

This course presents the fundamentals of grammar, pronunciation, reading, and writing. Students gain proficiency through the use of text, CD's, interactive CD-ROM activities, workbooks, and readings. Students gain an understanding of aspects of the culture of Spanish-speaking countries and peoples through the use of visual aids, discussions, and projects. Emphasis is on communication.

1522  
Spanish II  
(HUMANITIES)

This course expands the student's mastery of the fundamentals of Spanish I. The same skills are stressed and students are expected to use the language in class more frequently. Cultural and historical studies are presented through a variety of readings. Oral presentations, dialogues, skits, and technology projects may be required.

**Prerequisite: Grade of C- in Spanish I.**

1523  
Spanish III  
(HUMANITIES)

This course reviews grammar and expands the student's knowledge base of the geography, history, literature, fine arts, and culture of the Spanish speaking world. Communication skills continue to be a primary focus, with oral/aural and written use of the target language a daily expectation for students. Reading skills are promoted through a variety of sources and activities that support curricular and school-wide expectations.

**Prerequisite: Grade of C- in Spanish II.**

1524  
Spanish IV  
(HUMANITIES)

This course reinforces previously taught structures while introducing increasingly sophisticated structures by refining listening, speaking, writing, and reading skills. Students polish their interpersonal, interpretative, and presentational language skills while developing basic understanding of Advanced Placement units and fully emerging into the history and culture of Spanish speaking countries.

**Prerequisite: C in Spanish III.**

1526  
AP Spanish  
(HUMANITIES)

This course is comparable to an intermediate level college Spanish language course. Emphasizing the use of Spanish for active communication, it encompasses aural/oral skills, reading comprehension, grammar, and composition. The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines, rather than to the mastery of any specific-subject matter. Students will

receive extensive training in the organization and writing of compositions as an integral part of this AP course. The course focus is 60 percent reading/writing and 40 percent listening/speaking.

Summer reading may be required.

Students are expected to take the AP Spanish Language Exam in May.

**Prerequisite: B- in Spanish IV.**

1529  
Immersion Spanish I  
(HUMANITIES)

Once a student has successfully completed Spanish II he/she is eligible to participate in the Immersion Spanish Program. The Program is designed to be either 1) a supplement to Spanish III/IV/AP, taken in the same year, or 2) an alternative track for acquisition learners.

This course is a mixed-level course that focuses on listening and speaking. Students use previously acquired knowledge and skills to converse with classmates in Spanish. Themes include medical, restaurants, workplace, travel, etc. Students function and communicate in real life contexts. Little to no English is spoken. The course focus is 5 percent reading/writing and 95 percent listening/speaking.

**Prerequisite: Grade of B in Spanish II or C in Spanish III.**

1530  
Immersion Spanish II  
(HUMANITIES)

In this mixed-level course students function and communicate in real life contexts using previously acquired knowledge and skills. Advanced skills are developed, such as negotiating, expressing and supporting opinions, arguing, evaluating, and teaching. English is not spoken. The course focus 5 percent reading/writing and 95 percent listening/speaking.

**Prerequisite: Grade of B- in Immersion Spanish I.**

1531  
Immersion Spanish III  
(HUMANITIES)

In this mixed-level course students function and communicate in real life contexts using previously acquired grammar and vocabulary. Advanced vocabulary and grammar are introduced and reviewed. Advanced skills are refined, such as negotiating, expressing and supporting opinions, arguing, evaluating, critiquing and teaching. English is not spoken. The course focus 5 percent reading/writing and 95 percent listening/speaking.

**Prerequisite: Grade of B- in Immersion Spanish II.**

# WORK SHEET

## Grade 9

It is possible that some courses may not be offered in the event of enrollment, staffing, or budgetary deficiencies. Please add alternate electives to your course requests and designate them as such.

Courses meet alternate days for the full year and earn one credit or meet alternate days for one semester and earn .5 credit unless otherwise indicated.

Courses indicated with an asterisk (\*) require skills in many academic areas and do not fall within the domain of a specific department.

### Required:

1010A/B	Physical Education (.5 credit)
111 //	English 9
127 //	World History Modern
142 //	Biology
149 //	Systems & Sustainability (.5 credit)

### Select one of the following:

131 //	Algebra I
132 //	Geometry
1371	Integrated Math I

### One Credit of World Language is required for graduation:

1511	French I
1512	French II
1521	Spanish I
1522	Spanish II
1523	Spanish III

### Electives:

1020	Sport Psychology (.5 credit)
1160	Creative Writing (.5 credit)
1161	Drama (.5 credit)
1162	Public Speaking (.5 credit)
1215	Anthropology
1223	Current Issues (.5 credit)
1264	Modern Genocide Studies (.5 credit)
1265	20th Century American Culture (.5 credit)

1604	Personal Finance (.5 credit)
1606	Marketing (.5 credit)
1621	Accounting I
1702	Metals I (.5 credit)
1703	Woods I (.5 credit)
1706	Power Mechanics (.5 credit)
1715	Introduction to Engineering Design
1725	Principles of Engineering
1735	Computer Science Principles
1783	Digital Electronics
1826	Culinary Arts I (.5 credit)
1832	Sewing and Fashion (.5 credit)
1840	Housing & Interior Design (.5 credit)
1905	Drawing I (.5 credit)
1908	Sculpture (.5 credit)
1911	Art I
1916	Ceramics I (.5 credit)
1920	Chamber Choir
1921	Music Appreciation (.5 credit)
1922	Music Theory I (.5 credit)
1925	Music Production (.5 credit)
1927	Beginning Keyboard (.5 credit)
1928	Guitar I (.5 credit)
1932	Concert Choir
1935	Jazz Band
1934	Symphonic Band
1942	Colonel Singers
1943	Chorale
1943S	Select Singers
1951	Agriscience and Technology I

# WORK SHEET

## Grade 10

It is possible that some courses may not be offered in the event of enrollment, staffing, or budgetary deficiencies. Please add alternate electives to your course requests and designate them as such.

Courses meet alternate days for the full year and earn one credit or meet alternate days for one semester and earn .5 credit unless otherwise indicated.

Courses indicated with an asterisk (\*) require skills in many academic areas and do not fall within the domain of a specific department.

### Required:

1010A/B	Physical Education (.5 credit)
112 //	English 10
124 //	Civics
13 _ //	Math Course
143 //	Chemistry
1810	Health

### Electives:

1020	Sport Psychology (.5 credit)
1150	Journalistic Publications I
1160	Creative Writing (.5 credit)
1160F	Creative Writing Prose (.5 credit)
1160V	Creative Writing Poetry (.5 credit)
1161	Drama (.5 credit )
1162	Public Speaking (.5 credit)
1180	Shakespeare on Film (.5 credit)
1211	World History: Ancient to Medieval
1215	Anthropology
1223	Current Issues (.5 credit)
1264	Modern Genocide Studies (.5 credit)
1265	20th Century American Culture (.5 credit)
131 //	Algebra I
132 //	Geometry
133 //	Algebra II
1371	Integrated Math I
1372	Integrated Math II
1373	Integrated Math III



1425 A. P. Biology (1.5 credits)  
1466 A. P. Physics I

**One Credit of World Language is required for graduation:**

1511 French I  
1512 French II  
1513 French III  
1521 Spanish I  
1522 Spanish II  
1523 Spanish III  
1529 Immersion Spanish I

1604 Personal Finance (.5 credit)  
1606 Marketing (.5 credit )  
1621 Accounting I  
1623 Accounting II

1702 Metals I (.5 credit)  
1703 Woods I (.5 credit))  
1706 Power Mechanics (.5 credit)  
1715 Introduction to  
Engineering Design  
1725 Principles of Engineering  
1735 Computer Science Principles  
1736 Metals II  
1740 Civil Engineering  
and Architecture  
1756 Advanced Woods  
1783 Digital Electronics

1826 Culinary Arts I (.5 credit)  
1827 Culinary Arts II (.5 credit)  
1832 Sewing and Fashion (.5 credit)  
1840 Housing & Interior Design  
(.5 credit)

1903004 Painting Studio (.5 credit)  
1905 Drawing I (.5 credit)  
1906 Drawing II (.5 credit)  
1907 Print & Book Making (.5 credit)  
1908 Sculpture (.5 credit)  
1911 Art I  
1912 Art II  
1916 Ceramics I (.5 credit)  
1917 Ceramics II (.5 credit)

1920 Chamber Choir  
1921 Music Appreciation (.5 credit)  
1922 Music Theory I (.5 credit)  
1925 Music Production (.5 credit)  
1927 Beginning Keyboard (.5 credit)  
1928 Guitar I (.5 credit)  
1929 Guitar II (.5 credit)  
1932 Concert Choir  
1935 Jazz Band  
1934 Symphonic Band  
1942 Colonel Singers  
1943 Chorale  
1943S Select Singers

1952 Agriscience and Technology II  
(2 credits)

# WORK SHEET

## Grade 11

It is possible that some courses may not be offered in the event of enrollment, staffing, or budgetary deficiencies. Please add an alternate elective to your course requests and designate it as such.

Courses meet alternate days for the full year and earn one credit or meet alternate days for one semester and earn .5 credit unless otherwise indicated.

Courses indicated with an asterisk (\*) require skills in many academic areas and do not fall within the domain of a specific department.

### Required:

113 / /	English 11 or
1145	A. P. English Language & Composition
123 / /	United States History
1235	Advanced Placement US History
13 / /	Math Course
14 / /	Physics Course (1.0 or .5 credit)
14 / /	Science Course (if .5 Physics course selected)

### Electives:

1020	Sport Psychology (.5 credit)
1030	Advanced Physical Education (.5 credit)
1150	Journalistic Publications I
1155	Journalistic Publications II
1160	Creative Writing (.5 credit)
1160F	Creative Writing—Prose (.5 credit)
1160V	Creative Writing—Poetry (.5 credit)
1161	Drama (.5 credit)
1162	Public Speaking (.5 credit)
1180	Shakespeare on Film (.5 credit)
1211	World History: Ancient to Medieval
1215	Anthropology
1223	Current Issues (.5 credit)
1236	AP Psychology
1264	Modern Genocide Studies (.5 credit)
1265	20th Century American Culture (.5 credit)
1266	African American/Black & Puerto Rican/ Latino Studies
131 / /	Algebra I
132 / /	Geometry

133 / /	Algebra II
1362	Algebra III
134 / /	Pre-Calculus
1350	Statistics
1354	AP Statistics
1369	Consumer Math
1371	Integrated Math I
1372	Integrated Math II
1373	Integrated Math III
1400	Earth Science
1425A/B	A.P. Biology (1.5 credits)
143 / /	Chemistry
1435A/B	A. P. Chemistry (1.5 credits)
1442	Physics
1443	Exploring Physics (.5 credit)
1450	Bioethics (.5 credit)
1452	Human Biology (.5 credit)
1453	Anatomy and Physiology
1455	Marine Science (.5 credit)
1456	Marine Science/UCONN Early College Experience
1464	A.P. Environmental Science
1466	A.P. Physics I
1467	A.P. Physics II
1480	Forensic Science (.5 credit)
1511	French I
1512	French II
1513	French III
1514	French Grammar & Composition/UConn ECE
1515	French Culture & Conversation/UConn ECE
1521	Spanish I
1522	Spanish II
1523	Spanish III
1524	Spanish IV
1526	AP Spanish
1529	Immersion Spanish I
1530	Immersion Spanish II
1606	Marketing (.5 credit)
1621	Accounting I
1623	Accounting II
1604	Personal Finance (.5 credit)
1702	Metals I (.5 credit)
1703	Woods I (.5 credit)
1706	Power Mechanics (.5 credit)
1715	Intro to Engineering Design
1725	Principles of Engineering

1735	Computer Science Principles
1736	Metals II
1740	Civil Engineering and Architecture
1756	Advanced Woods
1783	Digital Electronics
1826	Culinary Arts I (.5 credit)
1827	Culinary Arts II (.5 credit)
1832	Sewing and Fashion (.5 credit)
1840	Housing and Interior Design (.5 credit)
1841	Understanding Self & Relationships
1844	Child Development
1888	*Independent Study
1903004	Painting Studio (.5 credit)
1905	Drawing I (.5 credit)
1906	Drawing II (.5 credit)
1907	Print & Book Making (.5 credit)
1908	Sculpture (.5 credit)
1911	Art I
1912	Art II
1914	Advanced Studio Art
1916	Ceramics I (.5 credit)
1917	Ceramics II (.5 credit)
1920	Chamber Choir
1921	Music Appreciation (.5 credit)
1922	Music Theory I (.5 credit)
1925	Music Production (.5 credit)
1927	Beginning Keyboard (.5 credit)
1928	Guitar I (.5 credit)
1929	Guitar II (.5 credit)
1932	Concert Choir
1935	Jazz Band
1934	Symphonic Band
1942	Colonel Singers
1943	Chorale
1943S	Select Singers
1953	Agriscience and Technology III (2 credits)
2309	Uconn ECE Intro to Companion Animals (2 credits)
2316	Uconn ECE Floral Art I semester 1 (2 credits)
2317	Uconn ECE Horticulture Fundamentals semester 2 (2 credits)

# WORK SHEET

## Grade 12

It is possible that some courses may not be offered in the event of enrollment, staffing, or budgetary deficiencies. Please add an alternate elective to your course requests and designate it as such.

Courses meet alternate days for the full year and earn one credit or meet alternate days for one semester and earn .5 credit unless otherwise indicated.

Courses indicated with an asterisk (\*) require skills in many academic areas and do not fall within the domain of a specific department.

### Required:

114 //	English 12 or
1146	AP English Literature & Composition
13 // or 14//	Math or Science
1812	Health 12

### Electives:

1020	Sport Psychology (.5 credit)
1030	Advanced Physical Education (.5 credit)
1150	Journalistic Publications I
1155	Journalistic Publications II
1160	Creative Writing (.5 credit)
1160F	Creative Writing – Prose (.5 credit)
1160V	Creative Writing – Poetry (.5 credit)
1161	Drama (.5 credit)
1162	Public Speaking (.5 credit)
1180	Shakespeare on Film (.5 credit)
1211	World History: Ancient to Medieval
1215	Anthropology
1223	Current Issues (.5 credit)
1236	AP Psychology
1264	Modern Genocide Studies (.5 credit)
1265	20th Century American Culture (.5 credit)
1266	African American/Black & Puerto Rican/Latino Studies
131 //	Algebra I
132 //	Geometry
133 //	Algebra II
1362	Algebra III
134 //	Pre-Calculus
1345	AP Calculus AB

1347	Calculus I	1725	Principles of Engineering
1350	Statistics	1735	Computer Science Principles
1354	AP Statistics	1736	Metals II
1369	Consumer Math	1740	Civil Engineering and Architecture
1371	Integrated Math I	1756	Advanced Woods
1372	Integrated Math II	1783	Digital Electronics
1373	Integrated Math III		
1400	Earth Science	1826	Culinary Arts I (.5 credit)
1425A/B	AP Biology (1.5 credits)	1827	Culinary Arts II (.5 credit)
143 //	Chemistry	1832	Sewing and Fashion (.5 credit)
1435A/B	AP Chemistry (1.5 credits)	1840	Housing and Interior Design (.5 credit)
1442	Physics	1841	Understanding Self & Relationships
1450	Bioethics (.5 credit)	1844	Child Development
1452	Human Biology (.5 credit)	1888	*Independent Study
1453	Anatomy and Physiology		
1455	Marine Science (.5 credit)	1903004	Painting Studio (.5 credit)
1456	Marine Science/UCONN Early College Experience	1905	Drawing I (.5 credit)
1464	AP Environmental Science	1906	Drawing II (.5 credit)
1466	AP Physics I	1907	Print & Book Making (.5 credit)
1467	AP Physics II	1908	Sculpture (.5 credit)
1480	Forensic Science (.5 credit)	1911	Art I
		1912	Art II
1511	French I	1914	Advanced Studio Art
1512	French II	1916	Ceramics I (.5 credit)
1513	French III	1917	Ceramics II (.5 credit)
1514	French Grammar & Composition/UCConn ECE		
1515	French Culture & Conversation/UCConn ECE	1920	Chamber Choir
1521	Spanish I	1921	Music Appreciation (.5 credit)
1522	Spanish II	1922	Music Theory I (.5 credit)
1523	Spanish III	1925	Music Production (.5 credit)
1524	Spanish IV	1927	Beginning Keyboard (.5 credit)
1526	AP Spanish	1928	Guitar I (.5 credit)
1529	Immersion Spanish I	1929	Guitar II (.5 credit)
1530	Immersion Spanish II	1932	Concert Choir
1531	Immersion Spanish III	1935	Jazz Band
		1934	Symphonic Band
1606	Marketing (.5 credit)	1942	Colonel Singers
1621	Accounting I	1943	Chorale
1623	Accounting II	1943S	Select Singers
1604	Personal Finance (.5 credit)		
		1954	Agriscience and Technology IV (2 credits)
1702	Metals I (.5 credit)	2409	Uconn ECE Advanced Floral Design semester 1 (2 credits)
1703	Woods I (.5 credit)		
1706	Power Mechanics (.5 credit)		
1715	Intro to Engineering Design		

## FOUR-YEAR PLANNED PROGRAM

9th Grade		10th Grade	
English 9	1.00	English 10	1.00
World History Modern	1.00	Civics	1.00
Math	1.00	Math	1.00
Biology	1.00	Chemistry	1.00
Systems & Sustainability	.50	Physical Education	.50
Physical Education	.50	Health	.50
Electives/World Language	3.00	Electives/World Language	3.00
<b>Total</b>	<b>8.00</b>	<b>Total</b>	<b>8.00</b>

11th Grade		12th Grade	
English 11	1.00	English 12	1.00
U.S. History	1.00	Math or Science	1.00
Math	1.00	Health 12: CPR/First Aid	.50
Physics 1.0 <u>or</u> Physics .50	.50 or 1.00	Mastery Based Diploma Project (Capstone)	1.00
Electives/World Language	4.00 or 4.50	Electives/World Language	3.50 to 4.50
<b>Total</b>	<b>8.00</b>	<b>Minimum Total</b>	<b>7.00</b>

NOTE: GRADUATION REQUIREMENTS ARE GIVEN ON THE BACK OF THE FRONT COVER. 9.0 STEM & 9.0 HUMANITIES CREDITS MUST BE EARNED IN ADDITION TO THE SPECIFIC SUBJECT AREAS LISTED ABOVE.

