LYMAN MEMORIAL HIGH SCHOOL

PROGRAM OF STUDIES

2026-2027



917 Exeter Road Lebanon, Connecticut 06249

Home of the Bulldogs

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Principal

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SUSAN J. MIKE
Assistant Principal



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Dear Current and Future Lyman Students and Parents,

Thank you for your interest and continued support in making Lyman Memorial High School such a special place for students to grow and explore interests. The faculty and staff are dedicated to providing the best educational opportunity available for our students as they prepare for our complex and changing society. As you plan for your future please take full advantage of the many programs that are available to all students at Lyman. Selection of appropriate and challenging high school courses will help you grow intellectually, socially, physically, and emotionally, ensuring you are college and career ready upon graduation.

Lyman Memorial High School Program of Studies contains information about course requirements, class rank, grade policy, vocations, testing, school to career, and more. Of particular importance is the information about each department and a description of each course including the level of difficulty (AP, Honors and College Prep). Please pay special attention to any new courses that were added as well as courses that can earn your student college credit while in high school. As you contemplate college and career choices, you will find our professional staff ready and willing to assist you. Be sure to consult with your school counselor prior to course selection. Your school counselor is your most important link to developing your personal program of study, tailored to your interests, while here at Lyman Memorial High School

As you prepare for your course selection, utilize both the following Program of Studies and the expertise of our faculty to answer questions about specific courses of interest. We look forward to providing you with a rich and varied academic experience. We are very pleased that you are a member of the Lyman Memorial High School student body and wish you a most enjoyable and personally rewarding experience while you are with us.

Sincerely,

Mr. James Apicelli, Principal

The Lebanon Board of Education is committed to a policy of equal opportunity/affirmative action for all qualified persons and equal access to the Boy Scouts of America and other designated youth groups. The Lebanon Board of Education does not discriminate in any employment practice, education program, or educational activity on the basis of race, color, religious creed, sex, age, national origin, ancestry, marital status, sexual orientation, gender identity or expression, disability (including, but not limited to, intellectual disability, past or present history of mental disorder, physical disability or learning disability), genetic information, or any other basis prohibited by Connecticut state and/or federal nondiscrimination laws.

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GENERAL INFORMATION

Lyman Memorial High School provides a comprehensive curriculum which enables you, the student, to select courses which fulfill requirements for graduation and which suit your interests and abilities for personal growth. Use this Program of Studies to plan your academic schedule for the upcoming year. Course descriptions, prerequisites, levels, and course credit is listed for each course offered. Specific courses may not be offered in the final schedule due to lack of facilities, faculty, or sufficient enrollment.

LMHS STATEMENT OF PHILOSOPHY

The faculty and administration of Lyman Memorial High School recognize the unique academic, personal, and social strengths of each of its students. Our primary responsibility is to provide challenges and opportunities for all students to experience continued growth and maturity in all aspects of their development. Our ultimate goal is to facilitate the acquisition of academic capabilities, social responsibilities, and personal awareness necessary to lead fulfilled and productive lives.

The educational program at Lyman Memorial High School is designed to teach students how to organize and integrate important concepts and information, as well as to become more independent in their learning. Our aim is to produce life-long learners who can meet the learning demands of their careers and personal lives.

A variety of activities and support services complement the classroom experience and promote and enhance the total development of all our students.

PROGRAM GOALS

In order to accomplish these outcomes, the school has adopted the following goals for education.

1. Mastery of basic skills
2. Acquisition of knowledge
3. Motivation to learn
4. Competence in life skills
5. Understanding society's values

The curriculum at Lyman Memorial High School will be designed and driven by the mission statement, the learning outcomes, state-wide goals and the common core of learning.

NON-DISCRIMINATION STATEMENT

Title VI, Title IX, section 504

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The compliance officer is Dawn DeLia. (860) 642-7795 891 Exeter Rd, Lebanon, CT 06249

STUDENT SERVICES PROGRAM

In addition to the Developmental Guidance Program which services the planning & adjustment needs of all students, the Student Services Program offers students with individual and special needs an array of support and special education program options.

PSYCHOLOGICAL SERVICES

The school psychologist is an important member of the pupil services team. The psychologist provides direct testing, counseling, and referral services to students and their families, with a focus on issues affecting educational progress and success. The school psychologist assists the Student Strategy Team and the Planning and Placement Team in evaluating and identifying student learning and school adjustment needs and is available to consult with the school staff.

SOCIAL WORK SERVICES

The goal of the school social worker is to mobilize family, school, and community resources, in order to enable students to learn as effectively as possible in their educational program. The school social worker assists students and families with social and emotional needs, via student counseling, ongoing consultation with school teachers and administration, meetings with the Student Support Team and parent communication. The school social worker also works closely with community providers, and can offer referrals for students/families regarding additional programs and agency support in the area.

COLLABORATIVE TEACHING

Collaboratively Taught Courses support integrating identified Special Education students in regular education classes. Adaptations and modifications are utilized as the student's Individualized Educational Plan requires. While the course curriculum is that of regular education, team teaching allows for unique modification in presentation, pacing and student performance. These courses are offered pending staff availability and student need.



LYMAN MEMORIAL HIGH SCHOOL

917 Exeter Road LEBANON, CT 06249

GUIDANCE OFFICE (860) 642-5687

GUIDANCE OFFICE FAX (860) 642-3521

MR. DAVID TEDESCO
School Counselor
860-642-5682

MRS. DARLENE LOUKIDES
School Counselor
860-642-5685

Dear Students,

As you plan your course selections for next year, please keep in mind that the courses you select should prepare you to succeed not only in high school, but after graduation as well. With this in mind, you should be considering possible career choices and post-secondary education/training programs that interest you. The Guidance Department at Lyman Memorial High School can assist you in determining the requirements you must fulfill to continue on to the educational/training program that you desire.

In addition, you should select a schedule that is manageable yet challenging. Your achievement in these courses will be the greatest determining factor in the options you will have available to you upon graduation from Lyman. The Course Listings in this guide will give you the insight needed to make the appropriate choices for your schedule. Your school counselor will also be an invaluable source of information in determining an appropriate selection of courses. Please do not hesitate to make an appointment to discuss your choices with your counselor.

Finally, you should carefully review the information in this program with the help of a parent or guardian. This will ensure that you are aware of the opportunities and services available to you. Included in this guide is information on class rank, GPA, graduation requirements, and a logical guidance timeline for you to follow. Please contact your school counselor with any questions.

Sincerely,

David Tedesco
School Counselor

Darlene Loukides
School Counselor

DEVELOPMENTAL GUIDANCE
CAREER PLANNING

GUIDANCE MISSION and PHILOSOPHY

To promote and enhance student's learning experiences through the acquisition of skills in the academic, career, and personal/social domains of student growth and development.

School Counseling is viewed as an educational philosophy as well as a distinct, defined program of services that are an integral part of our educational process. The program is committed to positive individual student growth, development and personal achievement. In addition it strives to inspire young people to enjoy learning, and growing, to nurture one's sense of self-worth, to take responsibility for one's life and to develop a sense of belonging to a community. School counseling services facilitate and nurture the developmental personal-social, career and educational needs of all students. It is collaborative in nature and depends on the continuing support of school, staff, parents and community.

TIMELINE FOR STUDENTS

GRADE 8

- Attend Lyman Memorial's 8th Grade Open House
- Review Program of Studies Booklet
- Meet with 8th grade counselor
- Complete course selection sheet
- Complete Agricultural Science Application if appropriate.

GRADE 9

FALL

- Attend freshman orientation.
- Review school handbook for information such as graduation requirements.
- Receive schedule before school year begins.
- Make necessary adjustments in schedule during the first six days of school.
- Complete Learning Styles Inventory and Career Skills Assessment with counselor.
- Select extra-curricular activities/athletics program.

SPRING

- Plan an academic schedule for next year.
- Make an appointment to meet with your school counselor to review plans for grade 10 and to discuss post-secondary plans.
- Take PSAT 9 Exam

GRADE 10

FALL

- Review school handbook for information such as graduation requirements.
- Make necessary adjustments in schedule during the first six days of school.
- Take PSAT/NMSQT at Lyman in October.
- Continue active participation in school activities/athletics.

SPRING

- Plan an academic schedule for next year.
- Make an appointment to meet with your school counselor.
- Take the "Do What You Are" personality & Career Skills Assessment with a counselor.

GRADE 11

FALL

- Review school handbook for information such as graduation requirements.
- Make necessary adjustments in schedule during the first six days of school.
- Take PSAT at Lyman. (**National Merit Competition**)
- Attend college representative visits to Lyman.

SPRING

- Plan an academic schedule for next year.
- Take the SAT and/or ACT.
- Begin developing a resume & a post-secondary plan with your counselor.
- Attend a College Fair.
- Begin planning college visits.
- Attend Junior College Night at Lyman.
- Complete AP testing as appropriate.
- Take State Standardized testing (SAT).

GRADE 12

FALL

- Review school handbook for information such as graduation requirements.
- Make necessary adjustments in schedule during the first six days of school.
- Continue to research career/college opportunities.
- Meet with a school counselor.
- Retake SAT/ ACT if needed.
- Attend college representative visits to Lyman.
- Complete college applications including resumes.
- Request recommendation letters.
- Attend the Financial Aid Night at Lyman.
- Complete FAFSA and CSS Profile form for financial aid if required.
- Research Scholarships.

SPRING

- Focus on career/job search.
- Make a college choice and send in deposits.
- Complete AP testing as appropriate.
- Notify counselor of college acceptances.

LYMAN MEMORIAL HIGH SCHOOL
GRADUATION REQUIREMENTS

The following twenty-six (26) credits, for classes up to and including 2029, are necessary in order to graduate and be granted a diploma.

Starting with the class of 2030, the World Language requirement will change to one (1) required credit and total credits required will change to twenty-five (25) total credits.

English	**4 credits**
Mathematics	**4 credits**
Social Studies	**3 credits** Must include 1 credit in US History and ½ credit in Civics
Science	**3 credits** Must include 1 credit in Biology
Physical Education	**1 credit** (.5 credit must include traditional PE 921)
Health	**1 credit**
World Language	**2 credits** ***1 credit starting with the class of 2030**
Senior Project	**1 credit**
Financial Literacy	**0.5 credits** Must take one of the following: Personal Finance, Advanced Algebra with Financial Applications or Ag Management
Additional Electives	**7-8 credits as needed to achieve a total of 26 credits (25 for the Class of 2030 and beyond).** **Note: any credits earned beyond the specific class requirements listed above count as electives, e.g. a fourth credit of Science or Social Studies in addition to traditional electives such as Art, Music, Tech Ed, Ag Science, Business, Computer Science and Family Consumer Science.**

***Must participate in the State approved mastery tests or district approved alternative assessment(s)**

NOTE: Students are required to take a minimum of seven credits each year to be considered a full time student in good standing per Lebanon Board of Education Policy.

PORTRAIT OF A GRADUATE

To ensure that students have the necessary skills and dispositions to accomplish our mission, the school community has identified six qualities that each student should develop over their Pre-K-12 experience and demonstrate prior to graduation.

Responsible Citizen

A responsible citizen collaborates with diverse people to accomplish community goals through democratic processes. They manage themselves and their resources in a way that is beneficial to their community. A student who demonstrates the qualities of a responsible citizen:

- Respects diverse people, cultures, and viewpoints when addressing a variety of issues;
- Contributes to the betterment of their community;
- Applies their understanding of democratic processes to participate in community decisions;
- Advocates for themselves and others;
- Manages time and materials appropriately; and
- Makes ethical and responsible decisions.

Effective Communicator

An effective communicator clearly conveys their ideas using the appropriate medium. They adjust their presentation of ideas as needed to better reach their audience. A student who demonstrates the qualities of an effective communicator:

- Uses a multitude of platforms (digital and analog) to meaningfully express ideas;
- Articulates and defends their viewpoint clearly in writing, in media and orally;
- Applies the conventions of their chosen communication medium appropriately; and
- Adapts their communication to the needs of a particular audience.

Innovative Problem Solver

An innovative problem solver thinks flexibly when analyzing and reflecting on their work. They attempt challenging problems and persevere in solving them. A student who demonstrates the qualities of an innovative problem solver:

- Engages in challenging work by developing plans to accomplish it;
- Develops flexible and/or creative solutions;
- Analyzes and evaluates situations to draw conclusions and troubleshoot issues; and
- Reflects on successes and failures and persists in improving their work.

Critical Thinker

A critical thinker asks thought provoking questions and seeks out accurate information to answer those questions. They assess the validity of ideas and opinions by drawing on their experiences and on data. A student who demonstrates the qualities of a critical thinker:

- Asks appropriate and insightful questions;
- Supports an argument with accurate, relevant, and compelling evidence;
- Seeks out a range of information to inform their opinion and evaluates it critically;
- Recognizes bias and differences in perspective in self and others; and
- Connects new learning to prior knowledge.

Lifelong Learner

A lifelong learner builds knowledge and skill through practice and the application of appropriate learning strategies. They possess a well-rounded pool of background knowledge and skills, which they can leverage to address their areas for growth. A student who demonstrates the qualities of a lifelong learner:

- Articulates their current strengths and weaknesses as a learner;
- Develops healthy coping strategies to compensate for areas of personal difficulty;
- Applies their understanding of growth mindset to the learning of new skills/knowledge;
- Demonstrates an understanding of the fundamental concepts within a discipline; and
- Identifies community organizations that offer assistance and learning opportunities beyond those available in their school.

Engaged Collaborator

An engaged collaborator actively participates in and makes beneficial contributions to group endeavors regardless of their role. They can switch between leadership and supporting roles easily, as well as give and act on appropriate feedback. A student who demonstrates the qualities of an engaged collaborator:

- Listens to and values the contributions of others;
- Accepts feedback and adapts ideas;
- Contributes to a group goal both independently and interdependently; and
- Works effectively in both leading and supporting roles.

SUMMER SCHOOL INFORMATION

Lyman students may have the opportunity to make up failed classes in an approved summer school credit recovery program. In some cases, summer school may be necessary for students that have not earned the required number of credits to become a senior in their fourth year. Only those students who have been enrolled in a course for the full term and received a failing grade may enroll in credit recovery summer school. In some cases, registration deadlines are in mid-June but other programs offer extended deadlines. Parents are encouraged to contact their child's teacher to discuss their academic standing in a course if they believe a student may be in danger of failing.

Typically, Lyman students enroll in online summer programs through Virtual High School or the Keystone School. Other programs may also be available. Counselor/Administrator pre-approval for summer school courses is required and counselor/administrator signatures may be needed on enrollment forms depending on the program. If you are interested in a summer school program, please call to discuss appropriate courses and registration. All summer credit recovery courses must be completed by the start of the new school year. Information on Virtual High School and Keystone summer courses is available at the links below.
vhslearning.org/summer
keystoneschoolonline.com/credit-recovery

CLASS RANK & GPA

Class rank at Lyman Memorial High School is based on a weighted system as recommended by colleges and professional organizations. That is, rigorous courses are assigned more quality points than less demanding courses for the same earned grade. Class rank value is calculated by determining the number of quality points for each course taken according to the grade earned, adding the quality points and dividing by the number of credits. Semester classes will be half the quality points of year long classes. Students are then ranked using their class rank values. Only leveled courses count towards class rank. GPA is an unweighted overall average based on final grades in all courses and is reported on a 4.00 scale. Class rank and GPA will be computed based on final grades at the end of the school year for grades 9 - 11 and at the close of the second marking period for seniors.

LEVELS OF DIFFICULTY

AP Advanced Placement/ECE UCONN Early College Experience/CCP College Career Pathway - This rigorous course of study offers students the opportunity to gain college credit while in High School. Students should be prepared to engage in intensive study and independent work.

H - Honors - Courses are designed with a very high level of academic challenge in terms of sophistication of concepts, pace, and productivity. A substantial amount of academic work is expected to be completed outside of the classroom and completed by the assigned due dates. Students who accept the challenge of independent work and choose to exceed minimum requirements are encouraged to participate.

CP - College Preparatory - Courses are designed to prepare students for the challenge of post-secondary educational institutions. There is a high level of challenge and an expectation that the students are academically responsible. Students will be required to complete assignments outside of the classroom. Homework is counted as a major percentage of the student's grade. All work is expected to be completed and turned in by the assigned due dates.

Courses included in class rank are listed below, and will be designated by the letters 'CR' in the individual course descriptions. Courses not included in class rank are marked 'NR'. Although all attempts are made to designate all courses included in class rank in this guide, some courses may not be indicated at the time of printing. Please see your school counselor if you have any questions.

QUALITY POINT MATRIX

	AP/ECE/CCP	H	CP	M
100	19.00	17.00	15.00	11.00
99	18.75	16.75	14.75	10.75
98	18.50	16.50	14.50	10.50
97	18.25	16.25	14.25	10.25
96	18.00	16.00	14.00	10.00
95	17.75	15.75	13.75	9.75
94	17.50	15.50	13.50	9.50
93	17.25	15.25	13.25	9.25
92	17.00	15.00	13.00	9.00
91	16.75	14.75	12.75	8.75
90	16.50	14.50	12.50	8.50
89	16.25	14.25	12.25	8.25
88	16.00	14.00	12.00	8.00
87	15.75	13.75	11.75	7.75
86	15.50	13.50	11.50	7.50
85	15.25	13.25	11.25	7.25
84	15.00	13.00	11.00	7.00
83	14.75	12.75	10.75	6.75
82	14.50	12.50	10.50	6.50
81	14.25	12.25	10.25	6.25
80	14.00	12.00	10.00	6.00
79	13.75	11.75	9.75	5.75
78	13.50	11.50	9.50	5.50
77	13.25	11.25	9.25	5.25
76	13.00	11.00	9.00	5.00
75	12.75	10.75	8.75	4.75
74	12.50	10.50	8.50	4.50
73	12.25	10.25	8.25	4.25
72	12.00	10.00	8.00	4.00
71	11.75	9.75	7.75	3.75
70	11.50	9.50	7.50	3.50
69	11.25	9.25	7.25	3.25
68	11.00	9.00	7.00	3.00
67	10.75	8.75	6.75	2.75
66	10.50	8.50	6.50	2.50
65	10.25	8.25	6.25	2.25
64	10.00	8.00	6.00	2.00
63	9.75	7.75	5.75	1.75
62	9.50	7.50	5.50	1.50
61	9.25	7.25	5.25	1.25
60	9.00	7.00	5.00	1.00
59	0.00	0.00	0.00	0.00

NATIONAL HONOR SOCIETY

Lyman Memorial High School sponsors the Wheelock chapter of the National Honor Society, the preeminent national service organization that recognizes students for outstanding academic achievement, exemplary character, strong leadership and dedicated service to the school and community. Membership is selective and limited to juniors and seniors who have spent at least one semester at Lyman Memorial High school. Beginning with the class of 2011, students must have an overall 87 average and a **minimum** of a 14 on the quality point matrix.

Eligibility is based on the cumulative high school average. Once a student is determined eligible for membership, he or she must complete an application which is then reviewed by the Faculty Selection Committee. The committee is guided by the four tenets of NHS: scholarship, character, leadership, and service. Each one of these qualities is defined below.

Scholarship – students must demonstrate a commitment to academic excellence.
Character – students must be above reproach; they are trustworthy and respected by students and staff alike.
Leadership – students are not only taking leadership roles in school and community activities, but also demonstrating leadership in the school setting through appropriate classroom and school-wide behaviors.
Service – students must demonstrate a commitment to helping others both within and outside of school including extracurricular activities, athletics, community service, and volunteer work.

POST SECONDARY PLANNING

The vision of Lyman Memorial High School is that all students will have the opportunity to connect the learning that takes place within the school's walls to both the needs and demands of higher education and to the full range of careers offered by the job market.

Students are encouraged to take a full course load and explore areas of interest throughout their time at Lyman. Students are encouraged to regularly communicate with their school counselor about future interests and plans. Students, through the use of AchieveWorks group and individual school counselor meetings, will explore possible career opportunities.

LYMAN COLLEGE CREDIT PROGRAMS

There are several ways that students can earn college credit while attending Lyman Memorial High School. Most of these programs are free of charge and allow students to earn credits that may transfer to most university and college programs throughout the state such as UCONN, Eastern Connecticut State, and Three Rivers Community College, as well as many schools throughout the country. These programs are a great way to save money on college tuition and get a head start on your college graduation requirements. Please see your school counselor if you are interested in any of the following opportunities.

College Career Pathways (CCP)

The CCP program allows students the opportunity to earn college credit for classes taken at Lyman Memorial High School. The credits are granted through Three Rivers Community College and are transferable to most of the nation's colleges and universities, such as the University of Connecticut, and Eastern Connecticut State, depending on each school's policy. This opportunity is free of charge. Courses taken for credit through the CCP program will also be counted as credit towards high school graduation requirements (dual credit). Currently, Accounting II and Personal Finance have been articulated for dual credit through CCP. Students must apply to the CCP program and meet grade requirements to be eligible for college credit. Please see your school counselor for additional information. A new addition to the CCP program is the Certified Nursing Assistant course that is being run through Three Rivers Community College that will allow students to earn their CNA certification upon completion of the course and passing the state certification exam. **There is a fee for the CNA state exam.**

WHIP Program

The WHIP Program allows Lyman students to take up to two free courses at Eastern Connecticut State University per semester, including summer sessions. This program is open to juniors and seniors. Participation is limited to five students per semester. To take advantage of this opportunity, applicants must be in the top 30% of their class and be recommended by their school counselor or principal.

New London Scholars Program

The New London Scholars Program allows seniors with excellent academic records to enroll in a college course at Connecticut College free of charge. This opportunity is limited to two students per year selected by the Guidance Department and the Principal.

Three Rivers High School Partnership Program

The HS Partnership Program is currently available to eligible high school juniors and/or seniors who wish to study subjects not offered by their high school, broaden their education, earn college credits, explore career options or build on their skills. Eligible students will attend TRCC and be funded for one college course per semester. Students must have a 2.7 GPA to be eligible. Space is limited to four Lyman students per semester.

UCONN ECE

UCONN Early College Experience (ECE) is a concurrent enrollment program that allows motivated high school students to take UCONN courses at their high schools for both high school and college credit. Every course taken through UCONN ECE is equivalent to the same course at the University of Connecticut. Students benefit by taking college courses in a setting that is both familiar and conducive to learning. High School instructors who have been certified through the University of Connecticut serve as adjunct faculty members and teach UCONN ECE courses. Lyman offers UCONN ECE courses in Human Rights, Philosophy, Floriculture and Animal Science. Not all ECE courses are offered each year. Some courses may run on alternating years while others may not be offered due to insufficient enrollment. **There is a fee for ECE courses and students must submit an ECE application to be eligible.**

ADVANCED PLACEMENT COURSES

AP stands for Advanced Placement; it is a program of college level courses and exams that gives the opportunity to earn advanced placement and/or credit for college while they are still in high school.
Please see your counselor with any questions regarding the AP program.

Students requesting AP courses must have demonstrated a combination of the following criteria:

- Excellent writing skills.
- Commitment to independent learning and rigorous out-of-class work.
- Willingness to contribute to in-class learning.
- Willingness to take the AP test.

Here are a few additional benefits of taking AP Exams:

- Tuition savings. Students whose AP performance earns them sophomore standing at college save on a whole year's tuition.
- Time to explore subject areas at college that you wouldn't otherwise be able to study, time for a double major or graduate course, and time to pursue internships.
- Eligibility for honors and other special programs open to students who have received AP recognition.

Colleges are very much aware that AP students, as a group are:

- Better prepared academically for the demands of college courses and perform better on college admission measures.
- Less likely to drop out of college.
- More likely to specialize in majors with tougher standards.
- More likely to complete more course work and to take a greater number of higher level courses.
- More likely to graduate with a double major.
- Twice as likely to go into advanced study.

Note: Not all of the AP courses listed below are offered each year. AP courses may not be offered due to insufficient enrollment while other AP courses are offered in alternating years.

There are a number of Advanced Placement courses offered at Lyman. The program includes courses in:

2D Art and Design
3D Art and Design
Biology
Calculus AB
Calculus BC
Chemistry
Computer Science A
Computer Science Principles
Drawing
English Language and Composition
Environmental Science
English Literature and Composition
European History
Precalculus
Physics 1
Spanish Language
Statistics
United States History
United States Government and Politics

COLLEGE SEARCH AND APPLICATION PROCESS

Responsibilities of the student/parent:

- Submit online applications for admission (including the STARS self-reported transcript when required) for the colleges/universities you plan to apply to or download/register applications online through college website or commonapp.org
- After a student applies, they **must notify** the guidance office via the Transcript Request Form immediately so corresponding school records may be mailed from the guidance office. (Forms are available in the guidance office - Two weeks notice is required for all transcript requests)
- Be aware of and register for all assessments required by the colleges/universities you are applying to (SAT, ACT, etc).
- Schedule visits and/or interviews at college/post-secondary schools.
- Meet all application and financial aid deadlines.
- Write required/recommended essays with the help of an English Teacher.
- Request letters of recommendation from faculty at least two weeks in advance of when it will be needed.
- Request letters of recommendation from Counselor at least two weeks in advance of when it will be needed or it cannot be guaranteed.
- Make sure all supplemental recommendation forms are submitted to teachers and counselors at least two weeks in advance of the deadline.
- Request official SAT score reports from the College Board as well as ACT score reports from ACT to be sent to appropriate colleges/universities when applicable.
- Complete and submit the Free Application for Federal Student Aid (FAFSA) and CSS Profile (if applicable).
- Research and apply for scholarships.
- Many schools require applicants to set up an online admissions portal after a student applies. Most colleges will email you with portal info so keep tabs on your emails.

Responsibilities of the School Counselor:

- Provide the opportunity for individual counseling and advisement with each student.
- Be accessible to both parents and students for assistance throughout the search and application process.
- Assist students/parents in researching deadlines, requirements and other relevant information upon request.
- Host college admissions representatives throughout the year.
- Host a Financial Aid Night to review FAFSA, CSS Profile and scholarships.
- Make available FAFSA and SAT/ACT registration info and other forms/information when appropriate in the guidance office.
- Update and maintain the Online Scholarship Binder and Summer Programs Binder, which is available to students and parents in the Guidance Office.
- Forward official school records to colleges upon request via the Transcript Request Form (transcripts, class rank, G.P.A., school profile, secondary school reports etc…)

NCAA ELIGIBILITY TO PARTICIPATE IN COLLEGE SPORTS

Many college athletic programs are regulated by the National Collegiate Athletic Association (NCAA), an organization founded in 1906 that has established rules on eligibility, recruiting, and financial aid. The NCAA has three membership divisions - Division I, Division II, and Division III. Institutions are members of one or another division according to the size and scope of their athletic programs and whether they provide athletic scholarships.

If you are planning to enroll in college as a freshman and you wish to participate in Division I or Division II athletics, you must be certified by the NCAA Initial-eligibility Clearinghouse. The clearinghouse was established by the NCAA member institutions in January 1993. The Clearinghouse ensures consistent application of NCAA initial-eligibility requirements for all prospective student athletes at all member institutions.

NCAA Clearinghouse information can be found online at NCAA.org and eligibilitycenter.org. Prospective College athletes should familiarize themselves with the requirements to ensure they are taking the required courses to gain eligibility.

*** IMPORTANT NOTE:** Some courses do not meet NCAA eligibility requirements. To view the full list of approved courses, please log on to eligibilitycenter.org.

COURSE LISTINGS

SENIOR PROJECT

951 Grade 12 (Required for all students) 1.0 credit

The Senior Project is a culminating exercise that focuses on a personal interest, career path or academic pursuit that synthesizes classroom knowledge with real world experience and demonstrates personalized learning consistent with the district's pillars of a Portrait of a Graduate.

The purpose of the Senior Projects is for students to demonstrate skills and knowledge gained through their academic career by completing a long-term, multi-faceted project. Over the course of the project, students conduct research, maintain a journal or work log detailing the steps taken, create a final product or performance, and give an oral presentation that demonstrates what they've learned. Each student will have the assistance of a faculty monitor to advise them. Students will begin their Senior Project in the second semester of their junior year.

PROGRAM DESCRIPTION

The Agricultural Science & Technology Program is designed to prepare students to enter directly into an agriculture related career or continue their education in Agriculture or Environmental Sciences. It is an elective program offered in a four year sequence.

The program is based on four years of enrollment. The student would, in the first two years, be enrolled in exploratory units of study, covering all major areas of agriculture. Development of fundamental skills, particularly in the area of safety, would be stressed during the exploratory units.

The third and fourth years of enrollment will consist of classes designed to best prepare the individual student to meet his or her career objective in agriculture. Students will select an area of concentration at the conclusion of their sophomore year. This sequence of courses will provide an in-depth study into the area of choice. Students will also receive instruction in areas of study common to all of agriculture. These include career awareness, agricultural business management, leadership development, and the practical application of "learning by doing". All students while in either their Junior or Senior year are required to take the Agricultural Business Management Class. While career awareness and agriculture business management are designed as specific units of instruction, leadership development will be experienced through the organization of the FFA chapter. The "learning by doing" will be the supervised agricultural experience program, (S.A.E.), which is a required component of the program. The S. A. E. program provides for relevancy and transference of learning to the workplace, and decision-making for future education and careers. Applications for admission to the program are available from the Agricultural Science Dept. or can be downloaded off the ASTE website, acceptance into the program allows you to enroll in all ASTE classes. https://sites.google.com/lebanonct.org/lebanonagscience/home

AGRICULTURAL SCIENCE & TECHNOLOGY PROGRAM PARTICIPATION CRITERIA

1. **Academic Achievement**: Students must maintain full time credit status and must maintain passing grades in all classes. Students failing any class during the school year will be placed on probation with the expectation that the student will improve their academic performance.

2. **Social Responsibility & Citizenship**: Students must show appropriate behavior and follow the school rules at all times, as stated in the Lyman Memorial High School and Community Handbook.

3. **Work Ethic & Behavior**: Students must complete all of the assigned activities in each of the Lab areas (Agricultural Mechanics Shop, Greenhouse, Animal Lab, and Barn Areas). Written class work (term papers, oral reports, projects, etc.) and tests will be assigned by the individual instructors.

4. **Participation**: Students must participate in all of the instructional areas of the program. The program is exploratory in the first and second year. Starting in the third year, students may choose an area of concentration. The only class that is required of all junior and seniors to complete is the Agricultural Business Management Class.

5. **Clothing**: Students must wear suitable and safe clothing in order to participate in laboratory activities. It is required that a change of work clothes and/or coveralls be available for students. Safety glasses must be worn in the shop area and will be supplied by the Agricultural Science & Technology Program.

6. **Field Trips**: Students are required to attend certain field trips and other activities. These trips will be announced in advance and may include a Saturday activity.

7. **Leadership & Service**: Students need to keep their S.A.E. project up to date and show development over the course of the three years in the Agricultural Science & Technology Program. All requirements for the S.A.E. project must be met. The SAE is a required component of the Agricultural Science experience.

8. **FFA Activities**: Students must participate in a minimum of 4 FFA activities a year. In addition, students must complete a minimum of 10 community service hours.

AGRICULTURAL SCIENCE

101 Grade 9 NR Credit: 1.0

Students will study a variety of topics, including the following Agricultural units: Tractor Driving, Public Speaking, FFA & Parli-Pro, Natural Resources, Animal Science, Plant Science, and Agricultural Mechanics.

AGRICULTURAL SCIENCE

102 Grade 10 NR Credit: 1.0

Students will study a variety of topics, including the following Agricultural units: Plant and Soil Science, Animal Science, Agricultural Mechanics, Forestry, Public Speaking & Award Applications, Wildlife, and Pesticides.

AGRICULTURAL SCIENCE LABORATORY EXPERIENCE

1040 Grade 10 NR Credit: 0.5

Semester classes and will provide supplemental activities for Agricultural Science 102.

AGRICULTURAL SCIENCE AND TECHNOLOGY
Grades 11 and 12

All students will select an area of concentration during their junior and senior year. Students will be afforded an opportunity to follow a sequence of course offerings that will provide an in-depth study in the area of their choice. Students will also have the opportunity to select Agricultural Electives, which are courses from other areas of the Agricultural Science concentrations, to complete their program, including a senior internship experience which is highly recommended. All courses are semester courses. Entering junior you will need to select eight semester courses to complete your final two years in the agricultural program. The following concentrations are available including the recommended course requirements for each concentration.

Plant Science	
Basic Floriculture Introduction to Horticulture Agricultural Business Management Advanced Floriculture	Introduction to Food Science Turf Grass Management Principles of Landscape Design Agricultural Elective

Agricultural Production, Large Animals	
Animal Science Animal Systems and Dairy Products	Food and Meat Science Veterinary Science Vet Tech I Vet Tech II
Agricultural Business Management Equine Science or Dairy Management	

Agricultural Mechanics	
Small Engines and Equipment Forestry Turf Grass Management Principles of Landscape Design	Agricultural Fabrication Agricultural Maintenance Large Equipment Agricultural Business Management

Natural Resource	
Aquaculture Forestry Agricultural Business Management Agricultural Elective	North American Wildlife Wildlife Management Agricultural Elective Agricultural Elective

UCONN ECE BASIC FLORICULTURE

ECE1051 Grades 11, 12 ECE CR Credit: 0.5

This course is offered in the Spring.

Students have the opportunity to take this class as an **Early College Experience** class through the University of Connecticut. This course is an introduction to floral design and will expose students to basic design principles including the evolution of floriculture. Students will learn the care and processing of flowers including various styles of arrangement in content. Students will learn how to grow and market bedding plants in the greenhouse. Students will arrange and grow flowers appropriate for the fall and winter seasons. ***Open to non-Ag students starting the first day of the school year.**

BASIC FLORICULTURE

1051 Grades 11, 12 H CR Credit: 0.5

This course is offered in the Spring.

Students have the opportunity to take this class as an **Early College Experience** class through the University of Connecticut. This course is an introduction to floral design and will expose students to basic design principles including the evolution of floriculture. Students will learn the care and processing of flowers including various styles of arrangement in content. Students will learn how to grow and market bedding plants in the greenhouse.

Students will arrange and grow flowers appropriate for the fall and winter seasons.

UCONN ECE ADVANCED FLORICULTURE

ECE1062 Grades 11, 12 ECE CR Credit: 0.5

This course is offered in the Spring.

Prerequisite: Basic Floral

In this course students will continue to learn advanced floral designs. Students will also explore greenhouse structures and hydroponics. Students have the opportunity to take this class as an **Early College Experience** Class through the University of Connecticut. ***Open to non-Ag students starting the first day of the school year.**

ADVANCED FLORICULTURE

1062 Grades 11, 12 H CR Credit: 0.5

This course is offered in the Spring.

Prerequisite: Advanced Floriculture

In this course students will continue to learn advanced floral designs. Students will also explore greenhouse structures and hydroponics. No UCONN credit earned.

INTRODUCTION TO FOOD SCIENCE

001065 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Prerequisite: Introduction to Horticulture

Students will learn the differentiation of scents and aromas, the different aspects of taste and the components of our food in addition to a piece of Farm-to-table. The Farm-to-table movement educates students on where their food comes from and how things are grown and then turned into the food that we eat, in addition to promoting consumers nationwide to "Buy local." Students will be able to see how their food is grown in the greenhouse and then implement those ingredients while cooking in the food lab.

UCONN ECE INTRODUCTION TO HORTICULTURE

ECE1066 Grades 11, 12 ECE CR Credit: 0.5

This course is offered in the Spring.

Students will learn the ideals of greenhouse maintenance and production, planting and growing of seeds, hydroponics, and also the preparation and planting of the large garden outside in addition to all of the harvesting. Students will be able to get a stronger outlook on the vegetable production industry and a better understanding of plant development from seeds all the way through harvesting.***Open to non-Ag students starting the first day of the school year.**

INTRODUCTION TO HORTICULTURE

1066 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Students will learn the ideals of greenhouse maintenance and production, planting and growing of seeds, hydroponics, and also the preparation and planting of the large garden outside in addition to all of the harvesting. Students will be able to get a stronger outlook on the vegetable production industry and a better understanding of plant development from seeds all the way through harvesting. No UCONN credit earned.

VETERINARY SCIENCE 1

1006 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Students will learn terminology, study disease prevention and treatment for large animals. They will also learn anatomy and physiology as it relates to large animals.

VET TECH I

1017 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Students will be able to identify the anatomy and physiology of various species of small animals. Medical vocabulary and terminology to veterinary science will also be included, as well as disease prevention and treatment of small animals.

VET TECH II

1020 Grades 11, 12 NR Credit: 0.5

This course will be offered in Spring.

Prerequisite: Vet Tech I

This course is designed for students to learn lab animal care, safety, and research. Students will learn and apply restraint, vaccinations, and surgical procedures.

MEAT, POULTRY AND FOOD SCIENCE

1027 Grades 11, 12 NR Credit: 0.5

*Formerly: Food and Meat Science

This course is offered in the Fall.

The students will learn about meat processing, the cuts of meats, proper storage and handling of meat. In addition they will complete units in Food Science and Poultry Science, where they will learn about growing and processing of poultry and food.

LARGE ANIMAL SCIENCE

1024 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

The students will learn about beef, sheep, and hog management, including housing, nutrition, terminology, reproduction, and management.

EQUINE SCIENCE

1026 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Prerequisite: Animal Systems and Dairy Products

Students will learn breeds, handling, care, equipment, diseases, reproduction, nutrition, and uses for horses.

ANIMAL SYSTEMS AND DAIRY PRODUCTS

1013 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Students will learn nutrition, reproduction, animal health, and dairy products, including how to milk a cow, make ice cream, and identify cheese.

DAIRY MANAGEMENT

1025 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Prerequisite: Animal Systems and Dairy Products

Students will learn breeds, housing, care, equipment, diseases, reproduction, nutrition, terminology, and management.

AGRICULTURAL MANAGEMENT

100 Grades 11, 12 CP CR Credit: 0.5

Topics students will discuss include but are not limited to terminology as it relates to business, partial budgets, enterprise budgets, cash flow statements, and futures markets, etc. This class is required for all ASTE students and it fulfills the Financial Literacyg requirement for graduation.

SMALL ENGINES AND EQUIPMENT

1014 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

This course will explore the theory and development of two and four cycle internal combustion engines and their applications to equipment such as lawnmowers, snow blowers, weed whackers, log splitters. Students will have the opportunity to diagnose and repair engines and equipment. ***Open to non-Ag students starting the first day of the school year.**

AGRICULTURAL FABRICATION

1012 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Agricultural Fabrication allows the student to advance their knowledge of mechanical processes as they relate to the areas of agricultural mechanics. Areas to be explored include tool making and maintenance, carpentry, planning/design, roofing, and welding. An emphasis will be placed on the development of orderly and safe lab procedures for many practical skills that will be developed.

LARGE EQUIPMENT

1001 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Students learn about large pieces of agricultural equipment as well as maintenance and repair techniques. Students also learn about alternative fuel sources such as biodiesel and how to make it. Agricultural farming processes are practiced to gain experience with large equipment.

AGRICULTURAL MAINTENANCE

1004 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Agricultural Maintenance allows the student to advance their knowledge of infrastructure maintenance as they relate to the areas of agricultural mechanics. Students will advance their knowledge in electricity and will be able to wire a building. Plumbing and masonry will also be taught. An emphasis will be placed on the development of orderly and safe lab procedures for many practical skills that will be developed.

FORESTRY

1016 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

This course will explore the history of forestry in the United States and show the development of modern forest management. Students will learn about the anatomy and functions of trees and how we benefit from them. Students will also learn about forest products and practice making maple syrup in our sugarhouse. By the end of the course, students will be able to identify many local trees and shrubs.

AQUACULTURE

1045 Grades 11, 12 NR Credit: 0.5

This course is offered in the Spring.

This course provides an in-depth look into the field of aquaculture as well as semi-aquatic species. In the class, students will learn about fish biology, growing techniques, water quality, and harvest techniques. A trip to the state fish hatchery is part of the class. Students will also learn about reptiles and amphibians, as well as different environmental issues that are affecting aquatic species.

NORTH AMERICAN WILDLIFE

1010 Grades 11, 12 NR Credit: 0.5

This course focuses on the flying and crawling creatures in our environment. From insects to birds, students learn about identification, anatomy, niches, and benefits. Students also receive hands-on experience working with a real beehive and learn how honey is made. Ticks and Lyme Disease are also studied. ***Open to non-Ag students starting the first day of the school year.**

WILDLIFE MANAGEMENT

1002 Grades 11, 12 NR Credit: 0.5

This course is offered in the Fall.
In this course, students learn about the ecology of forests and how it affects wildlife. Students also learn about waterfowl, game birds, bats, and conservation law enforcement. Students install and monitor wood duck boxes in local wetlands. ***Open to non-Ag students starting the first day of the school year.**

BEHAVIOR AND TRAINING DOMESTIC ANIMALS

ECE1064 Grades 11, 12 ECE CR Credit: 0.5
1064 Grades 11, 12 H CR Credit: 0.5

Students have the opportunity to take this class as an **Early College Experience** class through the University of Connecticut. Basic concepts covered are nutrition, physiology, health and management of companion animals. The student will be able to: Understand the basics of normal and abnormal behavior in domestic animals and learn to apply psychological principles to animal management and training. Interpret research results and evaluate their applicability to domestic animal management. Understand how to apply the principles of ethology to solve animal welfare problems. Handle and care for the school's animals correctly. Interpret animal behaviors and execute protocols for safe handling.

INTRODUCTION TO COMPANION ANIMALS

ECE 1063 Grades 11, 12 ECE CR Credit 1.0
1063 Grades 11, 12 H CR Credit: 0.5

Students have the opportunity to take this class as an **Early College Experience** class through the University of Connecticut. This is an introductory course for students interested in the care, and management of companion animals. Basic concepts will include: nutrition, physiology, health and management for animals. The students will be able to: Describe the management, nutritional requirements, health care, anatomy, reproduction and genetics of various companion animals. Evaluate and discuss ethical and/or current issues regarding companion animals. Handle and care for classroom companion animals. Attend class field trips to local companion animal businesses such as humane society, pet store, control office, or an animal shelter or have guest presenters come to class. Perform simple health check evaluations on animals. Establish and maintain favorable environmental conditions. Interpret animal behaviors and execute protocols for safe handling. ***Open to non-Ag students starting the first day of the school year for the ECE section only .**

AGRICULTURAL SCIENCE INTERNSHIP

1050 Grade 12 NR Credit: 0.5

Internships are highly recommended for senior agricultural science students. Internships are carefully monitored work or service experiences where the student has stated learning goals and has the opportunity to gain practical experiences in areas related to those goals. An internship is a semester class and would be considered one of the elective choices as listed in the concentrated areas. An internship requires that several prerequisites be completed by the student prior to commencing with the out-of-school experience. Students need to consult and arrange an internship with an agricultural science teacher the semester prior to their scheduled, fall or spring, internship semester.

TURF GRASS MANAGEMENT

000TURF Grades: 11, 12 NR Credit: 1.0

This course is designed for those students who have an interest in the plant science field as Landscapers, Nurserymen, and Grounds Maintenance Technicians. Students will maintain landscaping equipment, tend to the grounds, and study turf management principles. Hands-on activities include equipment maintenance, landscape design and installation,and lawn maintenance. ***Open to non-Ag students starting the first day of the school year**

PRINCIPLES OF LANDSCAPE DESIGN

708 Grades 11, 12 NR Credit: 1.0

The course acquaints the student with basic skills in plant identification, nursery crop production, landscape equipment safety, and operation, plus an introduction to landscape design. This course is designed for those students who have an interest in the plant science field as Landscapers, Nurserymen, and Grounds Maintenance Technicians. Students will learn how to price out jobs and management of both landscaping and nursery businesses, how to design and build different landscape features such as gardens, irrigation systems, and hardscapes, using hand drawing and computer design software. ***Open to non-Ag students starting the first day of the school year**

ART

Lyman Memorial's art department strives to meet students' needs with its wide range of course offerings. Courses include a variety of both two and three-dimensional art courses including photography, graphic design, and an AP Studio art course. Opportunities for individual self-expression through the art process are provided at the beginning, intermediate, and advanced levels.

DESIGN I (2D)

770 Grades 9, 10, 11, 12 NR Credit: 0.5

This foundation course will focus on the introduction to the elements and principles of design, the use of a variety of media and the role of the arts and the artist in history and society. Experiences will include: 2-D art making, an exploration of topics from the history of art, and class critiques. Collage, printmaking, painting, pastel and charcoal design are possible assignments. Interest in art and motivation are the primary prerequisites for this course.

DESIGN II (3D)

771 Grades 9, 10, 11, 12 NR Credit: 0.5

This foundation course will continue to focus on the elements and principles of design, the use of a variety of media and the role of the arts and the artist in history and society. Experiences will include: 3-D art making, and exploration of topics from the history of art, and class critiques. Clay, wire, papier-mâché, and cardboard, are possible media used in this course.

DESIGN III

793 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is offered to students who successfully completed Design I who wish to continue exploring a variety of media and techniques introduced in Design I. Experiences will include two-dimensional art-making, exploration of topics from art history, and class critiques. Collage, printmaking, painting, pastel, and watercolor are possible assignments. Using the elements and principles of design in advanced design projects will be the focus of this course.

DRAWING I

772 Grades 9, 10, 11, 12 NR Credit: 0.5

Students will apply the elements of design and composition to drawing while exploring a variety of drawing media and techniques which may include pencil, pen and ink, charcoal, conte, colored pencil, marker, and pastel. Weekly sketchbook assignments are given for the development of drawing skills. Nature drawings, landscapes, figure drawings, and still life will provide subject matter for a variety of assignments. Concepts of proportion, perspective, and composition will be introduced.

DRAWING II

780 Grades 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Drawing I

Students will continue to work with media introduced in Drawing I and will further develop skills in composition. The elements of line, shape, value, form, space, color, and design principles will be explored on an advanced level with emphasis on the development of drawing skills and fluency of individual expression. This course will focus on the development of skill in proportion, perspective and composition. Weekly sketchbook assignments are given to enhance classroom instruction. Subject matter may include landscapes, architectural rendering, figure drawing and portraiture as well as subject matter first explored in Drawing I.

PAINTING I

773 Grades 9, 10, 11, 12 NR Credit: 0.5

This course will begin with an introduction to color theory. The painting media of watercolors, acrylics and oils will be explored as accompanying skills and techniques are developed. Composition techniques will be explored and emphasized in the painting process. Still life, natural subjects and landscape will provide subject matter.

PAINTING II

782 Grades 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Painting I

Students will continue to work with watercolors, acrylics, oils and mixed media. Students will be encouraged to develop their own personal styles of expression and their personal statements. Art history, aesthetics and criticism will be reinforced in classroom presentations.

SCULPTURE

775 Grades 9, 10, 11, 12 NR Credit: 0.5

Mass, scale, line, plane, space and movement, the basic elements of sculpture, will be used as students explore the unlimited possibilities for expression in three dimensional form and composition. Clay, plaster, wood, paper, wire, and balsa-foam are possible sculpting materials used in this course. Master sculptures and art history concerning three-dimensional art forms will be viewed and discussed through digital images and videos.

CERAMICS I

787 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is designed to allow students to explore a variety of ceramic processes and methods. Included in the

course are hand-building methods such as slab, coil and a pottery wheel. A creative and individual approach is encouraged to acquire skills and techniques necessary to produce ceramic objects. Glazing and advanced finishing processes will be introduced in this course.

CERAMICS II

788 Grades 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Ceramics I

This course is offered to ceramic artists who have succeeded in Ceramics I and wish to further their skills and techniques in the medium of clay, while being further introduced to throwing on the wheel. Alternate construction methods will be explored including a combination of hand building and wheel thrown pieces. Advanced skills and techniques in the glazing process will be emphasized. A creative and individualized approach will continue to be a focal point.

GRAPHIC DESIGN

776 Grades 9, 10, 11, 12 NR Credit: 0.5

Students will explore the universal art of Graphic Design including composition and image manipulation. Emphasis will be on using Adobe Photoshop to creatively demonstrate the elements and principles of design along with the effective use of technology, as a tool to communicate ideas visually.

AP DRAWING

768 Grades 11, 12 AP CR Credit: 1.0

This course is offered to the advanced art student who wishes to develop a portfolio for college or art school acceptance. Creative investigation of formal and conceptual issues of drawing will be explored. Drawing concepts and skills taught will include but are not limited to: light and shade; rendering of form; composition; surface manipulation; the illusion of depth and mark making. A strong emphasis will be placed on the development of the Quality, Concentration and Breadth sections of the portfolio. Critiques of students' artwork will be held weekly throughout the year. All art will be exhibited by studio art students at the end of the year. Students must receive permission from the art department and from guidance before election of this course.

AP 2-D ART AND DESIGN

765 Grades 11, 12 AP CR Credit: 1.0

This course is offered to the advanced art student who wishes to develop a portfolio for college or art school acceptance. Creative investigation of formal and conceptual issues of 2-D Design will be explored. Design concepts taught will include: unity, variety; balance, emphasis, contrast; rhythm; repetition; proportion, scale and figure-ground relationships. A strong emphasis will be placed on the development of the Quality, Concentration and Breadth sections of the portfolio. Critiques of students' artwork will be held weekly throughout the year. All art will be exhibited by studio art students at the end of the year. Students must receive permission from the art department and from guidance before election of this course.

AP 3-D ART AND DESIGN

764 Grades 11, 12 AP CR Credit: 1.0

This course is offered to the advanced art student who wishes to develop a portfolio for college or art school acceptance. Creative investigation of formal and conceptual issues of 3-D Design will be explored. Design concepts taught will include: unity, variety; balance, emphasis, contrast; rhythm; repetition; proportion, scale and figure-ground relationships. A strong emphasis will be placed on the development of the Quality, Concentration and Breadth sections of the portfolio. Critiques of students' artwork will be held weekly throughout the year. All art will be exhibited by studio art students at the end of the year. Students must receive permission from the art department and from guidance before election of this course.

PHOTOGRAPHY I

790 Grade 9, 10, 11, 12 NR Credit: 0.5

This course is designed to give the student an introduction into the world of photography. Special emphasis will be placed on the rules of design in photography for developing the skill of composition. Students will become efficient in the use of a DSLR (digital single lens reflex) camera, use of Adobe Photoshop CS6 software to enhance their photographs and mounting photographs for display. Photography critiques will be required for all submitted photographs. Weekly homework assignments will be given to supplement classroom learning. All materials are provided and loaner cameras are available to students throughout this course

PHOTOGRAPHY II

791 Grade 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Photography I

This course will be offered to those students who successfully completed Digital Photography I and learn advanced techniques which may include photo-montage, specific thematic units of study and computer manipulation of images. Students will continue to use DSLR (digital single lens reflex) cameras, the Adobe Photoshop CS6 software program and learn to professionally display their photographs. Photography critiques will be required for all submitted photographs. All materials are provided and loaner cameras are available to students throughout this course.

BUSINESS TECHNOLOGY

Students who are interested in various opportunities offered by today's business world should seriously consider enrolling in the business courses offered. By a serious application of time and a careful planning of courses, students will be prepared with the basic skills for further study in business or entry level jobs. Upon graduation, the business student may elect to enter a four-year liberal arts college specializing in business practices, accounting, etc., a two-year business training college, or a place of employment. The student may also be prepared for small business ownership.
In addition, the business curriculum includes a number of courses that provide all students with important skills and knowledge that can help them in their future lives as college students, citizens, consumers, and workers - general business, business law, and accounting.

INTRODUCTION TO BUSINESS

602 Grades 9, 10, 11, 12 NR Credit: 0.5

This course will introduce students to the exciting and challenging world of business. As the introductory course in the business curriculum, Introduction to Business is the first step toward a successful career in the business world. Through the information and activities presented in this class, students will become knowledgeable consumers, well –prepared employees, and effective citizens in the economy. This course will serve as a background for other business courses that students will take in high school and in college. It will also prepare students for future employment or business ownership and make them better informed citizens in an expanding international economy. Topics covered in this course include: Basic Economic Concepts; Business in the Global Economy; Business Organizations; Entrepreneurship and Small Business; Management and Leadership; Technology and Business; Business Ethics and Social Responsibility; Marketing; and more.

ACCOUNTING I

642 Grades 9, 10, 11, 12 NR Credit: 1.0

This course provides a basic understanding of the fundamentals of accounting, which involves the recording of financial information and the preparation of financial statements. Students will also find it useful because of the personal use information presented (checking, banking, investing in stocks, income tax preparation). Students will also have the opportunity to perform accounting operations on the microcomputer, complete workbook exercises which reinforce accounting principles, as well as complete business simulations.

ACCOUNTING II

646 Grades 10, 11, 12 CP CR Credit: 1.0
CCP646 Grades 10, 11, 12 CCP CR Credit: 1.0

College credit available (See guidance for details)
College Career Pathway

Prerequisite: Accounting I

This course provides students with the opportunity for in-depth study of accounting principles and procedures. A study of partnerships, corporations, stocks and bonds, taxes, banking, and inventory and depreciation procedures are included. Students will perform automated accounting operations and business simulations. Completion of this course will prepare students with job-entry skills for beginning accounting positions. Students will also be prepared for continued education in college accounting.

BUSINESS LAW

612 Grades 9, 10, 11, 12 NR Credit: 0.5

In this course, students will acquire the knowledge to function in everyday business dealings. Students will be able to function as well-informed consumers whose rights are protected by the legal system. Students will learn what their rights and duties are under the terms of an agreement, and when to seek legal advice or remedy if their rights are violated. Topics covered include: criminal law, civil law, contracts, consumer law, and laws relating to marriage, renting an apartment and various types of insurance. Students will learn to resolve conflicts through the use of case problem solving, viewing actual court proceedings, conducting a mock trial, and researching and reporting on various business law topics.

ENTREPRENEURSHIP

600 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is designed to help students acquire an understanding of the nature of small business and what it takes to be a successful entrepreneur. They will learn how to develop a business plan, marketing and pricing strategies, financial plans, and record keeping systems. In addition, they will learn sources of government assistance, legal requirements for running a business, and working with people in business.

PERSONAL FINANCE

603 Grades 9, 10, 11, 12 NR Credit: 0.5
CCP603 Grades 9, 10, 11, 12 CCP CR Credit: 0.5

College credit available (See guidance for details)
College Career Pathway

This course is designed to inform students how individual choices directly influence occupational goals and future earnings potential. Students will be exposed to the following topics: income and careers; money management; credit and debt management; planning, saving, and investing; becoming a critical consumer; and risk management and insurance. Students will design personal and household budgets; simulate the use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a

foundational understanding for making informed personal financial decisions and will empower students to recognize outcomes that promote financial independence.

BUSINESS MARKETING

604 Grades 9, 10, 11, 12 NR Credit: 0.5

This course will show the student what marketing is and how it affects the average person by developing, promoting, and distributing products to satisfy a customer's wants and needs. This course will emphasize the marketing features of the sports and entertainment fields. The areas of marketing the student will cover include marketing concepts, target markets, demographic areas, and financial impact of marketing, advertisements, product promotion, and marketing careers.

SPORTS MANAGEMENT

615 Grades 9, 10, 11, 12 NR Credit: 0.5

This unique and innovative course is designed for students with an interest in the sports and entertainment industry. In this course, students will study marketing principles, concepts related to the sports and entertainment industry, and learn about the career possibilities that are currently available. Other instructional areas that students will learn about will include: marketing research, economics, endorsements, event execution, decision making, event marketing, advertising and promotion, and legal aspects/contracts. In addition, students will learn why advertising, sales, and communications are of particular importance in this industry. Classroom instruction will be reinforced through the use of case studies, possible field trip experiences, current periodicals, computer simulations, projects, and lecture/discussions.

COMPUTER SCIENCE

COMPUTER SCIENCE

284 Grades 9, 10, 11, 12 NR Credit: 1.0

Prerequisite: Algebra I (Not to be taken after AP CSP or AP CSA)

This introductory course is designed for students who are new to programming and computer science. The course focuses on the development of problem solving strategies, software design, and the foundations of computer science. Students will learn how to write computer programs using Python.

AP COMPUTER SCIENCE PRINCIPLES

285 Grade 10 , 11, 12 AP CR Credit: 1.0

Prerequisite: Algebra I required, Algebra II recommended

AP Computer Science Principles is centered on several big ideas including creativity, abstraction, data and information, algorithms, programming, the internet, and global impact. The course emphasizes computational thinking. Students will connect computing to other disciplines, create computational artifacts and communicate their purpose, develop models to solve problems, and learn to work effectively as part of a team. The course will prepare students for the AP exam through course assessments that ask students to explore the implications of computing innovations and create a computer application.

AP COMPUTER SCIENCE A

286 Grades 10, 11, 12 AP CR Credit: 1.0

Prerequisite: Algebra II, basic knowledge of computer programming

AP Computer Science A will provide students the opportunity to design and implement computer programs to solve real world problems related to art, media, and engineering. The course teaches object oriented programming through the use of the Java programming language and is meant to be the equivalent of a first semester of a college level computer science course. It emphasizes problem solving and algorithm development and uses hands-on experiences and examples. Topics include problem solving, design strategies and methodologies, organization of data, approaches to processing data, analysis of potential solutions, and ethical and social implications of computing.

DRONE PILOT CERTIFICATION

000376 Grades 11, 12 NR Credit: 1.0

Drones are currently utilized in the following career fields: commercial photography/ videography, meteorology, military, law enforcement, cartography, disaster relief, agriculture, search and rescue, construction, and utility inspection. Anyone piloting a drone for a commercial purpose is required to have an FAA license to do so. This course will in part prepare students for the FAA Part 107 Drone Pilot exam (to be taken outside of school at an FAA testing site). Math and programming applications related to the certification test required to successfully pass the exam are the focus of this course, and not limited to inequalities, unit conversion, applying vector forces, reading aeronautical charts, GPS mapping, image processing, and interpreting METAR weather reports.

The English Department is dedicated to preparing capable students who have fluent and articulate 21st century skills in reading, writing, speaking, and listening. Our students will be able to read and comprehend literature (including stories, dramas, and poems) and literary nonfiction at grade appropriate text complexity. They will be able to draw evidence from literary or informational texts to support analysis, reflection, and research. They will be able to produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience. In addition, Lyman students will be able to initiate and participate effectively in a range of collaborative discussions with diverse partners on grade appropriate topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Students in grades 10-12 must take one semester of a Writing Lab and one semester of a Reading Course. Students in grades 11 and 12 may take AP English in place of the two semester courses.

ENGLISH 9

110 Grade 9 H CR Credit: 1.0

This course provides a challenging and rigorous introduction to the English Honors program to further develop cognitive ability and skills with the goal of becoming advanced readers, writers, listeners, and speakers. This arduous course is a survey of various types of literature including, but not limited to, nonfiction, poetry, drama, mythology, the short story, and the novel. Students will continue to refine both written and oral communication and vocabulary and sound communication mechanics will be studied on a continual basis. Students will be expected to participate in class discussions, respond to numerous writing-to-learn activities, deliver several oral presentations throughout the year and maintain high levels of integrity. Required independent supplemental readings and essays will accompany each unit studied. A formal research paper, focusing implicitly on the writing process, will also be introduced. A major goal of this course is to improve the following: reading comprehension, writing, listening, oration, time-management, self-efficacy and self-discipline.

ENGLISH 9

111 Grade 9 CP CR Credit: 1.0

The focus of this course is a study of literary genres (types) including, but not limited to, the short story, the novel, the epic, drama, and poetry. This study will be guided through the use of the anthology and selected outside material. Students will continue the development of effective skills in both oral and written communication by presenting ideas in an organized and clear manner, by presenting accurate and substantive content to justify conclusions, and by demonstrating an awareness of appropriate communication skills based on the intended audience. In writing, the development of composition skills will be emphasized

ENGLISH LANGUAGE AND COMPOSITION

135 Grade 11 AP CR Credit: 1.0

College credit available - (See guidance for details)

This course is designed for students who have proficiency in reading and writing. The course will stress an awareness of writing as a craft, and the key to success will lie in the student's competence in recognizing, evaluating, and writing expository and argumentative prose. The range of reading will include selections from essayists, critics and biographers in addition to fiction writers. Students are expected to take the national test in Advanced Placement English (Language and Composition) in May and may earn college credits in English in the process.

ENGLISH LITERATURE AND COMPOSITION

140 Grade 12 AP CR Credit: 1.0

Prerequisite: English Language and Composition

Advanced Placement in English is offered for academically oriented, college-bound seniors. It is a demanding course with emphasis on extensive reading and writing synthesis and articulation. The aim of the course is to acquaint students with major works of British and World Literature, to train students in critical analysis, and to familiarize students with the dynamics of poetry, the essay and drama. College credit can be obtained by passing the AP test (English Literature and Composition).

WRITING LABS

WRITING LAB 10

137 Grade 10 H CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 10 will build on the persuasive essay writing skills they developed in grade 9, with a focus on the use of rhetorical devices and summary versus analysis. Students will also write process analysis essays, illustration essays, researched informative essays, and narratives. The study of vocabulary and grammar will be ongoing, with a focus on developing style appropriate to the subject matter, purpose, and audience.

WRITING LAB 10

138 Grade 10 CP CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 10 will build on the persuasive essay writing skills they developed in grade 9, with a focus on the use of rhetorical devices and summary versus analysis. Students will also write process analysis essays, illustration essays, researched informative essays, and narratives. The study of vocabulary and grammar will be ongoing, with a focus on developing style appropriate to the subject matter, purpose, and audience.

WRITING LAB 11

145 Grade 11 H CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 11 will continue to develop their writing as they work through multiple drafts and prepare their work for specific purposes and authentic audiences. Students will write researched argumentative essays, narratives, cause and effect essays, compare and contrast essays, and more. Grammar and vocabulary will continue to be studied as students develop their own writing style. Additionally, students will prepare initial college essays, resumes, and cover letters.

WRITING LAB 11

129 Grade 11 CP CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 11 will continue to develop their writing as they work through multiple drafts and prepare their work for specific purposes and authentic audiences. Students will write researched argumentative essays, narratives, compare and contrast essays, and more. Grammar and vocabulary will continue to be studied as students develop their own writing style. Additionally, students will prepare initial college essays, resumes, and cover letters.

WRITING LAB 12

180A Grade 12 H CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 12 will finalize college essays, resumes, and cover letters. Students will write personal narratives, persuasive essays, editorials, and reflective pieces that respond to current events. Grammar and vocabulary will continue to be studied as students refine their own writing style and demonstrate proficiency in writing for a range of tasks, purposes, and audiences. Students will develop editing techniques to revise their own work.

WRITING LAB 12

181 Grade 12 CP CR Credit: 0.5

All Writing Labs will focus on the ELA Connecticut Core Standards for writing and language. Students in grade 12 will finalize college essays, resumes, and cover letters. Students will write personal narratives, persuasive essays, editorials, and reflective pieces that respond to current events. Grammar and vocabulary will continue to be studied as students refine their own writing style and demonstrate proficiency in writing for a range of tasks, purposes, and audiences. Students will also use graphic organizers and editing checklists to revise their work.

READING COURSES

DRAMA

158A Grades 10, 11, 12 H Credit: 0.5
157 Grades 10, 11, 12 CP Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. Students in Drama will be expected to take parts as plays are read out loud and, at times, performed in this course. Students will gain a better understanding of and an appreciation for classic and modern drama as they also read playwright biographies, reviews of performances, and learn about the history of dramatic theatre leading up to today. Students will develop an understanding of how drama addresses the eternal question of what it means to be human as they read, watch, and listen to works that are representative of the universal human experience, including voices that are typically marginally recognized in the classroom.

GRAPHIC NOVELS

156 Grades 10, 11, 12 H Credit: 0.5
161 Grades 10, 11, 12 CP Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. The first stories ever recorded by humans were told with pictures on cave walls. The first stories we ever read had pictures; those are often the books we remember. When the comic book grew up, the graphic novel was born. Stories with pictures were taken seriously again: one was taken seriously enough to win a Pulitzer. In this course, students will read fiction, memoirs, classic adaptations, and dramas…all with pictures. Students will explore the symbiosis of the written word and visual images, and how this can enhance the telling of various genres. Students will complete written, oral, and illustrated literary analysis and synthesis.

HEROES AND MONSTERS

163 Grades 10, 11, 12 H Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. The Heroes and Monsters course focuses on the hero and the hero's journey as well as what makes a monster, or villain, so bad. Students will read, learn about, and analyze classic and modern stories that feature heroes and monsters. Students

will explore the trials and triumphs of characters who face the challenges of supernatural monsters, ethics, and human morality. Students analyze and discuss how heroes experience both courage and weakness when tested by external and internal "monsters." Students will also examine cultural and historical influences on authors as well as trace the development of the English language over time.

HEROES AND MONSTERS

164 Grades 10, 11, 12 CP Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. The Heroes and Monsters course focuses on the hero and the hero's journey as well as what makes a monster, or villain, so bad. Students will read, learn about, and analyze classic and modern stories that feature heroes and monsters. Students will explore the trials and triumphs of characters who face the challenges of supernatural monsters, ethics, and human morality. Students will analyze and discuss how heroes experience both courage and weakness when tested by external and internal "monsters."

MYTHS AND LEGENDS

149 Grades 10, 11, 12 H Credit: 0.5
146 Grades 10, 11, 12 CP Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. The Myths and Legends course gives the student an opportunity to read and appreciate myths and legends from a variety of different cultures, civilizations, and time periods. These stories provide insight into the beliefs, values, and cultural practices of ancient societies and give us context into our world. An important element of the course will be an appreciation of the relationship between the myths and legends and the people who created them. This study will allow the class to have a deeper understanding of the human condition. This class will entail a robust reading of material, at a faster pace than CP. This course will explore beyond the Greek and Roman mythology unit explored in grade 9 English.

NATURE AND ANIMALS IN LITERATURE

160A Grades 10, 11, 12 H Credit: 0.5
182 Grades 10, 11, 12 CP Credit: 0.5

All reading courses will focus on the ELA Connecticut Core Standards for reading, speaking, and listening. The Nature and Animals in Literature course has a great variety of literature including short stories, poems, novels, journals, essays, memoirs, comic strips, and more. Each piece of writing will have one thing in common: the focus is on nature and/or animals. In this class students will explore how nature and animals are portrayed in literature and what that reveals about mankind. Most reading will be assigned to the entire class, but students will also complete one independent reading project each quarter. These projects will be tailored to the student's particular interests (eg: cows, crickets, hurricanes) and can be creatively presented.

SCIENCE FICTION LITERATURE

HSciF Grades 10, 11, 12 H Credit: 0.5
CPSciF Grades 10, 11, 12 CP Credit: 0.5

This course invites students to examine classic and contemporary science fiction texts that explore how technology, society, and human ambition intersect. Students will analyze big questions about responsibility, power, curiosity, and what it means to be human in a rapidly changing world. Through close reading, discussion, and project-based learning, students will explore how literature can help us grapple with the hopes, fears, and ethical challenges surrounding technology today. The course emphasizes critical thinking, textual analysis, and real-world connections, providing a rigorous and engaging exploration of speculative fiction. All reading courses align with the ELA Connecticut Core Standards for reading, speaking, and listening.

ENGLISH ELECTIVES

YEARBOOK

800 Grades 9, 10, 11, 12 CP CR Credit: 1.0

Students will learn the basics of producing a school yearbook. Included will be organization of yearbook staff, book structure, deadline scheduling, design, reporting, photography and layout, laws and ethics of publication, technology related to production, budgeting, marketing, and advertising. It is expected that students will produce the school yearbook.

YEARBOOK II

803 Grades 11, 12 H CR Credit: 1.0

Prerequisite: Yearbook I

This course is run concurrently with Yearbook I. Students will work together with those in Yearbook I to produce the school yearbook. They will be expected to fulfill roles of higher responsibility as editors and other supervisory positions. They will be expected to help with the yearbook's layout, assist others and oversee the overall production of the yearbook.

SPORTS IN LITERATURE

166 Grades 10, 11, 12 H CR Credit: 0.5
167 Grades 10, 11, 12 CP CR Credit: 0.5

Sports in Literature will explore the cultural, social, and human aspects of sports through literary texts, examining themes like competition, identity, and community, often using contemporary authors, essays, and media to understand sports' compelling nature in society. These courses teach literary analysis, critical thinking, and

writing skills, using diverse genres to analyze sport's reflection of human nature. Students will also explore current events around the sporting world, both regionally and abroad.

JOURNALISM I

151 Grades 9, 10, 11, 12 CP CR Credit: 0.5

Journalism I (CP) is a semester or full-year course offered concurrently to selected freshmen, sophomores, juniors, and seniors who have demonstrated strong aptitude in writing and/or design. Students receive hands-on instruction in all aspects of the publication process and contribute to the production of The Bulldog, the school newspaper, while upholding the high standards of the publication staff.

JOURNALISM II

148 Grades 9, 10, 11, 12 H CR Credit: 0.5

Students enrolled in Journalism II (Honors) assume increased responsibility, including editorial roles, and receive honors credit. This course fulfills elective credit requirements and does not count toward English credit.

FAMILY AND CONSUMER SCIENCES

The Family and Consumer Sciences program is designed to meet the needs and interest of all students in their present and future dual roles as family members and wage earners. The course offerings are all electives, and represent an integrated program made up of the many varied interest areas and levels within the field of Family and Consumer Sciences. Related careers are introduced throughout all the courses offered in the Family and Consumer Sciences Department.

FOODS & NUTRITION I

822 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is offered in the Fall.

Foods and Nutrition I is a basic introductory course teaching the fundamentals of food preparation and choosing nutritious foods. Nutrients in foods, cooking techniques and preparation skills will be emphasized. Practical kitchen lab experiences will be combined with traditional classroom activities, with students working individually and in groups. Topics include safety and sanitation, nutritional needs, food choices and weight management, consumer decision making, using recipes effectively within time and energy constraints, and preparing a variety of foods. Various breakfast foods will be the major meal focus of this course.

FOODS & NUTRITION II

832 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is offered in the Spring.

Prerequisite: Foods & Nutrition I

This course is a continuation of the exploration of Food and Nutrition I. In this class we will concentrate on preparing more varied food items, complete meal planning and preparation, shopping for food, utilizing more advanced equipment and analyzing careers in the food industry. Practical kitchen lab experiences will be combined with traditional classroom activities. Students will be allowed to use their own creativity to generate individual projects. The semester will conclude with individual student demonstrations.

FOOD SERVICE

843 Grades 11, 12 CR Credit: 1.0
841 Grades 11, 12 CR Credit: 0.5

This course is offered in the Spring (when only running Credit: 0.5 class).

Prerequisites: Foods and Nutrition I and II

This advanced level course is an extension of Foods and Nutrition I and II. This course is for students interested in establishing a career in the food industry. For those enrolled in the College Career Pathways Program, college credit may be earned through Three Rivers Community Technical College if a grade of 'B' or above is maintained. The main focus of this course is quantity food preparation and international foods. We will explore the eating habits and diverse customs from several countries around the world as well as prepare foods native to those countries. Students will research and demonstrate a recipe from a country of their choosing and be allowed to use their own creativity to generate individual projects.

CHILD DEVELOPMENT I

852 Grades 9, 10, 11, 12 NR Credit: 0.5

In this course we will explore the important adult role of parent and caregiver, and the development of children to age 6. Students will become aware of the responsibilities of parenthood and analyze how to make wise decisions pertaining to their own family and future. We will investigate the different types of families, effective parenting skills, how to guide children's behavior, teen pregnancy, child abuse and neglect, prenatal development, birth, and the new born.

CHILD DEVELOPMENT II

852 Grades 9, 10, 11, 12 NR Credit: 0.5

This course is a continuation of the exploration of Child Development I. In this class students will evaluate the developmental stages of childhood to a greater extent, which will help them to better understand the important role that children and families have in society. We will further explore the different types of families, effective parenting skills, teen pregnancy, child abuse and neglect, prenatal development, birth, and the newborn. Learning models and the multiple roles in the early education profession will also be introduced.

TEACHING OUR CHILDREN

851 Grades 10, 11, 12 CP CR Credit: 1.0
Credit: 0.5

Prerequisite: Child Development I and II

This advanced level course is an extension of Child Development I and II. This course is for students interested in establishing a career in early childhood education. Students will apply their knowledge from Child Development I and II while participating at a local child care center. Students will observe and teach groups of young children and participate in classroom discussions on their experiences. Students are expected to keep a journal of their experiences outside of the classroom throughout the duration of the class. Students must have available transportation to participate in this course.

NUTRITION FOR SPORT AND EXERCISE

000857 Grades 10, 11, 12 CR Credit: 0.5

Prerequisites: Foods and Nutrition I and II

The content in this course is an extension of the information learned in Food and Nutrition I and Food and Nutrition II with a concentration on how food affects athletic performance and how it influences activity and energy level. It focuses on the connections among exercise,

nutrition, peak performance, and health. It is a course specifically for student athletes and any students interested in increasing their knowledge of nutrition and how it relates to physical activity. Practical kitchen lab experiences will be combined with traditional classroom activities.

MATHEMATICS

The courses in mathematics aim to develop a student's critical thinking and problem solving skills. Students will develop an understanding of fundamental math concepts, become proficient in mathematical skills and procedures, and demonstrate accuracy in their ability to solve real world problems. Lyman's goals reflect the importance of mathematical literacy and problem solving. For this reason the following goals are the goals of all math courses.

All students will:
1. Learn to value mathematics
2. Become confident in their ability to do mathematics
3. Learn to communicate mathematically
4. Learn to reason mathematically
5. Learn to work independently and collaboratively to produce and create academic work (Productivity)
6. Apply the processes of analysis and evaluation to solve problems (Problem Solving)
7. Demonstrate personal responsibility, cultural appreciation, and appropriate respectful behavior (Character)
8. Use technology to problem solve

ALGEBRA I

210 Grade 9 H CR Credit: 1.0

Algebra I Honors begins a rigorous program of study where students will increase their knowledge and understanding of mathematical ideas and concepts, and have the ability to solve problems within mathematics and other subject areas as well as the outside world. Students will have the ability to reason and think critically, and use mathematical tools and techniques in order to communicate mathematically. Topics include: linear equations and inequalities, functions, linear functions, scatter plots and trend lines, systems of linear equations, exponential functions, and quadratic functions. Performance tasks and real world applications are integrated throughout the course.

ALGEBRA I

211 Grade 9 CP CR Credit: 1.0

This course begins a program of study in mathematics where students will gain the knowledge and understanding of mathematical procedures and concepts, as well as increase their ability to think critically in order to solve real world problems. Topics include: linear equations and inequalities, functions, linear functions, scatter plots and trend lines, systems of linear equations, exponential functions, and quadratic functions. Performance tasks and real world applications are incorporated throughout the course.

ALGEBRA II

220 Grades 9, 10, 11 H CR Credit: 1.0

Prerequisite: Algebra I

This course is a rigorous course in Algebra II with an emphasis on mathematical reasoning and structure, and relations and functions. Some topics include: quadratic functions, polynomials, properties of exponents, radical functions, rational functions, exponential functions, logarithmic functions, and trigonometry. Graphing calculators will be utilized. It is recommended that students have their own TI-84 graphing calculator for home use. Performance tasks and real world applications are included throughout the course.

ALGEBRA II

221 Grades 9, 10, 11 CP CR Credit: 1.0

Prerequisite: Algebra I

This course is a logical extension of Algebra I and prepares students to use advanced algebra skills and concepts. Some topics include: quadratic functions, polynomials, properties of exponents, radical functions, rational functions, exponential functions, logarithmic functions, and trigonometry. Graphing calculators will be utilized. Performance tasks and real world applications are included throughout the course.

GEOMETRY

230 Grades 9, 10, 11 H CR Credit: 1.0

Prerequisite: Algebra I

This comprehensive course in Euclidean Geometry includes higher level deductive and inductive reasoning to understand and show geometric relationships. A theoretical and a discovery approach including proofs will be utilized. Students will be expected to work both independently and within cooperative learning groups. Performance tasks and real world applications are included throughout the course. Course topics include: transformations, congruence, constructions, polygons, similarity, trigonometry, circles, 3D spatial reasoning, surface area, and volume.

GEOMETRY

231 Grade 9, 10, 11 CP CR Credit: 1.0

Prerequisite: Algebra I

This course in Euclidean Geometry includes deductive and inductive reasoning to understand and show geometric relationships. A guided theoretical and discovery approach including basic proofs will be utilized. Students will be expected to work both independently and within cooperative learning groups. Performance tasks and real world applications are included throughout the course. Course topics include: transformations, congruence, constructions, polygons, similarity, trigonometry, circles, 3D spatial reasoning, surface area, and volume.

PRECALCULUS

250A Grades 11, 12 H CR Credit: 1.0
Prerequisite: Algebra II
Precalculus will extend the topics and concepts learned in Algebra and Geometry. Topics include: advanced algebraic techniques, rational functions, transcendental functions, and conic sections. Theoretical, practical, and graphical approaches to problems will be utilized throughout the course. Because this course requires significant work in class and at home, it is recommended that students have their own TI-84 graphing calculator for home use. **Completion of summer work is required.**

PRECALCULUS

251 Grades 11, 12 CP CR Credit: 1.0
Prerequisite: Algebra II
Precalculus will extend the topics and concepts learned in Algebra and Geometry by establishing relationships of algebra, trigonometry, and analytic geometry. Because this course requires significant work in class and at home, it is recommended that students have their own TI-84 graphing calculator for home use.

PRECALCULUS

0AP250 Grades 11, 12 AP CR Credit: 1.0
Prerequisite: Algebra II
In AP Precalculus, students explore everyday situations using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for thriving in an ever-changing world.

AP Precalculus prepares students for other higher-level mathematics and science courses. The framework delineates content and skills common to college precalculus courses that are foundational for careers in mathematics, physics, biology, health science, social science, and data science.

ADVANCED ALGEBRA & FINANCIAL APPLICATIONS

200 Grades 11, 12 NR Credit: 1.0
Advanced Algebra & Financial Applications is a course that will use mathematics to provide students with the tools to become financially responsible young adults. The course employs various mathematical concepts to solve financial problems that occur in everyday life. Real-world problems in investing, credit, banking, auto insurance, mortgages, employment, income taxes, budgeting and planning for retirement are solved by applying the relevant mathematics.

AP STATISTICS

241 Grades 11, 12 AP CR Credit: 1.0
College credit available - (See guidance for details)
Prerequisite: Algebra II
This course is equivalent to a one-semester, introductory, non-calculus based college course in statistics. Topics include: probability, distributions, data analysis and representations, experimental design, and inference. Because this course requires significant work in class and at home, it is recommended that students have their own TI-84 graphing calculator for home use. At least one statistics course is typically required for college majors such as engineering, psychology, sociology, health science, and business. **Completion of summer work is required.**

PROBABILITY AND STATISTICS

233 Grades 11, 12 CP CR Credit: 1.0
This course introduces the basic concepts of probability and statistics as they apply to real world situations. The topics include: tree diagrams, venn diagrams, independence, conditional probability, displaying quantitative and qualitative data, methods of summarizing data, measures of central tendency and dispersion, correlation, linear regression, empirical rule, binomial, geometric, and normal distributions, sampling methods, hypothesis testing, and confidence intervals.

MATHEMATICS FOR MACHINE TECHNOLOGY

000266 Grade 12 NR Credit: 1.0
This course is for students looking to enter a technical field, skilled trade, or the Eastern CT Manufacturing Pipeline. This course stresses mathematical concepts from general arithmetic, to oblique geometry, compound angles, and numerical control. Students will be provided with the mathematical skills and practice that students and apprentices will use on the job in today's machine trades and manufacturing fields. This course combines math concepts with relevant machine applications, using industry-specific examples, realistic illustrations, and actual machine applications. **Not approved for NCAA**

CALCULUS AB

261 Grades 10, 11, 12 AP CR Credit: 1.0
College credit available - (See guidance for details)
Prerequisite: Precalculus
This course includes a full year of Calculus and is equivalent to one semester of Calculus at the college level. It will span what is normally considered Calculus I. Topics include: functions, limits, differentiation, applications of differentiation, integration, and applications of integration. Because this course requires significant work in class and at home, it is recommended that students have their own TI-84 graphing calculator for home use. **Completion of summer work is required.**

CALCULUS BC

263 Grade 12 AP CR Credit: 1.0

College credit available - (See guidance for details)

Prerequisite: Calculus AB

This course progresses naturally from Calculus AB and is comparable to Calculus 2.

MUSIC AND THEATRE ARTS

The Music Department offers courses in music theory and musical theatre as well as opportunities in vocal and instrumental study. The concert band and concert chorus are the major performing groups. Extracurricular music activities include Senior High Jazz Band or Pit Band for school sponsored musicals.

The goal of the music program is to enhance the students' enjoyment and appreciation of music by improving their musical literacy and knowledge. Students should grow in their understanding of the elements of music, music theory and music in our culture. Instrumental, choral, and theater students may be scheduled for individual or small group lessons in addition to chorus and band classes and will be required to attend full chorus and band rehearsals in the evening twice a month.

CONCERT BAND

871 Grades 9, 10, 11, 12 NR Credit: 1.0
878 Grades 9, 10, 11, 12 NR Credit: 0.5

Concert Band is a regularly scheduled class as well as a major school performing group. Students are provided the opportunity to study music of all styles and periods, including popular as well as traditional forms. Emphasis is on understanding the composer's expressive intent, effectively communicating that intent, and striving for the highest standards of musicianship possible at this level. Activities include several performances during the year, occasional field trips, and sponsorship of other social and musical events.

CONCERT CHORUS

872 Grades 9, 10, 11, 12 NR Credit: 1.0

Chorus is a regularly scheduled academic class focusing on choral singing and is a major school performing group. Students are provided the opportunity to study music of all styles and periods, including popular as well as traditional forms. Emphasis is on understanding the composer's expressive intent, effectively communicating that intent, and on striving for the highest standards of musicianship possible at this level. Activities include several performances during the year, occasional field trips, and sponsorship of other social and musical events.

CONTEMPORARY ENSEMBLE

879 Grades 9, 10, 11, 12 NR Credit: 1.0

Students must have an instructor consent signature before signing up for this course. New students to the course will be asked to audition for the course.

This is a course that focuses on the electric guitar, electric bass, keyboard, and drum set. It will be geared toward experienced players (not beginners). The ability to read music is helpful but not necessary. We will focus on playing different styles of 20th Century Jazz/Rock music, etc. We will study equipment and maintenance. Out of school performances will be held and attendance will be mandatory. Maximum of 10 students

THEATER ARTS

882 Grades 9, 10, 11, 12 NR Credit: 0.5

This is a course that focuses on the technical and performance aspects of play production with our goal being the performance of a full-length play. Students will be involved in all aspects of theater production including acting, costumes, scenery, sound, and lighting. All students taking this course must perform in the play selected. The play will be performed at least two evenings on the Lyman Memorial High School stage. Open to grade 9 by permission of the instructor only.

WORLD MUSIC

893 Grades 9, 10, 11, 12 NR Credit: 0.5

World Music is a music class that is non-performance based. Students will learn about cultures around the globe and their rich cultural and musical history. They will have opportunities to learn authentic musical literature from other countries, and will be exposed to many different aspects of music, including but not limited to world instruments, singing and movement. No previous music experience required, this class is ideal for students who like music and learning about music but are not necessarily interested in performing.

MUSIC TECHNOLOGY

869 Grades 9, 10, 11, 12 NR Credit: 0.5

Students will learn to use several music software programs including Garageband and iMovie. Students will learn to compose, edit, and mix their own music through a wide variety of projects, including video. This is a project based, student centered class and students must be able to work independently and with self-direction. No prior knowledge of computer music, sound engineering or instrumental/choir experience needed. Students are expected to be respectful of the expensive equipment they will use.

MUSICAL THEATRE

894 Grades 9, 10, 11, 12 NR Credit: 0.5

This is a course for students interested in furthering their theatre education in a more academic capacity. It focuses primarily on acting through singing, but students will learn about all aspects of the theatre and putting on a production, including but not limited to, acting, directing, history of musical theatre, lights and technique and backstage leadership. They will learn about how to prepare for an audition and detailed score and character

study. There are no prerequisites, and students of all ages, skill levels, and abilities are welcome.

SELECT CHORUS

895 Grades 10, 11, 12 NR Credit: 1.0

Select Chorus is a regularly scheduled academic class focusing on choral singing and is a major school performing group. Students are provided the opportunity to study music of all styles and periods, including popular as well as traditional forms. Emphasis is on understanding the composer's expressive intent, effectively communicating that intent, and on striving for the highest standards of musicianship possible at this level. Select Chorus will delve further into the details of music and vocal technique, and provides students with the opportunity to sing more challenging repertoire. Activities include several performances during the year, occasional field trips, and sponsorship of other social and musical events. Students accepted into Select Chorus will be required to participate in at least one festival during the year. **It is an auditioned ensemble. Students must pass a sight singing test, and perform a vocal audition in order to sign up for the class.**

PHYSICAL EDUCATION & HEALTH

PHYSICAL EDUCATION

921 Grades 9, 10, 11, 12 CP CR Credit: 0.5

The senior high physical education program will provide both lifetime and team activities in a series of mini-units to further develop one's motor skills and overall physical fitness. The program's major emphasis will be to develop lifetime skills which have a carryover value for adult life. Students will be challenged through a diverse program of activities which will assist in their decision-making process toward a healthy, active, and productive lifestyle.

WEIGHT LIFTING/RESISTANCE TRAINING

924 Grades 9, 10, 11, 12 NR Credit: 0.5

This physical education course is designed to develop fitness strength through weight training. Students will learn basic weight training techniques using free weights while following a specific designed program. The student will be able to design and implement their own weight training program for future use after taking this class. There will also be a focus on the path of becoming a certified personal trainer.

CAREERS IN SPORTS

923 Grades 9, 10, 11, 12 NR Credit: 0.5

This course will help expose students to careers in the world of sports. Careers in coaching, officiating, recreation, athletic training, director of athletics, broadcasting, sports journalism and personal training will be taught.

HEALTH EDUCATION

931 Grade 9 CP CR Credit: 0.5

Health Education is a prevention course that focuses on four areas of health education: physical, emotional, and social wellness; human sexuality; disease prevention; and substance abuse prevention. The Health Education curriculum is closely coordinated with the other prevention programs within the school as well as the school's developmental guidance program. Health Education is a serious academic course concerned with knowledge, behavior, attitudes and values of the total maturing student. Emphasis will be placed on the student's role in taking responsibility for his/her own health through prevention and informed decision making. Students will explore topics which are relevant to their lives today and in the near future. Course content will assist students in reaching optimum physical and emotional health for the betterment of self, family, and community. Health Education is structured to permit and encourage personal involvement and significant self-examination. The student will be evaluated through a combination of individual and group class projects, class participation, and teacher-prepared tests.

HEALTH EDUCATION 2

932 Grade 11, 12 CP CR Credit: 0.5

During the half year course students will apply their knowledge and skills learned in Health I to examine the impact of one's behavior and how the behaviors of others influence one's life. Topics of study include: conflict resolution, anger management, and violence prevention; abuse of prescription medications and drug intervention; the importance of building healthy relationships, identifying abusive relationships, and sexual harassment; pregnancy and childbirth. Students will also synthesize the knowledge and skills learned in Health I, to examine physical, mental, and social health in a global context. Students will explore the effect of drugs on society, the impact of media/internet of sexual decision-making; utilize reliable, valid health resources to develop personalized fitness and eating plans; as well as acquire basic information on first aid and safety.

LIFETIME FITNESS & EXERCISE

910 Grade 9, 10 ,11 ,12 NR Credit: 0.5

This physical education course will introduce students to lower-impact activities that require minimal equipment and can be participated in and sustained throughout adulthood. Students will engage in a minimum of yoga, pilates, walking and hiking for fitness, core exercises and development, and tai chi. The students will be able to lead their peers in a yoga sequence they design and develop a plan for lifetime physical activity using the activities learned in this course.

ECE KINESIOLOGY 1100: EXERCISE AND WELLNESS FOR EVERYONE

ECE934 Grade 11 ,12 ECE Credit: 0.5

Prerequisite: Health I

Overview of the five pillars of health (exercise, nutrition, sleep, stress and relationships); role of exercise in health promotion and disease prevention across the lifespan; impacts of exercise in leisure time, culture, community, careers and the workplace. **THIS COURSE COUNTS TOWARDS HEALTH II.**

SCIENCE

The school recognizes that, in this time of scientific advancement, it has an obligation to provide a program that will challenge all students. The objectives of the science program are to develop desirable attitudes toward science, understanding of the role of science in everyday life, knowledge of scientific tools and methods, and application of major scientific principles. All science courses currently offered are lab courses.

Lyman Memorial High School accepts students from many sending towns. As a result, freshmen come to Lyman with varied backgrounds, abilities, and experiences. Despite these differences, all students must complete 3 credits of science and take the SAT and the Next Generation Science Standards (NGSS) assessments during their junior year for graduation. Some science classes recommend specific types of prior knowledge to ensure that students will be better prepared for these courses. For example, Physics students should have a thorough understanding of Algebra, Geometry, and a strong foundation in Physical Science; Anatomy students have a strong foundation in Biology.
Physical Science is the recommended course for incoming freshmen because it:
A. Presents a challenging science curriculum through the use of rigorous inquiry-based investigations, higher order questioning strategies, and critical thinking skills.
B. Serves as a foundation for future secondary science courses. Many of the prerequisite skills and concepts for Biology, Chemistry, and Physics are taught in Physical Science
C. Ensures that all students will have consistent and thorough preparation prior to the state-mandated NGSS assessment in the spring of their junior year.
D. Provides ample opportunity for students to develop written communication skills (i.e., research writing, reaction papers, lab reports).
E. Presents curricula through the use of thematic units that emphasize and link major concepts.

In order for all students to have an opportunity to learn all the performance expectations identified in the NGSS prior to the state assessment given in the Spring of student's junior year, the following sequence of courses is highly recommended:

Either **NGSS Sequence I or NGSS Sequence II**

NGSS Sequence I	NGSS Sequence II
Gr. 9 - Physical Science (CP, Honors)	Gr. 9-Biology (Honors only)
Gr. 10-Biology (CP, Honors)	Gr. 10-Chemistry (AP, Honors)
Gr. 11-Chemistry (CP, Honors, AP)	Gr.11-Physics (AP, Honors)
Gr. 12-CP/ Honors Elective	Gr.12-AP/ Honors Elective

ANATOMY AND PHYSIOLOGY

350 Grades 11, 12 H CR Credit: 1.0

Recommendation: Biology Credit
Honors level Anatomy and Physiology is offered for highly motivated, academically oriented Juniors and Seniors. This course applies scientific principles, and emphasizes the integrated nature of Anatomy (Structure) and Physiology (Function). Major topics will include an introduction to anatomical terminology, research, and methodology, radiographic anatomy, cytology, histology, systems of the body, comparative anatomy, developmental anatomy, pathology, metabolism, and homeostatic mechanisms of the body. Students will be required to do an independent research project (experiment), along with a research paper. Other assessments will include tests, quizzes, laboratory write-ups, projects, and classroom presentations.

BIOLOGY

320 Grades 9, 10 H CR Credit: 1.0

Recommendation: Strong Physical Science skills
Honors level Biology is offered for highly motivated, academically oriented sophomores. This course applies scientific principles, and emphasizes the integrated nature of the life sciences. Major topics will include an introduction to science practices, the chemical and physical basis for life, cell theory, the relationship between structure and function in the biological world, forensics, biotechnology, homeostasis, systems of the body and disease, ecosystems, and evolution. Students will be required to do an independent research paper. Other assessments will include tests, quizzes, laboratory write-ups, projects, and classroom presentations.

BIOLOGY

321 Grades 9, 10 CP CR Credit: 1.0

Recommendation: 9th. Grade Physical Science
For those students planning to continue their education, this course will meet college entrance requirements for all fields of study. Major topics will include an introduction to science practices, the chemical and physical basis for life, cell theory, the relationship between structure and function in the biological world, forensics, biotechnology, homeostasis, systems of the body and disease, ecosystems, and evolution. Assessments will include tests, quizzes, laboratory write-ups, projects, and classroom presentations.

AP BIOLOGY

319 Grades 11, 12 AP CR Credit: 1.0

AP Biology is a college-level introductory biology course that explores fundamental biological principles and processes through inquiry-based investigations, covering topics like evolution, cellular processes, energy and

communication, genetics, information transfer, ecology, and interactions. AP Biology emphasizes inquiry-based learning, encouraging students to explore scientific concepts through experimentation, data analysis, and critical thinking. Summer work prior to the start of class to review introductory topics is required.

AP CHEMISTRY

391 Grades 11, 12 AP CR Credit: 1.0

College credit available - (See guidance for details)

Recommendations: Strong Algebra skills

Runs every other year; opposite AP Physics

This course is designed to specifically prepare students for the AP Chemistry Exam, given in May each year. Success in this course requires self-motivation on the part of the student. The curriculum is demanding, challenging, and fast-paced. A college textbook is used for this course, and as a result, the student should have an above average understanding of algebra. The topics covered in Chemistry 330/331 are reviewed; however the majority of the class focuses on advanced chemistry topics including thermochemistry, solution chemistry, kinetics, organic chemistry, acids and bases, equilibrium, and electrochemistry. Students should expect to spend 4-8 hours per week outside of class on chemistry problems, lab reports, and related assignments. Online homework is required, so access to the internet is needed. Summer work prior to the start of class to review introductory topics is required.

ECE CHEMISTRY

ECE391 Grades 11, 12 ECE/AP CR Credit: 1.0

College credit available - (See guidance for details)

Recommendations: Honors Chemistry

Students will have the option of taking this class as an Early College Education opportunity through the University of Connecticut. This course will cover the first two semesters of Chemistry at the UCONN level. During the first semester the course is designed to provide a foundation for more advanced courses in chemistry. Atomic theory, laws and theories concerning the physical and chemical behavior of gases, liquids, solids, and solutions. Quantitative measurements illustrating the laws of chemical combination in the first semester lab. During the second semester portion students will focus on Equilibrium, thermodynamics, nuclear chemistry, and kinetics. Properties of some of the more familiar elements and their compounds. Equilibrium in solutions and reactions of the common cations and anions in the laboratory component.

PHYSICAL SCIENCE

315 Grade 9 H CR Credit: 1.0

Honors Physical Science is offered for highly motivated, academically oriented freshmen. This course is a rigorous introduction to scientific practices, the application of scientific principles, and the integrated nature of the sciences. The content is explored in great depth and employs extensive mathematical applications. Topics include science and engineering practices, forces and interactions, energy transfer and transformation, waves and electromagnetic radiation, Earth and space systems. Students plan and conduct investigations independently and collaboratively to produce data to serve as evidence for their claims. Emphasis is placed on developing models to predict and show relationships among variables between systems and their components. Obtaining, evaluating, and communicating information play a major role in the course. Students will use Lyman's technology resources including computer-based probeware, Google Sheets, Google Docs, and virtual learning environments.

PHYSICAL SCIENCE

313 Grade 9 CP CR Credit: 1.0

Physical Science serves as an introduction to scientific practices, the application of scientific principles, and the integrated nature of the sciences. This course is designed for all grade 9 students. Physical science students investigate the basic principles of chemistry and physics, earth, and space science. Topics include science and engineering practices, forces and interactions, energy transfer and transformation, waves and electromagnetic radiation, Earth and space systems. Students plan and conduct investigations independently and collaboratively to produce data to serve as evidence for their claims. Emphasis is placed on developing models to predict and show relationships among variables between systems and their components. Obtaining, evaluating, and communicating information play a major role in the course. Students will use Lyman's technology resources including computer-based probeware, Google Sheets, Google Docs, and virtual learning environments.

CHEMISTRY

330 Grades 10, 11, 12 H CR Credit: 1.0

Recommendation: Strong Algebra skills

Honors Chemistry is offered for highly motivated, academically oriented students. This fast-paced course utilizes scientific methodologies, applied mathematics and scientific principles, and emphasizes the integrated nature of the physical sciences. Topics are taught to a greater depth than Chemistry 331 and include an introduction to chemistry (terminology and measurements), atomic structure, electron arrangements, periodic table trends, bonding, chemical reactions and equations, stoichiometry, behaviors of solids, liquids, and gasses, nuclear chemistry, acids and bases, thermodynamics, and equilibrium. Demonstrations and laboratory assignments will support these topics. Assessments include quizzes, tests, lab reports, homework, and class work.

CHEMISTRY

331 Grades 10, 11, 12 CP CR Credit: 1.0

Chemistry 331 is designed as a college-preparatory level course, and will provide the college-bound student with a solid foundation for taking chemistry in college. For all students, this course aligns with NGSS, and explains how chemistry relates to them and supports our modern lifestyles. With a combination of demonstrations, laboratory experiments, class work, and homework, students will demonstrate an understanding of chemical principles. These include atoms, bonding, energy, chemical reactions and equations, periodic table arrangement, stoichiometry, nuclear chemistry, behaviors of solids, liquids, and gasses, and equilibrium. Assessments include quizzes, tests, labs, homework, and classwork. This course is more conceptual than chemistry 330.

ENVIRONMENTAL SCIENCE

381 Grades 11, 12 CP CR Credit: 1.0
380 Grades 11, 12 H CR Credit: 1.0

This course is offered for highly motivated, academically oriented Juniors and Seniors. It is designed for the student who wishes to gain broader knowledge and skills, and develop insight into these environmental issues. Disciplines such as biology, chemistry, earth science, the social sciences, math, technology, civics and philosophy will be explored when dealing with a wide range of environmental topics such as climate change, alternative energy sources, pollution, and land use. There will be a focus on local issues including water quality testing at Pease Brook. Students will acquire skills such as problem solving, analysis, and persuasive communication. Students will be assessed through labs, class discussions, various projects, weekly current events and issues papers, quizzes and tests.

Honors requirement: Honors students will be responsible for completing a community-based environmental project of their choice. Students will be required to identify a local issue, design and conduct investigations, interpret data, and plan and take action.

PHYSICS

340 Grades 10, 11, 12 H CR Credit: 1.0
341 Grades 10, 11, 12 CP CR Credit: 1.0

This course is an introductory course for students planning post-secondary education and is designed to enable students to appreciate the role of physics in today's society and technology. Upon completion, students will gain an understanding of the major concepts involved in describing motion, conservation principles, energy transfer and transformations, wave mechanics, and space science. This course aims to strike a balance between theory and practical application. Problem solving that emphasizes logical and systematic analysis of a situation, as well as lab experiences dealing with the major concepts of physics are included in this course.

THE SCIENCE OF ENGINEERING

348 Grades 10, 11, 12 H CR Credit: 1.0

Recommendation: Strong Algebra skills

Broadly speaking, engineering is the application of science and math principles to solve societal problems. This introductory course is a survey of different engineering fields, an introduction to the engineering design process, and an exploration of the role of engineering in society. Focus areas include the scientific principles and concepts used in mechanical engineering (strength and materials, stress, torque, form and function, energy transformations), civil engineering (structures, foundations, site selection, fluid mechanics, heat transfer, sustainable design), electrical engineering (circuits), and communication technologies (electromagnetism). Through projects and activities, the course aims to help students learn engineering skills and practices, learn what engineers do, and develop an appreciation for how engineered technology shapes our society.

AP PHYSICS 1

339 Grades 10, 11, 12 AP CR Credit: 1.0

Recommendations: Strong Algebra skills.

Runs every other year; opposite AP Chemistry

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics including rotational motion; work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Investigations will require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. Exam questions are based on learning objectives, which combine science practices with specific content.

ANATOMY/PHYSIOLOGY

351 Grades 11, 12 CP CR Credit: 1.0

Recommendation: Biology Credit

This course is designed to familiarize the student with the anatomical structures that exist and the physiological processes that occur within the human body. This course will provide the preliminary foundation for those students interested in the fields of nursing, sports medicine, health and physical education. Emphasis will be placed on the knowledge of human anatomy and physiology as they are

related to normal physical and mental development, and on understanding the nature of common disorders in the human body. In addition to tests, quizzes, and participation in classroom activities, the student will be required to demonstrate his or her knowledge through laboratory participation, laboratory write-ups, and classroom presentations.

METEOROLOGY

374 Grades 10, 11, 12 CP CR Credit: 0.5

From the rain-out of a ball game to the devastation of a hurricane, weather plays an important role in our everyday lives. Understanding the factors that form, control and alter weather is the basis for this course. From scheduling events to the warning of winter storms, the knowledge of the forces that create weather is invaluable. This course deals with major topics such as fronts, clouds, precipitation, humidity, temperature, storms and weather patterns. Each topic will be discussed in regards to its effect on humans and the environment. Each student will map and forecast their own weather report for broadcast. Students will complete an outside project agreed to by the instructor and student.

OCEANOGRAPHY

371 Grades 10, 11, 12 CP CR Credit: 0.5

The state of Connecticut borders on the Atlantic Ocean, more specifically, Long Island Sound. The oceans are one of the most valuable resources and we have a fundamental obligation to protect them. This course is designed to give students the basic knowledge of ocean processes. All aspects of science will be used in the study of the oceans. For example, chemistry is used in the study of salinity and dissolved oxygen, and using biology to study the effects on the habitats and functioning of plankton, fish and plant life in and around the oceans. Geologic hazards such as seismic waves, ocean trenches, and Plate Tectonics will also be discussed. Waves and ocean circulation will incorporate physics principles.. Field trips to Project Oceanology will be utilized to reinforce concepts discussed in class. Future use of the ocean for farming, harvesting and living are topics that are gaining national attention. This course will allow the students to visualize the ocean as a powerful, yet fragile system that the state of Connecticut depends upon.

CERTIFIED NURSE ASSISTANT (CNA)

000CNA Grade: 12 NR Credit: 1.0

This is a rigorous course taught in conjunction with Three Rivers Community College that will prepare students for an introductory career in nursing. This class would serve as the foundation for advanced certification and coursework in the nursing field. The course will be taught by a registered nurse and include off site clinical work at a rehabilitation facility as well as classroom work. Students will need to provide their own transportation to the facility. Students will need to pay for the state examination and must perform to state standards in order to receive their nursing assistant certification from the State of Connecticut.

AP ENVIRONMENTAL SCIENCE

384 Grade: 11, 12 AP CR Credit: 1.0

Prerequisite: Biology, C or higher in Algebra 1 and Geometry

Runs every other year.

The AP Environmental Science course is designed to provide students with the scientific theories, models, and techniques that will allow them to analyze local, regional and global environmental issues. A strong emphasis is placed on science, stewardship and sustainability. Students will utilize critical, creative, logical and reflective thinking to study and evaluate natural and human induced environmental problems. The course requires an interdisciplinary view that ranges across the social sciences, ethics, politics, mathematics, and many other scientific fields. Labs, field trips and special assignments are important aspects of the environmental science curriculum. Students should be aware that they must complete a summer assignment that will be due upon their return to school after the summer break. Students should also be prepared to use superior study skills and organizational skills in order to stay on top of their coursework

SOCIAL STUDIES

The Social Studies department offers a program of studies for grades 9 - 12 which provides a sequence of courses that have been arranged to provide students with a solid foundation in American and Global Studies. An extensive elective program, offering introductory courses in the major social science fields compliments the core curriculum. Three Social Studies credits are required for graduation from Lyman Memorial High School. United States History and Civics are required courses.

GLOBAL STUDIES

H400 Grade 9 H CR Credit: 1.0
401 Grade 9 CP CR Credit: 1.0

This course will require students to develop an increasing awareness of global issues and the changing political, economic and cultural connections among all the world's countries. Using geography as a foundation, students will explore the historical past and present of regional areas around the globe (Middle East, Africa, China, South Asia and Latin America). Students will compare similarities and differences among these regions and the influence of cause and effect on modern global problems and concerns.

CIVICS

443 Grade 10 H CR Credit: 0.5
444 Grade 10 CP CR Credit: 0.5

This course meets the civics requirement for graduation. Students will explore the workings of local, state and federal governments. They will be exposed to the history of the governmental process and come to understand the meaning and responsibilities of citizenship. Students will also examine the challenges confronting today's society and our government's response to those challenges.

EARLY U.S. HISTORY

470A Grade 10 H CR Credit: 0.5
471 Grade 10 CP CR Credit: 0.5

This course will introduce students to the establishment of the United States as a country from the period of exploration through 1800. It will focus on the colonial period and the development of an American frame of mind that led to the American Revolution and the creation of a representative government under the Constitution. Students will explore the struggles of the new nation and touch on how Connecticut played an important role in this early period of United States History.

U. S. HISTORY

420 Grade 11 H CR Credit: 1.0

This course will explore the foundations of American thought and follow its development to the present day. The purpose of this course will be to broaden the students' historical and cultural experience in a variety of ways that will hopefully enhance their understanding of what America is all about. Honors requirements: daily readings and quizzes, major writing assignments, and projects. Students need to have proficiency in writing and analytical thought.

U. S. HISTORY

419 Grade 11 AP CR Credit: 1.0

This course is a sequential/thematic approach to the study of the history of the United States, and is recommended for the highly motivated history student. This course will explore the foundations of American thought and follow its development to the present day. The purpose of this course is to broaden the student's historical understanding of what America is all about. Weekly papers, in-depth research, and outside reading are required. A national examination will be administered in the spring which may result in college credit.

U. S. HISTORY

421 Grade 11 CP CR Credit: 1.0

Students will explore the development of the American spirit as it manifests itself in the events and culture of various eras from 1800 to the present. The course will look at the role of the United States at home and abroad and how the country and its people evolved over time. College Prep requirements: daily homework, with reading and writing assignments and projects for each unit.

SOCIAL STUDIES ELECTIVES

An elective program has been designed to provide all students with social studies courses that will meet their interests. The elective courses are primarily designed for students in Grades 11, 12. Electives will be offered every year pending sufficient enrollment and staff.

AFRICAN AMERICAN AND LATINX STUDIES

487 Grades 11, 12 H CR Credit: 1.0
488 Grades 11, 12 CP CR Credit: 1.0

This 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. **Note: Students enrolled in this course have an option of receiving honors level or college**

prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.

MODERN EUROPEAN HISTORY

460 Grades 11, 12 AP CR Credit: 1.0

Modern European History is a history of the modern world, its people, nations, events, and movements that have influenced our time. This course begins with an exploration of early European history and culminates in the examination of the major issues of our own time. Weekly papers, in-depth research, and outside reading are required. A high level of social studies skill competency is demanded for this course. This advanced placement course concludes with a nationally administered examination which may result in college credit.

GEOGRAPHY I

456 Grades 11, 12 CP CR Credit: 0.5

The fall semester will apply the five themes of geography to the Western Hemisphere of our world. Political, social, and environmental issues will be covered. These geography themes are designed to organize geographical concepts and stimulate problem solving, critical thinking and decision-making skills. Geography II covers the western hemisphere of our world and may be taken in addition to Geography I for a full credit.

GEOGRAPHY II

457 Grades 11, 12 CP CR Credit: 0.5

This course is offered in the Spring.

A look at the five themes of geography are displayed throughout the eastern hemisphere. Political, social, and environmental issues will be covered. These geography themes are designed to organize geographical concepts and stimulate problem solving, critical thinking, and decision-making skills. Geography I will cover the western hemisphere and may be taken in addition to Geography II for a full credit.

LAW

494 Grades 11, 12 H CR Credit: 1.0
496 Grades 11, 12 CP CR Credit: 1.0

An examination of the system of justice will be explored in this course. A historical look at the concepts of law will be the initial focus of this program. How laws are made and law justice is perceived will be examined thoroughly throughout this course. Students are expected to complete a project of their choice in which they will examine one aspect of the judicial system as it exists today in America. Students will compete in mock trial situations. **Note: Students enrolled in this course have an option of receiving honors level or College Prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.**

INTRODUCTION TO PSYCHOLOGY

451 Grades 11, 12 CP CR Credit: 0.5
452 Grades 11, 12 H CR Credit: 0.5

The focus of this introductory course will be on the major schools of psychology: Psycho-analytic theory; behaviorism; humanism existentialism; and transpersonal psychology. In addition, the course will provide a primer, through study and application, to the methods of research used in studying psychology. **Students enrolled in this course have an option of receiving honors level or College Prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.**

AMERICAN GOVERNMENT AND POLITICS

486 Grades 11- 12 AP CR Credit: 1.0

This course examines the American political system in terms of its theory, historical origin, and practical application. Regularly assigned readings, discussions, and written analyses form the core of the program. A national examination will be administered in the spring which may result in college credit. This course is open only to properly qualified, highly motivated students.

PROBLEMS OF PHILOSOPHY

445 Grades 11, 12 H CR Credit: 1.0
ECE445 Grades 11, 12 ECE CR Credit: 1.0

This is a University of Connecticut approved course that provides junior and senior students with a full-year course, which requires them to learn, think, and write philosophically. The course should encourage students to think logically, verify arguments, enhance critical thinking skills, and defend philosophical arguments in debate form. The course should enhance intellectual and debating skills which will be used in college.

THE SIXTIES

480 Grades 11, 12 H CR Credit: 0.5
481 Grades 11, 12 CP CR Credit: 0.5

This course traces the people, events, and places that made the 1960's one of the most turbulent decades in American history. Politics, Domestic and Foreign Policy, Civil Rights and Women's Movements, and the Counterculture experience will be explored through primary and secondary source materials. Literature, TV, movies, fashion, and music will be interwoven throughout each unit of the course. Writing, debating, and discussing are a regular part of class work. An oral-visual presentation and a research paper are also requirements for the course. **Students enrolled in this course have an option of receiving honors level or College Prep credit. Those seeking honors level credit must agree to the**

additional required criteria, available from the instructor.

RUSSIAN HISTORY

425 Grades 11, 12 H CR Credit: 0.5
426 Grades 11, 12 CP CR Credit: 0.5

This course is a survey of Russian history from the late 17th century (era of Peter the Great) to the present with a brief background introduction on the early Kievan and Russian states. Students will be introduced to the unique culture of Russia as well as Russia's role in the world from the time of the Tsars through the creation of the Soviet Union and today's Russian Federation. Regularly assigned readings, discussions, writing assignments, and occasional projects will be required. **Note: Students enrolled in this course have an option of receiving honors level or college prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.**

U.S. FOREIGN POLICY

437 Grades 11, 12 H CR Credit: 0.5
438 Grades 11, 12 CP CR Credit: 0.5

This course is a general introduction to the historical and contemporary issues of U.S. foreign policy. We will explore major foreign policy traditions throughout U.S. history. Key questions dealt with in the course are: How is national interest defined and how has it evolved? How does presidential leadership shape American foreign relations? What is the role of public opinion in U.S. foreign policy? Emphasis will be placed on the main international issues faced by the United States since the end of the Cold War such as terrorism, nuclear proliferation, international cooperation, and global governance. Regularly assigned readings, discussions, writing assignments, and occasional debates and projects will be required. **Note: Students enrolled in this course have an option of receiving honors level or college prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.**

MODERN GENOCIDE STUDIES

00H439 Grades 9, 10, 11, 12 H CR Credit: 0.5
0CP439 Grades 9, 10, 11, 12 CP CR Credit: 0.5

Genocide is defined as, "the deliberate killing of a large group Modern Genocide of people, especially those of a particular ethnic group or Studies nation." 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.
NOTE: Students enrolled in this course have an option of Honors level or College Prep credit. Those seeking honors level credit must agree to the additional required criteria, available from the instructor.

INTRODUCTION TO HUMAN RIGHTS

ECE433 Grades 11, 12 ECE CR Credit: 1.0
000433 Grades 11, 12 H CR Credit: 1.0

This is a University of Connecticut approved course focused on the concept of human rights. The course will include an exploration of central human rights institutions, selected human rights themes and political controversies, and key political challenges of contemporary human rights advocacy.

SPECIAL EDUCATION

The Special Education Department provides individualized instructional programs to those students who have been identified by the Planning and Placement Team as needing such services. Individual student needs are defined as a result of educational and psychological diagnosis; an individualized special education program is developed appropriate to these identified needs. Resource Room based courses are appropriate when participation in the regular curriculum would be not appropriate. A student meets with the Resource Room teacher individually or in small groups. Individualized programs are designed from the course offerings.

The Special Education Department provides individualized instructional programs to those students who have been identified by the Planning and Placement Team as needing such services. Educational and cognitive standardized assessments and clinical input are some of the resources used to determine individual students' needs. Resource Room courses may be scheduled when participation in the general education curriculum would be not appropriate. Special Education students work with Special Education teachers and/or instructional assistants individually or in small groups. Individualized programs are designed from the course offerings.

RESOURCE ROOM COURSE OFFERINGS

ENGLISH

MODIFIED ENGLISH

1100 Grade 9 CP CR Credit: 1.0
1200 Grade 10 CP CR Credit: 1.0

This course is designed to meet the needs of students in grades 9 and 10 with significant reading/writing deficits who have been identified as meeting criteria to receive direct instruction in a special education setting. Targeted Special Education instruction will address student-specific related deficits while addressing grade-level curriculum topics. Students will cite textual evidence to support analysis and inferences to determine central ideas of a variety of given text. Students will produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Students will determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9-10 reading and content, choosing flexibly from a range of strategies. **These courses qualify for English credit.**

MODIFIED ENGLISH

1300 Grade 11 CP CR Credit: 1.0
1400 Grade 12 CP CR Credit: 1.0

This course is designed to meet the needs of students with significant reading/writing deficits who have been identified as meeting criteria to receive direct instruction in a special education setting. Targeted Special Education instruction will address student-specific related deficits while targeting grade-level curriculum topics, as well. Students will cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain. Students will determine two or more themes or central ideas of a text and analyze their development. Students will read and comprehend literature, including stories, dramas, and poems, with scaffolding as needed. Students will develop and strengthen writing skills through planning, revising, editing, rewriting while focusing on addressing what is most significant for a specific purpose and audience. **These courses qualify for English credit.**

MATHEMATICS

CONSUMER MATH

2500 I CR Credit: 1.0
2600 II CR Credit: 1.0

This course is designed to meet the needs of individual students with significant math deficits. Students in these classes have been identified as meeting criteria to receive direct instruction in a Special Education setting. Targeted Special Education instruction will address specific skill deficits with regard to using basic math skills in real life situations like shopping, calculating taxes, estimating monthly budget, calculating interest rate for a loan, etc. This course is designed to teach students about spending, saving and other aspects of "money math" in order to prepare them to make better financial decisions as adult consumers. **This course qualifies for math credit.**

GENERAL MATH

2200 Grade 10 CP CR Credit: 1.0
2300 Grade 11 CP CR Credit: 1.0

This course is designed to meet the needs of individual students with significant math deficits. Students in this class have been identified as meeting criteria to receive direct instruction in a Special Education setting. Targeted Special Education instruction will address student-specific skill deficits with regard to whole numbers, fractions, decimals and percentages, data analysis and basic statistics, as well as the application of those skills in problem solving situations.
This course qualifies for math credit.

MODIFIED ALGEBRA I

2800 Grades 9, 10, 11, 12 CP CR Credit: 1.0

This course is designed to meet the needs of individual students with significant math deficits. Students in these classes have been identified as meeting criteria to receive direct instruction in a Special Education setting. Targeted

Special Education instruction will address student-specific skill deficits with regard to basic algebraic skills. Students will apply integers rules, solve algebraic expressions, solve equations, use formulas, solve literal equations and apply problem solving skills. **This course qualifies for math credit.**

MODIFIED ALGEBRA II

2901 Grades 9, 10, 11, 12 CP CR Credit: 1.0

This course is designed to meet the needs of individual students with significant math deficits. Students in these classes have been identified as meeting criteria to receive direct instruction in a Special Education setting. Targeted Special Education instruction will address student-specific skill deficits while targeting grade-level Algebra II curriculum. Students will apply systems of equations, polynomials, factoring, and quadratic equations. **This course qualifies for math credit.**

MODIFIED GEOMETRY

2140 Grades 9, 10, 11, 12 CP CR Credit: 1.0

This course is designed to meet the needs of individual students with significant math deficits. Students in these classes have been identified as meeting criteria to receive direct instruction in a Special Education setting. Targeted Special Education instruction will address student-specific skill deficits while targeting grade-level geometry curriculum. Students will learn about properties of points, lines, planes, triangles, polygons, and circles. **This course qualifies for math credit.**

READING

FOUNDATION READING 1

1509 Grades 9, 10, 11, 12 NR Credit: 1.0

This course is designed to meet the needs of students with significant reading deficits. Students in this class have been identified as meeting criteria to receive direct instruction in a Special Education setting. Basic reading skills development is the focus of this class. Students will know and apply grade-level phonics and word analysis skills in decoding words. Students will use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. Students will read with sufficient accuracy and fluency to support comprehension. **This course qualifies for elective credit.**

FOUNDATION READING 2

1512 Grades 9, 10, 11, 12 NR Credit: 1.0

This course is a continuation of Foundation Reading 1.

ACADEMIC READING SKILLS

6004 Grades 9, 10, 11, 12 Credit: 1.0

This course is designed to meet the needs of students with documented reading deficits. Students in this class have been identified as meeting criteria to receive direct instruction in this academic area in a Special Education setting. Special Education instruction will address student-specific reading deficits. The focus of this class is to reinforce what is taught in students' general education classes, as well. **Students are scheduled for general education English classes, as well. This course qualifies for elective credit.**

ADULT DAILY LIVING SKILLS

ACADEMIC SKILLS

6001 Grades 9, 10, 11, 12 NR Credit: 1.0

This course is designed to meet the needs of individual students with executive functioning deficits. Students in this class have been identified as meeting criteria to receive direct instruction in a Special Education setting. Special Education instruction will address specific deficits which may include: poor study skills, lack of time management skills and lack of organizational skills, etc. The focus of this class is to reinforce what is taught in students' general education classes, as well**. This course qualifies for elective credit.**

TECHNOLOGY EDUCATION

The Technology Education department involves the areas of Computer Aided Drafting, manufacturing, and construction. It functions through the use of related materials and manipulative work while giving the student an understanding of tools and equipment as well as materials and processes used in industry.

INTRODUCTION TO TECHNOLOGY EDUCATION

701 Grades 9, 10, 11, 12 NR Credit: 1.0

Introduction to Technology Education is a course designed to enhance problem-solving and decision making skills in the areas of construction, manufacturing, and computer aided design. Students will be exposed to various areas that utilize hand tools, power machines and computer assisted machinery in the formation of different products using metal, wood, and synthetics.

CONSTRUCTION II

718 Grades 10, 11, 12 NR Credit: 1.0

Prerequisite: Introduction to Technology Education

Construction II is offered to students who have completed the prerequisite course(s). It is recommended that students have achieved a grade of 'B' or better in the prerequisite courses. Specific instruction will cover specialty framing materials and finish construction techniques. Cabinet construction will be introduced, and different types of cabinets will be constructed. Both group and individual projects will be incorporated into the program. CAD programs will be available for students to design projects and to generate bill of material sheets.

CONSTRUCTION III

719 Grades 11, 12 NR Credit: 1.0

Prerequisite: Construction II

Construction III is offered to students who have learned the techniques of cabinet construction in Construction II and have an interest in further developing their knowledge and skills. Students will have an opportunity to design and construct period furniture pieces. Mass production techniques may be employed. Computer run machinery will be used extensively in the successful completion of different products.

INTRODUCTION TO CAD

702 Grades 9, 10, 11, 12 NR Credit: 1.0

Introduction to CAD is a full year course. It will expose students to mechanical, architectural, and other areas related to the drafting field. Students will solve problems using the different functions available to them on the computer. Drawings will be either plotted or printed and possibly used in the construction or manufacturing areas.

MECHANICAL DESIGN

703 Grades 10, 11, 12 CP CR Credit: 1.0
00H703 Grades 10, 11, 12 H CR Credit: 1.0

Prerequisite: Introduction to CAD

Students enrolled in this course have an option of receiving Honors level or College Prep level credit. Those seeking honors level credit will need teacher and school counselor recommendations and must agree to the additional required criteria, available from the instructor. Mechanical Design is a course designed for the student who has successfully passed Introduction to CAD and wishes to expand his/her knowledge and skills in the area of Computer Aided Drafting. Mechanical Design will offer students the ability to work on advanced three dimensional drawings, three dimensional modeling, wire frame modeling and other challenging problems that can be processed using SolidWorks software and its applications.

ARCHITECTURAL DESIGN FUNDAMENTALS

707 Grades 10, 11, 12 CP CR Credit: 1.0
00H707 Grades 10, 11, 12 H CR Credit: 1.0

Prerequisite: Introduction to CAD

Students enrolled in this course have an option of receiving Honors level or College Prep level credit. Those seeking honors level credit will need teacher and school counselor recommendations and must agree to the additional required criteria, available from the instructor. Architectural Design Fundamentals is a course designed for the student who has successfully completed Introduction to CAD and wishes to expand his/her knowledge in the area of architectural drawing. This course will offer students the ability to draw floor plans and elevations incorporating a variety of design symbols.

INTRODUCTION TO MANUFACTURING

763 Grades 9, 10, 11, 12 NR Credit: 1.0

This course will familiarize you with the basic mechanic and manufacturing skills and engineering knowledge required for new hires as an entry level employee in a manufacturing or
related field. The course will convey basic trade knowledge, workplace skills and production readiness to prepare students for a career in local companies upon high school graduation.

WELDING I

705 Grades 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Introduction to Manufacturing (can be taken simultaneously)

Students learn to layout, cut and prepare metal while they practice basic Mig and Arc welding techniques. They also become familiar with welding equipment and careers in

the field as they begin work on the foundational elements of American Welding Association's SENSE welding certification.

WELDING II

705a Grades 9, 10, 11, 12 NR Credit: 0.5

Prerequisite: Welding 1

Students expand on their welding skills with more Mig and Arc welding practice along with the introduction of TIG welding. Students work to fabricate metal products while they learn about welding careers at Electric Boat and other Eastern CT manufacturers. These students also continue working toward American Welding Association's SENSE welding certification.

Lyman Memorial High School is part of Virtual High School (VHS). VHS's mission is to develop and deliver standards-based, student centered online courses to expand students' educational opportunities and access to develop 21st century skills. VHS offers a catalog of full semester and full year courses in Art, Foreign Language, Language Arts, Life Skills, Math, Science, Social Studies, Technology and AP study. Core courses are NCAA accredited. VHS courses are intended to augment rather than replace traditional classroom teaching and may help resolve issues such as scheduling conflicts, meeting graduation requirements, or preparing for a college major. Courses taken through VHS promote a highly collaborative learning environment, where student exchange and interaction is an important component of the process. Qualified students must be self-directed and self-motivated learners, who are interested in pursuing a course of study not already offered at Lyman. Interested students should obtain further information from their school counselor. To see the most recent offerings please visit: https://vhslearning.org/catalog.

Students are eligible to take a course through VHS if Lyman does not offer the course or if there are mitigating circumstances, such as that the course will not fit in their schedule and it is a course they will need for their college major.

Students can fill out an application after an information session in the spring for the following year.

Once the application deadline passes, a committee will meet to discuss each student's eligibility. This committee will include the school counselors and the VHS site coordinator, and could include an administrator.

Students will be selected to fill available seats based on previous academic performance, recommendations of classroom teachers, and need of the course/credit.

Credits: Half year courses are worth ½ credit; full year courses are worth a full credit.

WORLD LANGUAGES

The Department of World Languages at Lyman Memorial High School strives to impart linguistic skills in Spanish within a cultural context so that students are better prepared to understand and have a genuine respect for all people and cultures. As the United States continues to become increasingly linguistically diversified, it is imperative that students be able to communicate with peers and co-workers. Students pursuing post-secondary educational opportunities or entering the workforce will discover that knowledge of multiple languages will be a vital and necessary skill. Indeed, familiarity with other cultures will be of great benefit in daily interactions after high school. The Department further encourages students to explore more than one language in order to work towards the goal of being a more worldly individual.

HONORS COURSES

Honors courses are the most demanding and rigorous in the department. Independent learning is a key component to success. Students will be expected to learn at a rapid pace and complete extensive homework on a daily basis. Assessments are frequent requiring depth of thought, insightful analysis and familiarity with a wide range of content. It is expected that students will have the ability to apply previous knowledge and connect and make relevant new knowledge to old.

COLLEGE PREP COURSES

These courses are the traditional sequence for college preparatory students. Students will be expected to learn at a level of difficulty commensurate with similar students planning on post-secondary education. It will be necessary to memorize extensive vocabulary and grammatical concepts. Retention of knowledge from previous years will be imperative for continued learning through the sequence.

SPANISH

SPANISH I

561 Grades 9, 10, 11, 12 CP CR Credit: 1.0

This traditional introductory course focuses on communicative skills. Emphasis will be placed on listening and speaking aptitudes for the purpose of communication. Students will learn the sound system, basic grammar concepts and develop their reading and writing abilities to support this goal. They will also be introduced to the cultural richness of the Spanish-speaking world in order to acquire knowledge and make connections to our global society. Students will focus on the geography, history and essential cultural topics relating to Mexico, Texas, Puerto Rico and Spain.

SPANISH II

570 Grades 9, 10, 11, 12 H CR Credit: 1.0

Prerequisites Grade 9-12: Successful completion of Spanish I

This intermediate course for honors credit reinforces the primary goal of language acquisition that is to continue to strengthen communication skills: speaking, listening, reading and writing. Students will study more advanced grammatical structures at an accelerated pace, build their vocabulary and participate in spontaneous conversations. The secondary goal is to broaden the student's cultural awareness of the Spanish-speaking world in order to make connections to our global society. Students will focus on the geography, history and essential cultural topics relating to Costa Rica, Mexico, the Dominican Republic and Argentina. Regular oral presentations and at least one research project will be required. Students are expected to speak and use Spanish on a regular basis in class.

SPANISH II

571 Grades 9, 10, 11, 12 CP CR Credit: 1.0

Prerequisites: Successful completion of Spanish I

This intermediate course reinforces the primary goal of language acquisition that is to continue to strengthen communication skills: speaking, listening, reading and writing. Students will study more advanced grammatical structures, build their vocabulary and participate in spontaneous conversations. The secondary goal is to broaden the students' cultural awareness of the Spanish-speaking world in order to make connections to our global society. Students will focus on the geography, history and essential cultural topics relating to Costa Rica and Mexico. Students are expected to speak and use Spanish on a regular basis in class.

SPANISH III

580 Grades 9, 10, 11, 12 H CR Credit: 1.0

Prerequisites: Successful completion of Spanish II Honors or College Prep

This intermediate course for honors credit reinforces the primary goal of language acquisition to refine skills in speaking, reading and writing for increased proficiency. Oral presentations, creative writing assignments and at least one research project will be required. More complex grammatical structures of the language and advanced vocabulary will be introduced at an accelerated pace and will be applied through studies of cultural and current social issues. The secondary goal is to broaden the students' cultural awareness of the Spanish-speaking world in order to make connections in our global society. Students will continue to study basic geography and essential history of various Spanish-speaking countries. Students are required to speak and use Spanish in class.

SPANISH III

581 Grades 9, 10, 11, 12 CP CR Credit: 1.0

Prerequisites: Successful completion of Spanish II
This intermediate course reinforces the primary goal of language acquisition to refine skills in speaking, reading and writing for increased proficiency. More complex grammatical structures of the language and advanced vocabulary will be introduced. Dialogs, oral presentations, creative writing assignments and at least one research project will be required. The secondary goal is to broaden your knowledge of the Spanish-speaking world in order to make connections in our global society. Students will focus on the geography, history and essential cultural topics relating to the Dominican Republic, Argentina and Spain. Students are expected to speak and use Spanish on a regular basis in class.

SPANISH IV

591 Grades 10, 11, 12 H CR Credit: 1.0

Prerequisites: Successful completion of Spanish III Honors
This advanced course for honors credit, taught primarily in Spanish, emphasizes oral proficiency and written communication skills. Students will be expected to incorporate advanced vocabulary, grammatical constructions and verb tenses in spontaneous dialogs, oral presentations and guided compositions. Creative writing and independent research will be required. Students will begin to read and discuss in Spanish various genres of authentic literature and authors representative of the Spanish-speaking world. Authentic videos will be used to increase comprehension and fluency. Students are required to speak and use Spanish on a regular basis in the class.

SPANISH IV

592 Grades 10, 11, 12 CP CR Credit: 1.0

Prerequisites: Successful completion of Spanish III
This advanced course, taught primarily in Spanish, further develops oral, reading, listening and writing skills in Spanish. Students will incorporate advanced vocabulary, grammatical constructions and verb tenses in a variety of settings including dialogs, oral presentations, skits, compositions and journals. Emphasis will be placed on reading authentic literature from a range of authors and poets, which will serve to expand vocabulary and literary knowledge, and cultural awareness of the Spanish-speaking world. At least one research project in Spanish will be required. Students are required to speak and use Spanish on a regular basis in the class.

SPANISH V

596 Grades 11, 12 AP Credit: 1.0
595 Grades 11, 12 H Credit: 1.0

Prerequisites: Successful completion of Spanish IV Honors
The AP course requires intensive grammar review, mastery of advanced idioms, and high levels of oral and written fluency. The honors course requires the application of advanced vocabulary, grammatical constructions and verb tenses previously taught in the discussion and analysis of literary works of the Hispanic world.
Essays, papers and oral presentations will be required in both AP and honors courses. Authentic videos will be incorporated to support goals of cultural enhancement and fluency. Students are required to speak and use Spanish in class.



“It should be our objective to train minds as tools that can be used for a lifetime, inquiring minds, curious minds, seeking, constantly refueling their ideas and their information.”
- Eleanor Roosevelt