



SY19

# PROGRAM OF STUDIES



Lynn Classical High - Lynn English High

## ENGLISH

English 9 | English 10 | English 11 | English 12 | Honors | AP | SAT

## MATHEMATICS

Honors | Algebra | Geometry | Calculus | Pre-Calculus | Trigonometry | Probability & Statistics | AP | College Liberal Arts | Differential Calculus | Honors Mathematical Biology | SAT Math | Advanced Math | Portfolio for Math

## SCIENCE

Biology | AP | Chemistry | Environmental Science | Anatomy & Physiology | Marine Biology | Biotechnology Practices | Physics | Earth Science | Geology Engineering the Future | Ecology | History of Science & Technology | Clean Energy Foundations |

## SOCIAL STUDIES

World History | U.S. History | AP United States History | AP European History | History 20<sup>th</sup> Century | History & Structure of American Government | AP U.S. Government & Politics | Street Law | Criminal Law | Psychology | Sociology | AP Microeconomics | Geography of Eastern/Western Hemisphere | History of Lynn/NE | Ancient History

## FOREIGN LANGUAGES

Conversational Spanish | Spanish | Spanish Review | AP Spanish Language | Etymology | Conversational French | French | AP French Language | Latin | Introduction to Ancient Greek | AP Latin: Vergil | Spanish for Heritage Speaker



## CISCO NETWORKING ACADEMY



Introduction to Networking (ITN) | Routing and Switching Essentials (R&SE) | Information Technology Essentials (ITE)

## APPLIED TECHNOLOGY

Computer Applications | Computing with MS Word | Pre-Engineering - CAD | Computing for College | Computer Literacy | Web Design/Desktop Publishing | Programming with JAVA/C++ | Computer Technology | Computer & Network Maintenance | Computer Accounting | Television Production

## ENGLISH LEARNER PROGRAM

SLIFE ESL & Literacy | ESL 1 | ESL 2 | ESL 3 | ESL 4 | English Language & Literacy Development 1 | English Language & Literacy Development 2 | SLIFE Foundations of Algebra/Geometry | Algebra I & Algebra II | Geometry | SLIFE Life Science | Biology I & Biology II | Ecology | U.S. History I & II | US History & Structure of the American Government | World History II | Portfolio for ELA

## ELECTIVES

Art | Music Theory I & II | Band | Piano I, II, III | Concert Choir | Chorus | Gospel Choir | Women's Chorus | Theatre Arts | Stagecraft | Community Service | Health | Physical Education | Consumer Law | Jobs for American Graduates | Financial Literacy | Forensic Investigation



## MARINE CORPS JUNIOR RESERVE OFFICER TRAINING CORPS.



ROTC I | ROTC II | ROTC III | ROTC IV | ROTC V

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# Lynn Public Schools Directory



**Administrative Offices**  
**100 Bennett Street, Lynn, MA 01905**  
**Tel. 781-593-1680 ~ Fax 781-477-7487**

[www.lynnschools.org](http://www.lynnschools.org)

<https://www.facebook.com/LynnPublicSchools>

**Superintendent of Schools..... Catherine C. Latham, Ed. D.**  
**Deputy Superintendent..... Patrick Tutwiler, Ph.D.**  
**Deputy Superintendent..... Kimberlee Powers**  
**Executive Director of Curriculum and Instruction ..... Debra Ruggiero**  
**Secretary of the School Committee ..... Thomas Iarrobino**

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## MIDDLE SCHOOLS (grades 6, 7 & 8)

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<b>BREED MIDDLE SCHOOL</b> 90 O'Callaghan Way - Lynn, MA 01905	<b>Julie Louf, Principal</b> Mike Zimirowski, Vice Principal Nicholas Chareas, Vice Principal	<b>781-477-7330</b>
<b>THURGOOD MARSHALL MIDDLE SCHOOL</b> 100 Brookline Street - Lynn, MA 01902	<b>Molly Cohen, Principal</b> John L. Pavia, Vice Principal Stephanie Doucette, Vice Principal	<b>781-477-7360</b>
<b>PICKERING MIDDLE SCHOOL</b> 70 Conomo Avenue - Lynn, MA 01904	<b>Kevin Rittershaus, Principal</b> Maria Fenn, Vice Principal	<b>781-477-7440</b>

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## SENIOR HIGH SCHOOLS (grades 9 – 12)

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<b>CLASSICAL HIGH SCHOOL</b> 235 O'Callaghan Way - Lynn, MA 01905	<b>Eugene Constantino, Principal</b> Amy Dunn, Vice Principal Dennis Thompson, Vice Principal Christopher Warren, Vice Principal	<b>781-477-7404</b>
<b>ENGLISH HIGH SCHOOL</b> 50 Goodridge Street - Lynn, MA 01902	<b>Thomas Strangie, Principal</b> Jennifer Mancaniello, Vice Principal Maura Walsh, Vice Principal Gary Molea, Vice Principal	<b>781-477-7366</b>
<b>LYNN VOCATIONAL TECHNICAL INSTITUTE</b> 80 Neptune Blvd. – Lynn, MA 01902 90 Commercial St. – Lynn MA 01905	<b>Robert Buontempo, Director</b> Emily Spinucci, Assistant Director Fred Gallo, Assistant Director	<b>781-477-7420</b>

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## ALTERNATIVE SECONDARY SCHOOLS

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<b>FECTEAU LEARY JR/SR HIGH SCHOOL</b> 33 No. Common Street - Lynn, MA 01902	<b>Maura Durgin-Scully, Principal</b> Joseph Glowik, Vice Principal	<b>781-268-3007</b> <b>Ext. 1801-1802</b>
<b>LYNN EVENING ENRICHMENT PROGRAM (LEEP)</b> 50 Goodridge Street - Lynn, MA 01902	<b>Eva O'Malley, Director</b>	<b>781-477-7220</b> <b>Ext. 3223</b>

## NONDISCRIMINATION

It is the policy of the Lynn Public Schools not to discriminate on the basis of race, color, national origin, marital status, age, sex, religion, sexual orientation, gender identity, disability and homelessness in admission to, access to, treatment in, or employment in its programs activities in compliance with Title VI and VII of Civil Rights Act of 1964, Title IX of the 1972 Amendments to the Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, The Age Discrimination in Employment Act, and M.G.L. Ch. 76:5, M.G.L., Ch.151C

An aggrieved party must institute proceedings within thirty (30) school days of the event or events giving rise to the grievance or within thirty (30) school days from the date the aggrieved party had knowledge or reasonably should have had knowledge of the event or events giving rise to the grievance.

A person who feels that he or she has been discriminated against for any of the reasons cited above should follow this procedure:

1. The complaint should submit any allegations of discrimination in writing to his/her nearest building Principal/or the immediate supervisor for consideration. He/she should request that the discriminatory situation be corrected as soon as possible.
2. The Principal will investigate the allegations and respond to the complainant through personal interview and in writing within ten (10) school days of receipt of the written complaint.
3. If the matter is not resolved, at a conference or in a written communication, the complainant may appeal in writing to the Title IX, Coordinator. The Coordinator will meet with the complainant and respond in writing within ten (10) school days of receipt of the written complaint.

Barbara Rafuse, Director of Personnel  
Lynn Public School Administration Building  
100 Bennett Street  
Lynn, MA. 01905  
781-477-7220

4. If, at the end of ten (10) school days following the written response from the Title IX, Coordinator the matter remains unresolved. The complainant has the right to appeal to the Superintendent of schools in writing.
5. The Superintendent of schools shall investigate the complaint and respond in writing to the complainant no later than ten (10) school days after having received the complaint.
6. If the matter remains unresolved, the complainant may appeal in writing to the School Committee within ten (10) school days of receipt of the Superintendent's response. The School Committee will meet within fifteen (15) school days to review and consider the matter. The Committee will respond to the complainant in writing within five (5) school days following that meeting.
7. If the matter still remains unresolved for the complainant, he or she has the right to appeal directly to the District Office of Civil Rights for a review of Steps 1 through 6, and to further his/her case or terminate same with guidance and instruction from said office.

Since it is important that grievances be processed as rapidly as possible, the number of days indicated at each level should be considered as maximum and every effort should be made to expedite the process.

A grievant may file a complaint with the following agencies:

U.S. Department of Education, Office for Civil Rights, 5 Post Office Square, Boston, Massachusetts 02109-3921; Telephone (617) 289-0011, Facsimile: (617) 289-0150, Email: OCR.Boston@ed.gov as follows:

- Within 180 calendar days of alleged discrimination or harassment, or
- Within 60 calendar days of receiving notice of Lynn Public School's final disposition on a complaint filed through Lynn Public Schools or
- Within 60 calendar days of receiving a final decision by the Massachusetts Department of

Education, Bureau of Special Education Appeals

United States Equal Employment Opportunity Commission (EEOC) - 300 days:  
John Kennedy Federal Building, 475 Government Center, Boston, MA 02203, (800) 669-4000

Massachusetts Commission Against Discrimination (MCAD) – 300 days:  
Boston Office: One Ashburton Place, Rm. 601, Boston, MA 02108 (617) 994-6000

LEGAL REFS.: Title VI, Civil Rights Act 1964  
Title VII, Civil Rights Act of 1964, as amended by the Equal Employment  
Opportunity Act of 1972  
Title IX, Education Amendments of 1972  
Equal Pay Act, as amended by the Education Amendments of 1972  
Rehabilitation Act of 1973  
Education for all Handicapped Children Act of 1975  
M.G.L., Ch. 76:5,  
M.G.L., Ch. 151C  
M.G.L., Ch.76:16

File: IK

## **ACADEMIC ACHIEVEMENT**

The philosophy of the Lynn School Committee concerning academic achievement, as well as children's social growth and development, is based on the premise that children have diverse capabilities and individual patterns of growth and learning.

Therefore, the committee feels it is important that teachers have as much and as accurate knowledge of each student as possible in order to assess his needs, his growth, and make instructional plans for him. A sharing of information among parent, teacher, and student is essential.

The committee supports staff efforts to engage better ways of measuring and reporting student progress. It will require that:

1. Parents be informed regularly, and at least four times a year, of the progress their children are making in school.
2. Parents will be alerted and conferred with as soon as possible when a child's performance or attitude becomes unsatisfactory or shows marked or sudden deterioration.
3. Insofar as possible, distinctions will be made between a student's attitude and his academic performance.
4. At comparable levels, the school system will strive for consistency in grading and reporting except as is inappropriate for certain classes or certain students.
5. When no grades are given but the student is evaluated informally in terms of his own progress, the school staff will also provide a realistic appraisal of the student's standing in relation to his peers.
6. When grades are given, the school staff will take particular care to explain the meaning of marks and symbols to parents.

File: IKA

## **GRADING SYSTEMS**

It is the philosophy of the Lynn School Committee that students respond more positively to the opportunity for success than to the threat of failure. It seeks, therefore, through its instructional programs, to make achievement both recognizable and possible for students. It emphasizes achievement through the use of letter grades.

The primary purpose of grading is to report to students and their parents the extent to which their son or daughter has mastered the content of a course as defined by the course objectives.

## **GRADING SYMBOLS**

The following letter grades shall be used:

- A = Student mastery of course content is Excellent/Superior
- B = Student mastery of course content is Very good/Above Average
- C = Student mastery of course content is Good/Satisfactory
- D = Student mastery of course content is Minimally Satisfactory
- F = Student mastery of course content is Unsatisfactory. No credit is granted.  
Student is eligible to attend Summer School with principal's approval.
- I = Student's work is incomplete for valid reason (i.e., illness). The next report card will indicate a letter grade in place of "I", if work is completed satisfactorily.
- P = Student mastery of course content is satisfactory.

## BASIS FOR GRADING

Course expectations will be discussed and/or distributed at the beginning of each course to all students. Teachers will take time to explain to students the course objectives, his/her expectations of student performance and responsibilities, and the evaluating system the teacher will use to determine the extent to which the student has achieved the course objectives. The teacher will also make clear to the students at appropriate intervals (e.g., beginning of each quarter), and parents as necessary, the basis upon which the grades are earned.

Grades are based on evidence of the attainment of the instructional objectives of the course. The extent to which the student has attained these objectives shall be determined by his/her performance on assessment measures developed, administered, and corrected and returned by the teacher. Included for grade determination will be tests, quizzes, homework assignments and class participation activities.

All final failing grades (F's) shall be reviewed by the teacher. The teacher shall have the authority to adjust these final grades upward by no more than one level (F to D-). The minimum passing grade shall be D-.

No passing grade may be changed to a failing grade. Teachers are strongly encouraged to use the comment section of the report card in order to provide additional evaluative information to parents and students.

Student grades for all grades and courses shall be reported using the following conversion table:

<b>GRADE</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>D-</b>	<b>F</b>
<b>RANGE</b>	93 -	90-	87-	83-	80-	77-	73-	70-	67-	63-	60-	Below
	100	92	89	86	82	79	76	72	69	66	62	60

File: IKAB

### STUDENT PROGRESS REPORTS TO PARENTS

Reports on the progress of pupils will be provided to parents four times each school year. In addition, mid-term progress reports will be issues as needed.

1. Progress in relation to ability.
2. Progress in relation to standards.
3. Need for improvement.
4. Effort and attitude.
5. Conduct and citizenship.
6. Need for a conference between the teacher and the parent.

Each level – elementary school, middle school, and high school – will use report forms designed for that particular age group and curriculum level.

## **HOMEWORK POLICY**

The Lynn School Committee recognizes that academic achievement is directly related to the amount of time and effort students spend learning to master a subject or skill both in school and at home.

Homework is an extension of academic activities begun in school by the student under the direction and guidance of his/her teachers and continued at home. If implemented effectively it can help students to increase academic achievement, become more responsible, self-directing, and independent learners, and most importantly, provide them with a mechanism for lifelong learning that will serve their "need to know and learn" long after they cease formal schooling. Formal schooling will end someday for all students; lifelong learning cannot.

Homework is essential to the continuing development of our students because it:

1. develops fundamental skills and processes (reading, writing, arithmetic, and thinking) through practice;
2. provides an opportunity to review subject matter taught in class;
3. helps students to formulate questions to ask in class;
4. encourages students to solve problems independently;
5. teaches students that learning is not done only in classrooms;
6. establishes lifelong learning patterns that will be of value long after schooling is completed;
7. helps develop responsibility, organization, time management skills, and self-discipline;
8. involves parents in their students' learning and school life;
9. Increases the amount of actual instructional time students spend learning a skill or subject matter.

In order for our student to derive the full benefits from homework, the committee acknowledges that students, teachers, and parents must complete certain tasks consistently every day. Therefore,

**STUDENTS** are encouraged and expected to:

1. know the homework assignments before leaving school every day and do their homework themselves;
2. pass their homework in on time, correct, complete, and legible;
3. Ask questions if the knowledge and/or skill to be mastered is not fully understood.

**TEACHERS** are encouraged and expected to:

1. Make homework an integral part of their instructional program. Expect that homework will be completed and passed in on time. Use homework in class. Return homework to the students.
2. Give homework assignments that are:
  - a. Related to work done or to be done in class
  - b. Clearly understood by all students
  - c. Of reasonable length, variety, and complexity
  - d. Challenging but not discouraging
  - e. Factored into the course grade (Homework counts!!)
3. Confer with parents about the homework policy, the teacher's with expectations, and the role of the parents in insuring that the policy is implemented effectively
4. Notify parents if homework is not done as required; especially if there is an abrupt change in a student's homework completion behavior.
5. Regard homework as a learning aid and not as a form of punishment
6. Motivate student to complete their homework. Periodically take the time to explain the purpose of homework and its importance in the development of "the educated person"



PARENTS are encouraged and expected to:

1. Insure that their child does his/her homework.
2. Provide a quiet place free of distractions so that their child (ren) can do his/her homework.
3. Confer with their child's teacher(s) concerning the homework policy and the teacher's expectations.
4. Encourage their child to accept homework assignments as an important part of their education.
5. Support the efforts of the teachers and other school personnel in motivating your child to complete homework satisfactorily.
6. Motivate their child (ren) via frequent discussion and example to perform satisfactorily in school.

Given the benefit of homework as outlined above, the homework policy for the Lynn Public Schools is as follows:

## **Elementary Level (K-5)**

Major subjects at the elementary level (K-5) are: reading, language arts, math, science, social studies.

Homework shall be given in major subjects every day (i.e., possibly two per day) and in all other subjects a minimum of three days a week. Specific assignments of major subjects on a given day shall be determined by the teacher.

Homework may be assigned over the weekend, recess periods, and holidays at the discretion of the teacher. It is encouraged that homework be assigned on the weekend and, to some extent, during long recess periods.

## **Secondary Level (6-12)**

Major subjects at the secondary level (grades 6-12) are: English, Math, Science, Social Studies, Instructional Technology, and Foreign Language.

Homework shall be given in major subjects every day (i.e., possibly three per day) and in all other subjects' minimum of three days per week. Specific assignments of major subjects on a given day shall be determined by the teacher(s).

Homework may be assigned over the weekend, recess periods, and holidays at the discretion of the teacher. It is encouraged that homework be assigned on the weekend and, to some extent, during long recess periods.

### **Average Time Allotments for Homework by Grade Level**

The average time allotment for assigned homework is:

<b><u>LEVEL</u></b>	<b><u>MINUTES/DAY</u></b>	<b><u>MINUTES/WEEK</u></b>
Kindergarten	Teacher discretion	Teacher discretion
Grade 1	10-15	50-75
Grade 2-3	20-30	100-150
Grade 4-6	45-60	225-300
Grades 7-8	60-75	300-375
Grades 9-12	75-90	375-450

It is anticipated that time allotments will vary depending upon the educational program and goals of each student and the judgment of individual teachers, about how much homework shall be required in a given subject matter area on a particular day. Some students or classes may require more time; others slightly less.

It is required, however, that the time allotted per week (MINUTES/WEEK) for homework as stated above be adhered to as closely as possible.

**Indeed, it is the expectation at the secondary level of honors students and a majority of the students enrolled in college courses and some business courses that these time allotments will be exceeded more often than not.**

## CLASS RANKINGS

The Lynn School Committee acknowledges that the primary purposes of ranking students within their class are:

1. To identify, recognize, and commend superior academic achievement within a class of students.
2. To assist the various financial aid and scholarship award's committees in determining which student should receive financial assistance to continue education.
3. To encourage students to take courses that challenges them to their highest potentials.
4. To assist post-secondary educational institutions in making admission decisions.

A student's rank in class shall be determined solely by his/her achievement in grades nine through twelve in the following academic disciplines:

- English Language Arts
- Social Studies
- History
- Mathematics
- Science
- Foreign Language
- Instructional Technology

No additional disciplines will be used in the determination of class ranking. Class rank shall be computed at the end of each quarter for each student in grades nine, ten, eleven, and twelve, and be cumulative through the senior year, inclusive.

- I. GRADE POINT AVERAGE** – Class Rank will be determined on the basis of each student's grade point average. In determining class rank, the following information will be used to compute each student's **Grade Point Average**:

- Course level (Advanced Placement, Honors)
- Course subject (e.g., English, Biology)
- Number of credits per subject taken
- Quarterly grade achieved (numerical)
- Course level factor

The **Grade Point Average** is a numerical value of the student's total grades averaged after adjusting for course level difficulties, course length, and actual achievement in each course. The greater the course level difficulty and the higher the grade earned results in a higher grade point average.

- II. COURSE LEVEL FACTOR** – In order to encourage students to enroll in courses that challenge them and require them to work to their full potential and to recognize and report real difference in achievement and course difficulty, the following system of course factoring shall be used:

COURSE	FACTOR
Advanced Placement	$4.0 + 1.0 = 5.0$
Honors	$4.0 + 0.5 = 4.5$
College - etc.	4.0

Each grade earned will be multiplied by the appropriate course factor depending upon the difficulty level of the course taken.

### **III. COMPUTATION OF GRADE POINT AVERAGE**

- Step 1:** A quarterly numerical grade for each student shall be computed for each course taken within the approved academic disciplines. Failing grades shall be included.
- Step 2:** Each grade shall be multiplied by its appropriate course level factor.
- Step 3:** The sum of the weighted grades shall be divided by the total number of course credits earned to determine the grade point average.

### **IV. DETERMINATION OF CLASS RANK**

All grade point averages (GPAs) within a class (e.g., seniors) shall be ranked from high to low and assigned a rank beginning with one (1) for the highest GPA and descending down the numerical scale until all GPAs have received a rank.

The senior student who has earned the class rank of one (1) shall be named Valedictorian. The student who has earned the class rank of two (2) shall be Salutatorian.

When ties occur, computation of the grade point averages will be extended to the third decimal place. If ties cannot be broken in this manner, then students with equivalent GPAs (to the third decimal place) will have earned the same rank and their names shall be listed alphabetically. The number of the next rank will be the next number in the count of students. For example, if three students tie for fifth place, all will be ranked as fifth. The next person will be ranked eighth.

For inclusion in class rank; a student must have spent a minimum of four high school semesters within the Lynn Public Schools.

For students who did not fulfill the four-semester requirement, and who need to be ranked for college admission and/or scholarship purposes, class rank will be reported from their prior school and/or an approximate percentile ranking in our senior class will be reported.

Special Education and English Learners (EL) students under a ruling by the U.S. Department of Education, Office for Civil Rights (OCR) cannot be excluded from inclusion in Class Rank, although the same weighted grading system utilized for regular education students must be employed. The only exception allowed by the OCR is for SPED students enrolled in substantially separate needs classes. The OCR rationale for this is class rank, which applies only to regular education academic and non-academic courses, not for substantially separate courses at the secondary level.

## INSTRUCTIONAL LEVELS

All courses provide each student maximum opportunity for achievement commensurate with their ability, performance, and academic goals. Students are encouraged to select a course of study, based upon realistic self-assessment that is consistent not only with their current academic goals and future aspirations, but also their motivation to succeed and put forth their best effort.

Three instructional levels are offered at Lynn Classical and Lynn English High School. They are:

**HONORS**: Honors level courses are designed for the academically talented student who has consistently demonstrated the ability and intrinsic motivation to achieve a high degree of success in a rigorous academic program. This student is also committed to continuing his/her formal academic learning in a post-secondary institution. Honors programs are available in the following areas: English, Social Studies, Mathematics, Science, and Foreign Languages. Curriculum requirements will include more demanding classroom assignments, longer homework preparations periods, and some independent study. Minimum requirements for entrance into an honors course include a B average in any prerequisite courses and prior departmental approval.

**COLLEGE**: College level courses are designed for the above average to superior student who has consistently demonstrated the ability and motivation to achieve success in a rigorous academic program. This student is also committed to continuing his/her formal academic learning in a post-secondary institution.

It is extremely important that the student's senior high school program of studies be planned carefully. Parents and students should not hesitate to consult with school principals, guidance counselors, department heads, and teachers for advice and counsel.

**ADVANCED PLACEMENT**: Advanced Placement and honors level programs are available for academically talented students in the following areas: English, social studies, mathematics, science, and foreign language. Curriculum requirements include more demanding classroom assignments, longer home preparation periods, and some independent study. These programs prepare students to take the College Entrance Examination Board Advanced Placement Tests in their respective fields.

### Prerequisite for Advanced Placement Program

Minimum requirements for entrance into an advanced placement course (the course equivalent of a first semester college offering) include a **B+** average in any prerequisite high school course and prior appropriate department approval.

### Prerequisites for Honors Level Courses

#### **HONORS ENTRY**

- Must meet the appropriate entrance examination and departmental requirements.

#### **HONORS CONTINUATION**

- **B** or better average in subject area from previous year and departmental requirements.

#### ***Please Note:***

Not maintaining minimum standards in Advanced Placement of Honors level courses for the first quarter may result in a student's schedule being adjusted appropriately.

## RECOGNITION OF STUDENT ACHIEVEMENT HONOR ROLLS

In recognition of student achievement in the academic disciplines, school citizenship, and responsible behavior, all students in grade kindergarten through grade twelve who meet the standards as described below shall receive the following recognition:

### HONOR STANDARD

#### **HIGH HONORS**

This is the highest academic honor. The student has attained excellence.

A student must receive all A's in all subjects except one minor subject. In the one minor subject excepted, the grade shall be not less than B-. Conduct and effort ratings shall be satisfactory (no comment code in 50, 52, 60 or 62).

#### **HONORS**

This is a prestigious honor. The student's performance is very good to excellent. A student must receive all A's and B's in all subjects. In addition, at least one A must be in a major subject. Conduct and effort ratings shall be satisfactory (no comment code in 50, 52, 60 or 62).

#### **COMMENDABLE**

This is a commendable achievement. The student's performance is consistently satisfactory to very good. A student must receive all A's B's and C's in all subjects. No grade shall be less than C-. Conduct and effort ratings shall be satisfactory (no comment code in 50, 52, 60 or 62).

**SPECIAL MENTION** This is a special award. The student's performance is, for the most part, satisfactory to good. No grade shall be less than a D-. Conduct and effort ratings shall be satisfactory (no comment code in 50, 52, 60 or 62).

Appropriate recognition of students meeting the standards as described above shall be provided by the principal.

The principal shall provide his/her high honors roll to the associate Superintendent for educational development at the end of each grading period for presentation to the Superintendent and public recognition before the School Committee.

File: IKE-E

## **PROMOTION AND RETENTION OF STUDENTS**

The School Committee is dedicated to the best total and continuous development of each student enrolled. The professional staff is expected to place students at the grade level best suited to them academically, socially, and emotionally.

In evaluating student achievement, each teacher will make use of all available information, including results of teacher-made tests and other measures of skill and content mastery, standardized test results, and teacher observation of student performance. The principal will direct and aid teachers in their evaluations and review grade assignments in order to ensure uniformity of evaluation standards.

Students will normally progress annually from grade to grade. Exceptions may be made when, in the judgment of the professional staff, such exceptions are in the best educational interest of the students involved. Exceptions will only be made after prior notification and explanation to each student's parents, but the final decision will rest with the building principal.

File: IKE-E

No student shall be retained in the same grade for more than two years unless the principal determines that the student should be retained in his/her current grade for a third year due to failure to satisfy the academic standards for the grade.

No student shall graduate from high school without the required number of credits (English and Classical High schools - 100 credits; LVTI - 100 credits).

Parents of secondary students who wish their children promoted against the recommendation of their children's teachers and principal shall have the same appeals process available to them as the parents of elementary students.

### **LYNN PUBLIC SCHOOLS WAIVER OF PROMOTION REQUIREMENT**

I, \_\_\_\_\_, parent/legal guardian of \_\_\_\_\_,  
a student in grade \_\_\_\_ at the \_\_\_\_\_ School waive the promotion requirement established  
for my child at his/her current grade level. It is my wish that my child be promoted to grade \_\_\_\_ at the end  
of this school year.

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

DATE NOTARIZED: \_\_\_\_\_

## GRADUATION REQUIREMENTS

Graduation from the Lynn Public Schools signifies that a student has satisfactorily completed the prescribed courses as established by the Lynn School Committee in accordance with the laws of the Commonwealth of Massachusetts. In order to graduate from Lynn English High School, Lynn Classical High School or Lynn Vocational Technical Institute, a student must earn a minimum of one hundred (100) credits.

In order to graduate from Lynn English High School or Lynn Classical High School a student must earn a **minimum of one hundred (100) credits and pass MCAS in English, Mathematics & Science.**

In order to participate in graduation ceremonies, senior students must have:

- A minimum of **100** credits for graduation.
- Pass MCAS in both the English and Mathematics, and Science.
- Successfully completed all academic requirements for graduation by the last school day for seniors.
- Satisfied all financial obligations to the Lynn Public Schools no later than five (5) calendar days after the last day for seniors.

COURSE	REQUIREMENT
English	4 yrs.
Mathematics	4 yrs.
Science	4 yrs.
History/Social Studies	4 yrs.
Foreign Language	Minimum of 2 yrs.
Computer Literacy	.5 yr.
Physical Education	4 yrs.
Health	.5 yrs.

- All credits shall be earned by satisfactorily **passing** required and elective courses offered by any department.
- All students are required to pass a **minimum** of **25** credits in each of their four (4) years of high school.
- All students will be scheduled for a **minimum** of **30** credit hours each year.

### Credits:

A total of **25** credits per year are needed for promotion to the next grade; **100** credits are needed in order to graduate.

***AS WRITTEN IN POLICIES ONLINE - In order to graduate, students must meet all other state and local graduation requirements, which may include, but not be limited to, performance at or above the established uniform known statewide levels of proficiency on a required examination.***

### Suggested Programs

In addition to academic courses, students should include electives to help them become more independent and to pursue creative interests (see electives).

STUDENTS ARE ENCOURAGED TO ATTAIN THE MAXIMUM NUMBER OF ACADEMIC CREDITS AVAILABLE AND ARE EXPECTED TO ATTAIN MORE THAN THE MINIMUM NUMBER OF CREDITS REQUIRED.



## **GRADUATION EXERCISES**

The date of the high school graduation exercises will be scheduled for not more than 12 school days prior to the end of the school year, in compliance with state law.

A student must have completed all requirements for graduation to receive a diploma at graduation exercises.

Final plans such as outside speakers and when, where, and in what manner the graduation ceremonies will be held will be subject to the approval of the School Committee.

LEGAL REF.:M.G.L. Chapter 71:4

## **GRADUATION REQUIREMENTS - SPECIAL EDUCATION STUDENTS**

The Graduation Requirements for students receiving special education services shall be follows:

If the special education child is 14 years or older and is expected to graduate, then graduation criteria and a plan for meeting such criteria shall be included in the child's Individualized Education Plan (IEP). Testing shall be carried out to provide information on the basic items of (1) learner education needs, and (2) learner educational achievement.

Testing programs shall be used as integral parts of the needs assessment and evaluation programs. They shall be developed primarily for furnishing needed information to decision makers, including the School Committee, administrators, teachers, parents and students. The needs of these various users shall be clearly identified and the testing program shall be limited to obtaining that information which is needed and useful. The director of curriculum is responsible for the organization, implementation, and interpretation of the systems' standardized testing program.

LEGAL REFS: M.G.L. 71B:7

Board of Education Regulations for Implementation of the Basic Skills Improvement Policy, adopted 1/23/79 Ch. 188 of the Acts of 1985

## PLAGIARISM & CHEATING

Plagiarism is considered a form of cheating, it is addressed in the Lynn Public School's Discipline Policy (*Section 2.0*). With expanding student use of the Internet and other electronic sources of information, plagiarism has become a growing concern at both local and national levels.

Plagiarism may be defined as, but not limited to, situations in which students engage in the following actions:

1. Copying part or all of the work of another student.
2. Allowing work to be copied by another student.
3. Quoting directly without properly citing a source, including the Internet.
4. Claiming the work of another as his/her own.

### **Discipline Policy; Section 2.0 School Incidents**

#### 2.0 School Incidents

The following infractions may result in: after school detention, Saturday detention, lunch detention, parent conference, suspension and/or academic consequences (i.e. failure on assignment)

- 2.1 Cheating
- 2.2 Forgery of School Documents
- 2.3 Disruptive Behavior
- 2.4 Continual Misbehavior
- 2.5 Refusal to Meet Minimum Standards of the Class
- 2.6 Failure to Return Loaned School Equipment, Books or Any School Property  
*\*\*please note that this incident may also lead to a report filed with the appropriate legal authorities*
- 2.7 Failure to Report back to Teachers (Non-Academic)
- 2.8 Insubordination
- 2.9 Sent to Office Twice in One Day

## LANGUAGE SUPPORT PROGRAM

The role of the Language Support Office is to determine the appropriate level of academic support for each English Learner in the Lynn Public Schools. WIDA (World Class Instructional Design and Assessment) assessments are used to identify a student's English language proficiency level and determine which supports and class settings are most appropriate for individual student success. According to WIDA guidelines, English Learners progress through six levels of language proficiency: Entering, Emerging, Developing, Expanding, Bridging, and Reaching.

The following class settings are offered in the Lynn Public Schools for identified English Learners:

1. **Sheltered English Instruction (SEI) Classes** - EL students receive grade-level content by SEI-endorsed core-academic teachers using SEI knowledge and strategies to support access to the academic content and promote the development of academic English.
  - a. **ESL Classes:** EL students in SEI classes will also receive direct ESL instruction from an ESL teacher to advance English language proficiency. This includes social and academic language in listening, speaking, reading, and writing.

The Language Support Office also monitors students who are designated as Formerly EL for four years.

## SPECIAL EDUCATION PROGRAMS

Special Education Programs in Lynn are designed to service children between the ages of 3 and 21 who have been identified as having special needs.

Students may be referred for a special education evaluation by parents, school personnel, the courts, human service agencies, and physicians.

The Special Education services that are provided in an individual or small-group setting and inclusionary settings in the schools are as follows:

<ul style="list-style-type: none"> <li>• Early Childhood Programs</li> <li>• Vision &amp; Mobility Services</li> <li>• Specialized Nursing Services</li> <li>• Speech &amp; Language Therapy</li> <li>• Support Services – out of school; hospital programs; home tutoring</li> </ul>	<ul style="list-style-type: none"> <li>• Academics; via learning centers, resource rooms, and alternative elementary and secondary school settings</li> <li>• Services for Hearing Impaired Students</li> <li>• Occupational Therapy</li> <li>• Physical Therapy</li> <li>• Contractual Services – May Center, N.S. Consortium, Raw Arts, Work Opportunities, Northeast ARC</li> </ul>	<ul style="list-style-type: none"> <li>• School Adjustment Counselors</li> <li>• Adaptive Physical Education</li> <li>• Behavior Specialists</li> <li>• School Psychologists</li> <li>• The Chapter 766 Parent Advisory Council meets monthly for supportive and exucational programs</li> </ul>
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### Special Education Specialized Programs include:

- The **C.O.A.C.H.** Program – *Creating Opportunities for Autistic CHildren*
- The **T.A.S.C Program**–*Therapeutic and Academic Support Classrooms*
- Ten **T.E.A.M.S.** Program – *Together Educating and Advancing Multi-disabled Students*
- The **Fallon School**– servicing students in grades PreK-6 with acute emotional disabilities
- **Fecteau Leary Jr. /Sr. Alternative High School**–servicing students in grades 7-12 with acute emotional disabilities
- **Fresh Start Program**–services students with mild disabilities 18-22 with transitional skill building, social and vocational skills

# REQUIREMENTS FOR ADMISSION TO MASSACHUSETTS STATE COLLEGES & UNIVERSITIES

Subject	Requirement for college freshman class entering...					
	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017 and beyond
English	4 courses					
Mathematics	3 courses (Algebra I & II and Geometry or Trigonometry or comparable coursework)				4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics during the final year of high school	
Sciences	3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering; including 2 courses with laboratory work); <i>Technology/engineering courses must be designated as science courses (taken for science credit) by the high school</i>					3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering), including 3 courses with laboratory work
Social Sciences	2 courses (including 1 course in U.S. History)					
Foreign Languages	2 courses (in a single language)					
Electives	2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)					

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

The GPA must be achieved based on all college preparatory courses completed at the time of application and should be weighted for accelerated (Honors or Advanced Placement) courses. The required minimum weighted high school GPA is 3.0 for the four-year public campuses.

State University GPA	University of Massachusetts GPA
3.00	3.00

### *SAT Scores*

Applicants who meet the GPA requirement do not have to use the sliding scale for admission, but still must submit SAT or ACT test scores for consideration if they are applying to a state university or UMass within three years of high school graduation.

### *Sliding Scale (used when GPA is lower than the minimum required GPA)*

If an applicant's GPA falls below the required minimum, a sliding scale will apply. *This scale should be used only when an applicant's GPA falls below the required 3.0 minimum for admission to the state universities or UMass.*

Scores on the new writing section of the SAT will not affect the sliding scale for freshman applicants to the Massachusetts state universities and to the University of Massachusetts at this time. The sliding scale, used in making admissions decisions for students with high school grade point averages falling below the required minimum, will continue to be based upon the combined critical reading (verbal) and math sections of the SAT.

### ***Sliding Scale for Freshman Applicants to UMass***

Weighted High School GPA	Combined SAT-I V&M Must Equal or Exceed (ACT Equivalent in Italics)
2.51-2.99	950 (20)
2.41-2.50	990 (21)
2.31-2.40	1030 (22)
2.21-2.30	1070 (23)
2.11-2.20	1110 (24)
2.00-2.10	1150 (25)

**NO APPLICANT WITH A HIGH SCHOOL GPA BELOW 2.00 MAY BE ADMITTED TO A STATE UNIVERSITY OR UNIVERSITY OF MASSACHUSETTS CAMPUS.**

***Sliding Scale for Freshman Applicants to a State University***

Weighted High School GPA	Combined SAT-I V&M Must Equal or Exceed (ACT Equivalent in Italics)
2.51-2.99	920 (19)
2.41-2.50	960 (20)
2.31-2.40	1000 (21)
2.21-2.30	1040 (22)
2.11-2.20	1080 (23)
2.00-2.10	1120 (24)



**MASSACHUSETTS STATE UNIVERSITIES AND UMASS  
NEW ADMISSIONS STANDARDS**

**COLLEGE PREPARATORY COURSES  
WEIGHTED GRADE POINT AVERAGE REQUIREMENT**

The admissions standards stipulate minimum required high school grade point averages for freshman admission as follows:

Effective Date	State University GPA	University of Massachusetts GPA
Fall 2001	3.00	3.00

Grade point averages are to be calculated based upon grades earned in all college preparatory courses. Grades earned in honors, Advanced Placement or Dual Enrollment courses should be given extra weight.

**Each state university or UMass campus to which a student applies will calculate the GPA for purposes of applying the admissions standards.** Because students also may wish to calculate their own GPA, the following information is provided.

To calculate a weighted GPA, individuals must convert each final grade earned in college preparatory courses to a 4-point grading scale (where "A"=4.0; "B"=3.0; "C"=2.0; "D"=1.0 and "F"=0.0). A chart is provided with these materials so that letter or numeric grades may be converted. Further, each course must be identified as college preparatory, honors level, or Advanced Placement. Descriptions of these course levels are provided to assist with proper identification of courses. Full-year honors level and Advanced Placement courses will receive an extra .5 and 1.0 points on the 4-point scale, respectively. A dual enrollment course will receive an extra 1.0 point on the 4-point scale.

Computer software for use in calculating the weighted GPA also is available on-line via the Department of Higher Education web site. Step-by-step instructions are listed on the next page.

**All applicants must have a weighted high school GPA.** Schools with uncommon grading/evaluation schemes should develop a conversion to letter grades. (See page 15.)

### Calculating the weighted GPA

Use the following steps to complete the weighted GPA calculation:

- Step 1. Convert each final grade to its equivalent on the 4.0 scale.
- Step 2. Weight grades by adding .5 to each converted grade earned in an honors level course, and 1.0 to each converted grade earned in an Advanced Placement or Dual Enrollment course.
- Step 3. Multiply each converted grade or, if applicable, each weighted grade by the course credits earned. (Where a full-year course equals one unit; a semester course equals .5 units; a quarter course equals .25 units; etc.)
- Step 4. Total the products from Step 3.
- Step 5. Divide total from Step 4 by total number of course credits attempted.
- Step 6. Quotient is the student's weighted GPA.

NOTE: Students probably will not have completed all 16 required college preparatory courses prior to applying to college, particularly in English, where four years are required. GPAs should be based upon all completed college preparatory courses for which students are able to report final grades.

The 16 required college preparatory courses are:

- ♦ English 4 years
- ♦ \*Mathematics 3 years (Algebra I & II, Geometry/Trigonometry, or comparable coursework)
- ♦ \*Sciences 3 years (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering, including 2 courses with laboratory work)
- ♦ Social Sciences 2 years (1 year of U.S. history)
- ♦ Foreign Language 2 years (in a single language)
- ♦ Electives 2 years (choose from subjects listed above or from the Arts & Humanities and/or Computer Sciences)

#### \*Note

##### Mathematics

Effective for the freshman class entering fall 2016: Mathematics, 4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics during the final year of high school.

##### Sciences

Effective for the freshman class entering fall 2017: Science, 3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering), including 3 courses with laboratory work. Technology/engineering courses must be designated as science courses (taken for science credit) by the high school.

**NOTE: The weighted GPA should be based on final grades earned in all college preparatory courses. Grades earned in courses that are not college preparatory may not be used to calculate the weighted GPA.**



## **SUMMER SCHOOL**

### **Lynn Public Schools Summer School Policy and Procedures**

#### ***Introduction to Summer School***

Summer School provides middle school and high school students the opportunity to recover courses failed over the course of the school year or to take courses for original credit to regain tracking for on-time graduation. Due to the web-based nature of digital curriculum, students work on the assignments outside of school in addition to required scheduled time in school in order to complete course-work.

#### ***Overview***

In blended classrooms, students interact with digital curriculum and receive individualized support from a teacher. Because students engage in a self-directed program, teachers may differentiate instruction for each student by utilizing data to identify areas of weakness, and develop instructional interventions including small-group and individual direct instruction. This teacher-support leads to improved learning outcomes. Each summer school course will have content-specific teachers on-site to supplement the digital curriculum, and these teachers will also be certified in APEX.

#### ***Enrollment Information:***

##### ***Submit Application***

Students may begin registering for summer school on June 1<sup>st</sup>. A registration application will be made available at the office of each high school as well as on the Lynn Public Schools website. Lynn Tech and Fecteau-Leary students may register for either the Lynn Classical or Lynn English program.

Refer to the application form for program specifics, dates, and times.

##### ***Program Fees***

Payment for summer school is cash or money order made out to *Lynn Public Schools*.

- \$125/one course and \$25 for each additional course (LPS students).
- \$200/one course and \$25 for each additional course (non LPS students).
- LPS students with extreme financial hardship may petition to the Offices of the Deputy Superintendents for assistance.

#### ***Scheduling***

Days and Hours of Operation: Monday through Thursday, 8:00 AM to 12:00PM. Please refer to the application form for the starting date.

Schedules will be provided to all students on day one. All courses are expected to be completed within the summer school time frame.

#### ***Expected Attendance***

Students must attend **one hour each day** for each assigned subject (English, Math, Science, History) until they finish the course.

#### ***Middle School***

All middle school summer school classes will take place at Lynn Classical High School. Middle school students will register at Lynn Classical during open enrollment which begins on June 1<sup>st</sup> and ends the day before summer school begins.

#### ***Course Completion and Grades***

Students will be issued a final grade upon completion of the course. This course will be posted on the student's transcript. The grade does not count towards the student's cumulative average. Non-LPS students will receive a letter of successful course completion to present to their own schools.

**Adopted by the Lynn School Committee on June 9, 2016 – Revised Policy**

## RECOGNITION OF STUDENT ACHIEVEMENT

In recognition of student achievement in the academic disciplines, school citizenship, and responsible behavior, all students in grades kindergarten through grade twelve who meet the standards as described below shall receive the following recognition:

HONOR	STANDARD
<b>HIGH HONORS</b>	This is the highest academic honor. The student has attained “excellence.” A student must receive all As in all subjects except one minor subject. In the one minor subject excepted, the grade shall be not less than B-. Conduct and effort ratings shall be satisfactory (no comment code in 50, 52, 60 or 62).
<b>HONORS</b>	This is a prestigious honor. The student’s performance is very good to excellent. A student must receive all As and Bs in all subjects. In addition, at least one A must be in a major subject. Conduct and effort ratings shall be satisfactory (no comment code 50, 52, 60 or 62).

## **COURSE SELECTION: The Key to a Student's Future**

Course planning is really life planning and to do this YOU must accept the responsibility and learn as much as possible about the course requirements, graduation needs, your interests and abilities, and career information. By doing this you will be able to take advantage of your school's curriculum and make meaningful and wise course selections. The rest of your life depends on you organizing a plan of action. To achieve career goal you must know where you are going and set your sights high. Nevertheless, you must also be realistic. This requires matching your aptitudes, interests, and abilities.

We are proud to present our curriculum on the following pages. These courses will assist you in preparing for the future. Take time to select your classes carefully. Please ensure that your academic program meets scholastic demands, graduation requirements, and future goals. Your guidance counselor and the entire staff are ready to assist you in this important process. Please discuss your selections with them. Take time to share this information with your parents and involve them in the subject selection process.

As we enter the 21<sup>st</sup> century, you need to prepare yourselves in order to be successful in a society that is ever changing. This subject selection process is an important step towards that preparation. Our mission in the Lynn Public Schools is to meet your educational needs in a supportive, educationally rich environment. We want to provide you, our students, with the skills, which will enable you to be successful in the future.

This curriculum bulletin was designed with parents and students in mind. We hope you will find it helpful and easy to use. Students are to study this bulletin carefully. You will have ample opportunity to discuss your schedules for next year with your teachers and counselors. Furthermore, we strongly encourage our students to discuss their subject choices with their parents.

Please be advised that every effort will be made to meet students' requests. However, there will be a need for some compromise as no one can guarantee an absolute perfect school schedule.

In summary, the Lynn Public Schools offers a wide range of opportunities, which you can use to help prepare for your future. Selecting courses is serious business. It is the first significant step leading toward a happy, productive career. Remember to maintain close contact with your parent(s)/guardian(s), teachers, and your school counselor. They will provide you direction and encouragement.

Under the provisions of the Every Student Succeeds Act, high schools are required to furnish student contact information of all juniors and seniors to military recruiters. Parent/guardians may "opt out" of this by furnishing the principal a written request not to have their student's information provided.

## ENGLISH

### Guidelines for Course Placement

All students should be in a program that is realistically challenging. Students who have ability but have failed to demonstrate that ability should be placed at a level at which they will be significantly challenged.

Honors English students at all three high schools are those who thrive on academic challenge, enjoy reading, and pursue that interest beyond the classroom. Such students readily accept new procedures and master new material easily. Self-motivation, diligent work habits, and strong verbal aptitude characterize candidates for honors courses. Students at this level should have obtained a score of Proficient or Advanced in MCAS, score in the top 15% of their class on standardized tests, rank in the top 15% of their class, have earned an English grade of A- or better at the college preparatory level (B+ or better at the Honors level), and have the approval of the Department Head. Other criteria to be considered include reading levels and satisfactory writing folders. A's and B's in College Preparatory English, however, do not necessarily indicate that an individual student has the intellectual maturity and skills for honors level.

Students who do not meet these criteria will enroll in the college preparatory program.

<b>LY100 HONORS ENGLISH 9</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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Ninth grade honors level is designed to meet the comprehensive needs of college bound students who have maintained the highest level of academic achievement during the middle school years. Students will be required to read widely and to think intelligently and critically. The successful student loves to read, does not consider reading to be a chore, and has a high level of reading comprehension. S/he is willing to present ideas orally and in writing. Papers of up to one thousand words in length may be assigned. Reading, writing, speaking and listening form the core of this curriculum. The student should expect to have demands placed on his/her time, talent, and ability.

**Prerequisite:** A/B average in subject area from middle school and teacher recommendation.

<b>LY101 ENGLISH 9</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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This course provides the students with a foundation in the fundamentals of language, literature and composition. Course content includes literary genres and terms, including drama, poetry, fiction, and nonfiction. In addition, this course provides opportunities for students to practice the kinds of writing, the writing process, and to express themselves in a variety of modes.

<b>LY110 HONORS ENGLISH 10</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
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Tenth grade honors level students will be required to read a variety of genres and to write long and often. Library and literary research projects, class discussion, oral presentation, and student-centered learning activity form the core of this curriculum. While grammar and vocabulary are included, emphasis will be on reading and writing. Students should expect to finish an independent reading assignment about every six weeks, in addition to doing regular course work.

**Prerequisite:** B or better average in subject area from previous year and teacher recommendation.

<b>LY111 ENGLISH 10</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
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English 10 continues the study of language and usage, concentrates composition work on essay writing, and expands the in-depth study of literary genres. Reading, writing, speaking, and listening provide the platform for the development of more demanding and extensive writing assignments as well as for close reading and discussion of more difficult literary works.

<b>LY119 HONORS ENGLISH 11</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
This course is designed for students with demonstrated ability to perform and achieve at high levels. Oral and written expression should be well-developed, along with the ability to read widely and in-depth. Emphasis is on the study of American literature with particular attention given to major philosophical concepts and literary techniques. Library and literary research are required. Conventions of English language are reviewed, vocabulary study is included, and the study of rhetoric continues.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and teacher recommendation.</b>		
<b>LY121 ENGLISH 11</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
The purpose of this course is to achieve mastery of mechanics and usage through the practice of written and oral activities, to continue vocabulary development, to expand critical thinking skills, and to survey American literature. Learning research skills will be an important part of the writing program, and student-centered-learning activities will encourage continuing development of each individual's academic maturity.		
<b>LY130 HONORS ENGLISH 12</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
Designed for students who have demonstrated a love of reading, superior language skills and mature work habits, this course focuses on advancing reading and writing skills through a survey of English literature. Writing emphasis is on longer and more sophisticated expository writing projects, from the college essay to the research paper. Short critical papers, project based learning, and independent reading assignments are required, as are both individual and group presentations.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and teacher recommendation.</b>		
<b>LY132 ENGLISH 12</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course includes a survey of English literature as well as a study of the development of the English language from its beginnings to the present. Reading, writing, critical thinking and research skills will be refined and practiced throughout the year in a variety of literature and language activities.		
<b>LY136 AP ENGLISH LANGUAGE &amp; COMPOSITION</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
AP English Language and Composition develops students' abilities as independent readers and writers by giving them a college-level course during their junior year. Students who successfully complete the examination in May, may qualify for up to one year's credit in English at the college level. The purpose of the course is to increase comprehension of complex texts in American literature through an in-depth study of the structure and manipulation of language. Students will also practice writing effective expository, analytical, and argumentative pieces in a mature style. This intellectually challenging course includes extensive reading and writing. Students in this college-level course should expect demands to be made on their time. Students who sign up for AP Language and Composition are required to take the AP exam.		
<b>LY137 AP ENGLISH LITERATURE &amp; COMPOSITION</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
AP English Literature and Composition Class develop students' abilities as independent readers and writers by giving them a college-level course during their senior year. Students, who successfully complete the examination in May, may qualify for up to one year's credit in English at the college level. The purpose of the course is to improve students' literacy analysis skills through an in-depth study of world literature, with an emphasis on British literature. Advanced Placement English is both demanding and intellectually stimulating. It requires a student's best effort consistently and puts emphasis upon developing independence of thought and mature habits of critical thinking. Classroom discussion and active participation are vital. Written assignments, both short and long-term, will be an important and frequent feature of the course. Students who sign up for AP English are required to take the AP exam.		

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<b>LY141 SAT PREP: ENGLISH</b>	<b>2.5 CREDITS</b>	<b>GRADE 11</b>
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The SAT verbal course will focus on etymology and vocabulary skills and will also develop and enrich reading comprehension. In addition, students will become familiar with the latest test taking techniques and strategies. This course runs in tandem with SAT Prep Math.

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<b>LY133 LCHS MCAS ELA PORTFOLIO</b>	<b>2.5 CREDITS</b>	<b>GRADE 11-12</b>
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Appropriate for students in grades 11 & 12 who have yet to pass the ELA MCAS. Students will prepare a portfolio of their work for submission to DESE for the MCAS appeal process. Students who successfully pass the November retest may opt out of second semester and be rescheduled.

## MATHEMATICS

<b>LY300 HONORS ALGEBRA I</b>	<b>5.0 CREDITS</b>	<b>GRADE 9 &amp; 11</b>
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This is a first year algebra course designed specifically for academically talented 9<sup>th</sup> grade students. Topics include rational and irrational numbers and operations; linear, quadratic, exponential, trigonometric and rational functions; solving equations and inequalities; matrices, graphing and right triangle geometry; statistics, probability and data analysis. Problem solving and writing in mathematics are stressed. A variety of assessment strategies are employed in preparation for the state MCAS test.

**Prerequisite:** LCHS B (with teacher's approval) or better in 8<sup>th</sup> grade mathematics.

<b>LY301 ALGEBRA I</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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<b>LY304 ALGEBRA I</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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This is the introductory high school math class for those students who did not take algebra in middle school. Topics include rational and irrational numbers; operations; linear quadratic exponential, trigonometric, and rational functions; solving equations and inequalities; matrices; graphing, right angle geometry; statistics, probability, and data analysis. Problem solving and writing in mathematics are emphasized. A variety of assessment strategies are employed in preparation for MCAS.

<b>LY311 HONORS ALGEBRA II</b>	<b>5.0 CREDITS</b>	<b>GRADES 10 - 12</b>
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This course is for academically talented students who completed Algebra I and Geometry. Algebra II and trigonometry topics are covered in depth as well as statistics, probability, and data analysis. Emphasis is on functional notation and graphing. Problems are solved verbally, algebraically, numerically, and graphically. A graphing calculator is required.

**Prerequisite:** B-/C+(with teacher's approval) or better average in subject area from previous year

<b>LY312 ALGEBRA II</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
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This course focuses on increasing the students' understanding of algebraic concepts with a particular emphasis on functions, graphing and data analysis. Integrated topics include number sense, patterns, relations, functions, geometry, measurement, data analysis, statistics, and probability. A graphing calculator will be used.

**Prerequisite:** Geometry / Algebra I

<b>LY321 HONORS GEOMETRY</b>	<b>5.0 CREDITS</b>	<b>GRADES 9 – 10 - 12</b>
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This course is for the academically talented students who completed Algebra I in grade 8. Focus of the course is geometry and spatial sense, geometry from an algebraic perspective, and measurement. Students will analyze characteristics of two and three dimensional objects; use different representational systems, including coordinate geometry and graph theory; use transformations and symmetry in analyzing mathematical situations; use visualization and spatial reasoning to solve problems both within and outside of mathematics. Students will study attributes, units and systems of measurement and apply a variety of techniques, tools, and formulas for determining measurement. Essential tools used include a ruler, protractor, compass and scientific or graphing calculator.

<b>LY322 GEOMETRY</b>	<b>5.0 CREDITS</b>	<b>GRADES 10 &amp; 12</b>
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This course provides students with an understanding of geometry and spatial sense, geometry from an algebraic perspective, and measurement. Students will analyze characteristics of two and three dimensional objects; use different representational systems, including coordinate geometry and graph theory; use transformations and symmetry in analyzing mathematical situations; use visualization and spatial reasoning to solve problems both within and outside of mathematics. Students will study attributes, units and systems of measurement and apply a variety of techniques, tools, and formulas for determining measurement. Essential tools used include a ruler, protractor, compass and scientific or graphing calculator.

**Prerequisite:** Algebra I

<b>LY323 GEOMETRY I</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course is essentially the same as Geometry but the materials and teaching approach are designed for juniors and seniors. Since geometry is a major component in Grade 10 MCAS, particular attention is paid to assisting students who may be having difficulty preparing for MCAS.		
<b>LY329 PRE-CALCULUS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course combines the trigonometric, geometric, and algebraic techniques needed to prepare for the study of calculus and strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems. Topics include the complex number system, vector and matrix quantities, polynomial and rational expressions and equations, interpreting and building functions, trigonometric functions, right triangle geometry and conic sections. Ability with these topics is especially important for students intending to study calculus, physics, and other sciences, and/or engineering in college. <b>Prerequisite: Algebra II(C+ or better)/Geometry</b>		
<b>LY331 HONORS PRE-CALCULUS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course is designed to give students a thorough preparation in the topics needed for the study of calculus. Topics include advanced algebra, geometry, trigonometry, analytic geometry, elementary functions including linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise defined. The graphing calculator is an integral part of the course. <b>Prerequisite: B-/C+(with teacher's approval) or better average in subject area from previous year.</b>		
<b>LY332 HONORS CALCULUS</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course features an enhanced problem solving focus that encourages the student to look at problems numerically, graphically, and analytically. Trigonometric functions are presented in the prerequisites, and then used throughout. Extensive real-life applications using real-world data are included throughout the course. Topics included limits and their properties, differentiation, applications of differentiation, integration, logarithmic, exponential and other transcendental functions, and integration techniques.		
<b>LY 333 MCAS MATH PORTFOLIO</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
Appropriate for students in grades 11 & 12 who have yet to pass the Math MCAS. Student will prepare a portfolio of their work for submission to DESE for the MCAS appeal process. Students who successfully pass the November retest may opt out of second semester and be rescheduled.		
<b>LY166 ADVANCED PLACEMENT CALCULUS</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
The Advanced Placement (AP) Program gives students the opportunity to pursue college-level studies in high school and to receive advanced placement, college credit, or both in college. Students prepare for the AP Calculus examination in May using the Calculus AB syllabus. Students should be able to work with functions represented in a variety of ways, understand and use derivatives to solve a variety of problems, understand the definite integral as the limit of Riemann sums and use to solve a variety of problems, understand the Fundamental Theorem of Calculus, communicate mathematics orally and in written form, use technology to solve problems, experiment, interpret results, and verify conclusions. <b>Prerequisite: Pre-calculus and department approval</b>		
<b>LY341 LCHS ALGEBRA III &amp; TRIGONOMETRY</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This is a course in advanced algebra topics and trigonometry for the college bound student who has successfully completed Algebra II and Geometry. Topics include algebraic equations and inequalities, patterns and functions including polynomial functions, rational functions, conic sections, exponential and logarithmic functions, trigonometric functions, analytic geometry, systems of equations and inequalities, matrices and determinants, sequences, data analysis, and probability. <b>Prerequisite: Algebra II / Geometry</b>		



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<b>LY342</b>	<b>DISCRETE MATHEMATICS</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
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Discrete Mathematics is a semester course that focuses on the six unifying themes specified by the National Council of Teachers of Mathematics Curriculum Standards: modeling, use of technology, algorithmic thinking, recursive thinking, decision making, and mathematical induction. Topics include voting methods, fair decision schemes, apportionment methods, circuits and networks, graph theory and trees, scheduling problems, and growth and symmetry including fractal geometry. A graphing calculator is suggested.

**Prerequisite: Algebra II and Geometry**

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<b>LY 345</b>	<b>PROBABILITY &amp; STATISTICS</b>	<b>2.5 CREDITS</b>	<b>GRADE 12</b>
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This is a semester course in statistics. The focus of the course is on data analysis and real-world applications. Aspects of statistics included are variation, data collection, graphic display of data, concepts underlying inference, and problem solving skills. Examples and exercises are based on realistic data drawn from a variety of disciplines. The graphing calculator is essential to the course.

**Prerequisite: Algebra II and Geometry**

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<b>LY344</b>	<b>SAT PREP MATHEMATICS</b>	<b>2.5 CREDITS</b>	<b>GRADE 11</b>
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SAT Math Prep is a semester course taken the semester opposite SAT English Prep. Students will review arithmetic, algebra, geometry, measurement, statistics, probability and discrete math. They will build on skills previously learned while working with patterns, functions, problem solving, and mathematical modeling. Student will learn test taking tips and strategies while using both scientific and graphing calculators.

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<b>LY350</b>	<b>LCHS ADVANCED MATHEMATICS</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
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This course is for seniors who have completed algebra III, but will not be taking calculus. The course will include and reinforce topics such as: conic sections, complex numbers in trigonometry form, matrices and linear algebra, linear programming (optimization and minimization), regressions, vectors, sequence and series, parametric equations, polar coordinates, 3-D coordinate system, and limits.

**Prerequisite: Must have passed Algebra III**

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<b>LY190</b>	<b>ADVANCED PLACEMENT STATISTICS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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The Advanced Placement (AP) Statistics Program allows students the opportunity to pursue college-level studies in high school and to receive advanced placement, college credit or both when they attend college. Students prepare for the AP Statistics examination in May using the statistics syllabus. The purpose of the AP course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data, Planning a Study, Anticipating Patterns and Statistical Inference.

**Prerequisite: B or better in Algebra II**

**CLASSICAL HIGH SCHOOL ONLY**

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<b>LY330</b>	<b>LCHS – DIFFERENTIAL CALCULUS</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
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A study of differential calculus. Topics include: functions, limits, differentiation of algebraic, trigonometric and inverse trigonometric, exponential and logarithmic functions, applications including related rates, curve sketching and optimization problems. **Textbook and Required *MyMathLab* Access**

**Prerequisite: Pre-calculus with a grade of C and or better and or recommendation of department chair**

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<b>LY352</b>	<b>LCHS – INTRO TO COLLEGE STATISTICS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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<b>LY400</b>	<b>LCHS – HONORS MATHEMATICAL BIOLOGY</b>	<b>5.0 CREDITS</b>	<b>GRADE 11-12</b>
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This interdisciplinary course provides an introduction to the application of mathematical tools and techniques in biology. The course consists of topics chosen from computational biology, mathematical epidemiology, and ecology, with a focus on how mathematical analysis can add to our knowledge of these topics. Students will be introduced to various mathematical approaches to analyze data and will gain experience choosing and using appropriate mathematical methods to best interpret the data.

**Prerequisite: Honors Algebra II and Biology I; or Department Head Approval.**

## SCIENCE

The science curriculum in the Lynn Public Schools is designed to conform to the Massachusetts State Science and Technology Frameworks (May 2001). It is acknowledged that writing and developing critical thinking skills are essential parts of our curriculum.

Grade 9 and 10 classes, whether they are honors or college preparatory, are required to do a minimum of one John Collins writing assignment per quarter in preparation of MCAS testing. In addition, individual subject areas may require detailed written laboratory reports with summaries and conclusions that demonstrate a full and comprehensive understanding of the scientific concepts covered in the Massachusetts State Frameworks. An Honors student will spend a minimum of 45 minutes each night on science homework and will adhere to all of the above requirements.

*Note: For course selection purposes, each course is identified by course number, course name, credits, recommended grade level, and prerequisite course(s). All prerequisite courses for a given course selection must have a minimum passing grade or department head approval.*

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<b>LY401 HONORS BIOLOGY I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 9-10</b>
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This course places emphasis on the cell as the functional unit of life. The chemical and structural similarities of organisms are studied from the lowest form of plant life and animal life to the human individual. The interactions are tailored to complement various concepts of biology, which are studied in-depth by the student. Instruction conforms to the Life Science standards in the Massachusetts State Frameworks.

**Prerequisite:** Must meet departmental requirements.

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<b>LY402 BIOLOGY I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 9 -10</b>
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This course is designed to introduce students to basic biological principles. The major focus of instruction is upon the "living condition." A wide variety of topics are covered giving students a solid foundation of knowledge upon which they may base future study. This course also includes laboratory work that introduces students to many of the technological skills involved in the study of life sciences. Instruction conforms to the Life Science standards in the Massachusetts State Frameworks.

**Prerequisite:** Intro to Biology

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<b>LY403 BIOLOGY II w/ lab</b>	<b>6.0 CREDITS</b>	<b>GRADE 10</b>
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This course explores major concepts in evolution and the diversity of life. The course focuses on the evolution of and the anatomy and physiology of organisms from the 6 kingdoms of living things. The course revolves around the themes of evolution and structure being related to function.

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<b>LY120 AP BIOLOGY w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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This course conforms to the advanced placement biology curriculum. Students are exposed to the full range of topics that would typically be presented at an introductory college level. Laboratory exercises involve instruction in the use of a variety of data gathering and analysis techniques. All students taking this course are required to conduct an independent research project and have the opportunity to take the advanced placement exam.

**Prerequisite:** Biology I / Chemistry I

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<b>LY140 LCHS ENVIRONMENTAL SCIENCE</b>	<b>GRADE 11-12</b>
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<b>LY433 MCAS BIOLOGY PORTFOLIO</b>	<b>2.5 CREDITS</b>	<b>GRADES 11 –12</b>
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Appropriate for students in grades 11 & 12 who have yet to pass the Biology MCAS. Students will prepare a portfolio of their work for submission to DESE for the MCAS appeal process. Students who successfully pass the November retest may opt out of second semester and be rescheduled.

<b>LY125</b>	<b>ADVANCED PLACEMENT CHEMISTRY</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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This course is designed to provide an in-depth study of the mole concept, stoichiometry, thermo chemistry, acid-base theory, chemical equilibrium, and kinetics. Students will use scientific graphing calculators. The course material and laboratories are based on the prescribed Advanced Placement curriculum. Students are required to take the AP examination in May to possibly earn college credits. Students are required to do some review preparations during the summer previous to this course.

<b>LY149</b>	<b>AP ENVIRONMENTAL SCIENCE</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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This course is designed to introduce important environmental issues that are related to global populations. Emphasis is placed on the identification and classification of environment problems and how they relate to the laws of nature. The growth of human populations, problems related to this growth, and depletion of natural resources are explored. A review of hazardous pollutants introduced into the environment and their relationship to human health is examined. Technology related to the exploration of this environment and its uses in our society are also explored. This course is intended to prepare the student to be successful on the AP Environmental Science exam.

**Prerequisites:** biology, chemistry or marine biology with a B average or better

<b>LY405</b>	<b>HONORS BIOLOGY II <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
	<b>LEHS HONORS BIOLOGY II</b>		<b>GRADE 10</b>

A detailed survey of biological organization focusing on structural and functions diversity. Major concentration involves the comparison of cytological and physiological characteristics of representative life forms.

**Prerequisite:** Honors Biology I or Biology I / Chemistry I

<b>LY406</b>	<b>HONORS ANATOMY &amp; PHYSIOLOGY – <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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Cell and tissue levels of organization are presented as the foundation for understanding organs and organ systems. Laboratory activities include both actual and virtual dissections. This course is recommended for students planning to enter the nursing or medical profession and/or any student who has a desire to learn more about the human body.

**Prerequisite:** Honors Biology I or Biology I / Chemistry I

<b>LY410</b>	<b>ANATOMY &amp; PHYSIOLOGY <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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The human body is studied to understand how homeostasis is maintained at the cellular, tissue, organ, and organ systems levels. Hands-on, cooperative activities, labs, and dissections comprise a major part of the course. This course is recommended for students planning to study for allied health careers at the post-secondary level or for students interested in learning about the human body.

**Prerequisites:** B or better in Biology I or AP Biology and B or better in Chemistry

<b>LY407</b>	<b>MARINE BIOLOGY – <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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<b>LY408</b>	<b>MARINE BIOLOGY – <i>w/out lab</i></b>	<b>2.5 CREDITS</b>	<b>GRADE 12</b>
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<b>LY409</b>	<b>HONORS MARINE BIOLOGY <i>w/lab</i> (LCHS)</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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A more intense study of Marine Biology; the course covers many of the same topics as our standard Marine Biology Course, but in more depth. This course concentrates on the ecology of all marine life typical of New England waters, but will also encompass various organisms and environments from around the world. Classes will study a variety of local organisms including: plankton, sponges, jellyfish, worms, mollusks, crustaceans, fish, birds, reptiles and marine mammals. Both live and preserved specimens are studied as students learn about the structure and function of life in the oceans. Additional topics include the study of ocean water, currents, waves, tides, conservation and man's influence on the marine environment. All students will also be expected to conduct independent directed studies and research projects.

**Prerequisite:** Biology I/Chemistry I

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<b>LY414 APPLIED CHEMISTRY w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 10 – 12</b>
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This course is designed for the student who does not intend to study science after high school. The intent of this course is to provide students with fundamental chemistry concepts assisting them in developing into responsible citizens capable of making educated decisions. Such topics may include: Acid Rain, Greenhouse Effect, Fossil Fuels, Ozone Depletion, Food Chemistry, Nutrition, Pharmaceuticals, Forensics and Medical Issues. Greater emphasis will be placed on collaborative, hands-on laboratory activities. Exploring the role of chemistry in various fields will allow the student to better understand the principles of chemistry, their applications and the relevance of chemistry in our daily lives.

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<b>LY415 BIOTECHNOLOGY PRACTICES w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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This course provides an introduction to current biotechnology practices. The theory of biotechnology, along with hands-on laboratory experience, provides the student with a general background of the biotechnology industry. Biotechnology companies follow current good manufacturing practices (cGMP), which are regulated by the Food and Drug Administration (FDA). CGMP details quality management, buildings and design, equipment and personnel requirements, facility and equipment cleaning, production and process controls, packaging, labeling, complaint handling, and record keeping. Along with the theory and government regulations are general laboratory skills. These skills include preparation of solutions, pH measurements, microbiological techniques, spectroscopy, protein determination, and separation techniques (filtration, centrifugation, chromatography, and/or electrophoresis). In addition, students learn what job opportunities are available with a biotechnology education. Different careers offered in biotechnology companies are positions in manufacturing, Quality Control (QC), Quality Assurance (QA), Regulatory and /or Research and Development (R&D).

**Prerequisite:** Chemistry or enrolled in Chemistry

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<b>LY417 LEHS HONORS BIOTECHNOLOGY w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
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*This is a more intense study of Biotechnology practices.* The theory of biotechnology, along with hands-on laboratory experience, provides the student with a general background of the biotechnology industry. Biotechnology companies follow current good manufacturing practices (cGMP), which are regulated by the Food and Drug Administration (FDA). CGMP details quality management, buildings and design, equipment and personnel requirements, facility and equipment cleaning, production and process controls, packaging, labeling, complaint handling, and record keeping. Along with the theory and government regulations are general laboratory skills. These skills include preparation of solutions, pH measurements, microbiological techniques, spectroscopy, protein determination, and separation techniques (filtration, centrifugation, chromatography, and/or electrophoresis). In addition, students learn what job opportunities are available with a biotechnology education. Different careers offered in biotechnology companies are positions in manufacturing, Quality Control (QC), Quality Assurance (QA), Regulatory and /or Research and Development (R&D).

**Prerequisite:** Chemistry or enrolled in Chemistry

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<b>LY411 HONORS CHEMISTRY I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 10-12</b>
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A more intense study of chemistry; the course covers many of the same topics as College Chemistry I, but in more depth. Other topics include kinetics, equilibrium, rates of reactions, solubility product, ionization constant, balancing complex rates and reactions and thermodynamics. All the topics in this course are included in the Chemistry Achievement Test. Problem solving weekly labs and more intense homework assignments are included in this class.

**Prerequisite:** Algebra I / Biology I

<b>LY416 HONORS CHEMISTRY II w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 10 – 12</b>
<p>This is a 12<sup>th</sup> grade science elective. It is a second year course that continues to study principles of chemistry in depth. The course is shaped around two essential questions: What do we know? How do we know what we know? Major topics that will be covered in this course included: stoichiometry, physical characteristics of gases, molecular composition of gases, states of matter, solutions, acids and bases. Course work is regularly supplemented by laboratory experiments. Students will be given a problem to solve using the scientific method as a culminating project. This is a challenging course where students are expected to be able to apply quantitative thinking, problem solving, and experimental procedures. Students need to have strong, independent study skills for this class.</p> <p><b>Pre-requisites: B- in Honors Chemistry I or A- in Chemistry I, teacher's recommendation, and B- in Honors Algebra II or A- in Algebra II</b></p>		
<b>LY412 CHEMISTRY I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 10 – 12</b>
<p>This is the study of the fundamental concepts of matter, energy and chemical changes. The major areas studied are atomic theory, chemical bonding, chemical reactivity, writing and balancing equations, stoichiometry, acids and bases, gas laws, electrochemistry, redox reactions and nuclear chemistry. Most of these topics will be covered in laboratory investigations or experiments allowing the student to supply many ideas of chemistry.</p> <p><b>Prerequisite: Algebra I /Intro to Biology or Biology I.</b></p>		
<b>LY420 HONORS PHYSICS I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
<p>This course places emphasis on problem solving aspects of classical Newtonian mechanics which includes rectilinear and curvilinear motion. Heat, waves, sound, light and optical concepts are also studied in depth. Labs are conducted throughout the year to supplement the course work.</p> <p><b>Prerequisite: Algebra I</b></p>		
<b>LY421 HONORS PHYSICS II w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
<p>This course is designed to challenge the more advanced physics and math student. Problem-solving and formula derivations are stressed. Physics II probes deeper into the topics of Honors Physics I, as well as more advanced topics including electrical, magnetic, atomic, nuclear, and quantum physics. Labs supplement the course work.</p> <p><b>Prerequisite: B or better in subject area from previous year.</b></p>		
<b>LY422 PHYSICS I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 11 – 12</b>
<p>This course emphasizes the forces, motions, and the forms of energy which surrounds us. It stresses the need for a relationship between mathematics and science. Heat, sound, and light are studied in detail. Word problems are emphasized to increase the student's understanding of the principles of physics. Labs are conducted throughout the year to supplement the course work.</p> <p><b>Prerequisite: Algebra I</b></p>		
<b>LY178 AP PHYSICS I – ALGEBRA BASED</b>		<b>GRADE 11</b>
<p>AP Physics 1: Algebra-Based covers topics and concepts typically included in the first semester of an algebra-based introductory college-level physics course. Topics include kinematics (motion), dynamics (forces), circular motion &amp; gravitation, simple harmonic motion, momentum &amp; impulse, energy &amp; work, rotational motion &amp; torque, electric charge &amp; electric force, DC circuits (resistors only), and mechanical waves &amp; sound. The course focuses on high-level understanding of concepts, experimental design and critical thinking, and prepares students for the AP Physics 1 exam.</p> <p><b>Prerequisites: B- or better in honors Algebra 2 AND B- or better in honors Chemistry OR A- or better in Algebra 2 AND A- or better in Chemistry AND permission of instructor.</b></p>		

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<b>LY182</b>	<b>LEHS AP PHYSICS II – ALGEBRA BASED</b>	<b>GRADE 12</b>
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AP Physics II-Algebra Based is a second-year physics course for students who have successfully completed AP Physics 1. The course covers topics and concepts typically included in the second semester of an algebra-based introductory college-level physics course. Topics include fluid statics & fluid dynamics, thermal physics & thermodynamics, electrostatics & electric fields, DC circuits with resistors and capacitors, magnetism & electromagnetism, light & geometric optics, and modern (quantum, atomic & nuclear) physics. The course focuses on high-level understanding of concepts, experimental design and critical thinking, and prepares students for the AP Physics 2 exam.

**Prerequisite:** AP Physics 1

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<b>LY442</b>	<b>INTRODUCTION TO BIOLOGY <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADE 9</b>
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This course is the basic 9<sup>th</sup> grade science course and conforms to the Massachusetts Curriculum Frameworks in Science and Technology. Topics to be covered include related aspects of chemistry, physics, earth science and mathematics, as they apply to biological concepts. The history and philosophy of science, as well as research methods in the sciences, will, also be covered. Laboratories will include engineering and technical applications of biology and the use of technology.

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<b>LY461</b>	<b>EARTH SCIENCE <i>w/lab</i></b>	<b>6.0 CREDITS</b>	<b>GRADES 10-12</b>
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This course places its main emphasis on the chemical makeup of the earth, mineral identification, rock identification, layers of the atmosphere and plate tectonics. Other topics include oceanography, marine topography, topographic maps and the earth's relationship to the universe.

**Prerequisite:** Introduction to Biology

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<b>LY463</b>	<b>GEOLOGY</b>	<b>6.0 CREDITS</b>	<b>GRADES 11-12</b>
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This course is for student who has completed Earth Science and wishes to continue in this area of study. This course includes a study of global atmospheric processes, the dynamics of oceanic currents, the effects of glaciers, gravity and wind on our earth. Other topics include the rock cycle, radioactive dating and our solar system.

**Prerequisite:** Earth Science

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<b>LY464</b>	<b>ENGINEERING THE FUTURE</b>	<b>6.0 CREDITS</b>	<b>GRADES 9-12</b>
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Engineering the Future is a full-year, introductory engineering course, suitable for students in grade 9-12. The course provides a strong foundation in physics and offers students an opportunity to explore the social, historical, and environmental contexts of emerging technologies. A central goal of the course is to build technology literacy for every student.

Throughout the course, students develop a practical understanding of how we are influenced by technology, and how we all influence future technological development by the choices we make as workers, consumers, and citizens. The course is not intended exclusively for pre-engineering students or students who wish to enter technical trades.

<b>LY465</b>	<b>ECOLOGY</b>	<b>6.0 CREDITS</b>	<b>GRADE 12</b>
<b>LY465</b>	<b>ECOLOGY</b>	<b>LEHS</b>	<b>GRADES 10 - 12</b>
		<b>LCHS</b>	<b>GRADE 12</b>

This course will provide an in-depth study of the interaction among organisms and between those organisms and their environment. The students will develop an understanding of what an ecosystem is and the elements that determine the types and numbers of organisms that live in them. They will look at the atmosphere, the hydrosphere and the lithosphere, how each biotic factor helps to sustain the biosphere, and how the biotic factors of the biosphere interact with each of the other spheres. Ecology also refers to any form of biodiversity, from the biology of the smallest bacteria to the global flux of atmospheric gases that are regulated by photosynthesis and respiration as organisms breath in and out of the biosphere. Studying all of life's processes will help students explain and understand the adaption and evolution of all life. Strong analysis and synthesis skills will be developed and used extensively in all work done in this course.

**Prerequisite: Biology and teacher recommendation**

<b>LY466</b>	<b>HISTORY OF SCIENCE &amp; TECHNOLOGY</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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This course will examine the history of science spanning a period from ancient times to the present. Through the lens of history, this survey course will examine the growth of scientific ideas by examining the cultural and social context in which the ideas developed. The relationship between prevailing scientific explanations in various eras and new, emerging ideas will be traced. Understanding the transformation of society (work, health, leisure) in various eras due to innovations in science and technology will be a key concept in this course.

<b>LY467</b>	<b>CLEAN ENERGY FOUNDATIONS</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
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This course will teach students the importance of energy efficiency and renewable energy. Students will study energy-related topics including energy basics, energy efficiency and conservations, environment, geothermal energy, hydrogen and fuel cells, solar energy, and wind energy. The course will present innovative ways to decrease energy consumption in manufacturing, by-product use and product recycling policies that encourage green manufacturing.

**Prerequisites: Biology and Chemistry or equivalent**



## SOCIAL STUDIES

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<b>LY200 HONORS WORLD HISTORY II (c.1750-)</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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This challenging survey course covers the rise of nation states in Europe and the economic and political roots of the modern world. Students will study the origins and consequences of the Industrial Revolution, 19<sup>th</sup> century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will learn the causes and consequences of the great military and economic events of the past century, including WW I, the Great Depression, WW II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic and religious conflict in many parts of the world.

Honors students should possess strong writing skills and must be willing to conduct independent research, read supplementary materials, analyze documents, and complete assigned projects.

**Prerequisite: B+ or better average in subject area from previous year.**

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<b>LY201 WORLD HISTORY II (c.1750-)</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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This survey course covers the rise of the nation state in Europe and the economic and political roots of the modern world. Students will study the origins and consequences of the Industrial Revolution, 19<sup>th</sup> century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will learn the causes and consequences of the great military and economic events of the past century, including WW I, the Great Depression, WW II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic and religious conflict in many parts of the world.

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<b>LY210 HONORS U.S. HISTORY I</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
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This course provides able and ambitious students with opportunities to participate in advanced work involving research, analysis, appraisal and evaluation of our history from the Road to Independence up to the late nineteenth century. Each student is expected to develop sensitivity for critical intelligent thinking on issues of nationwide historical concern. The course includes selected reading, independent research and writing of reports. The student is made aware of the tremendous impact various groups and individuals have made on the development of our country as a unique nation. Effort is made to increase student awareness of the traditions, principles, and institutions of this nation.

Honors students should possess strong writing skills and must be willing to conduct independent research, read supplementary materials, analyze documents, and complete assigned projects.

**Prerequisite: B+ or better average in subject area from previous year.**

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<b>LY211 U.S. HISTORY I</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
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This course offers an in-depth view of the history of the United States from the Road to Independence up to the late nineteenth century. The course includes selected reading, independent research, and writing of reports. The student is made aware of the tremendous impact various groups and individuals have had on the development of our country as a unique nation. Effort is made to increase student awareness of the traditions, principles, and institutions of this nation.

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<b>LY107 AP UNITED STATES HISTORY</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
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Advanced Placement in U. S History is an intensive course for students who are capable of working beyond their grade level. Students are expected to do high quality independent work: essays, both in class and outside; significant outside reading; research papers, etc., as well as class preparation for College Board Advanced Placement exams in May.

**Prerequisite: B+ or better in Honors US I or Honors US II and teacher recommendation.**

<b>LY143</b>	<b>AP EUROPEAN HISTORY</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
<p>The course seeks to prepare the student for the spring AP exam by providing a comprehensive and detailed survey of modern European history from 1453 to the present. Themes will include the political, economic, cultural, and scientific developments that shaped Europe and how Europeans carried these to the rest of the world. Students will assess the impact of European History and analyze trends that shape the continent today. Students will be required to participate in the May AP exam.</p>			
<b>LY230</b>	<b>HONORS U.S. HISTORY II</b>	<b>5.0 CREDITS</b>	<b>GRADES 11</b>
<p>This course is a continuation of Honors U.S. History I, with the same degree of intensity demanded. Studies begin with the Twentieth Century and continue to the present day, emphasizing America's changing role in the world. Selected readings, special projects, and reports – both written and oral – are required of students taking this advanced course.</p> <p>Honors students should possess strong writing skills and must be willing to conduct independent research, read supplementary materials, analyze documents, and complete assigned projects.</p> <p><b>Prerequisite: B- or better in Honors US History I or B+ or better in US History I.</b></p>			
<b>LY231</b>	<b>U.S. HISTORY II</b>	<b>5.0 CREDITS</b>	<b>GRADES 11</b>
<p>This course takes the student from the late nineteenth century to the present time. The development of the United States from a continental to a world power is stressed. The student in this course, studies the expansion of popular democracy and the social agenda, the increasing role of labor and the farmer, the growth of business and industry, and the evolution of America into a superpower. Selected readings and reports will be required.</p> <p><b>Prerequisite: US History I.</b></p>			
<b>LY235</b>	<b>HISTORY 20<sup>TH</sup> CENTURY</b>	<b>2.5/5.0 CREDITS</b>	<b>GRADE 12</b>
<p>This course focuses on events that shaped the modern world and America's dominant role in it.</p>			
<b>LY244</b>	<b>HONORS HISTORY &amp; STRUCTURE OF AMERICAN GOVERNMENT</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
<p>This challenging course examines the fundamental principles and basic structures of all levels of American government. Students will analyze American political and economic systems and compare them with those of other nations. Major areas of study include federalism, separation of powers, checks and balances, and important Supreme Court decisions. Students will examine political behavior, analyze the electoral process at the national, state, and local levels, and evaluate the role of the media and public opinion. Honors students should possess strong writing skills and must be willing to conduct independent research, read supplementary materials, analyze documents, and complete assigned projects.</p> <p><b>Prerequisite: B- or better in Honors US History II or B+ or better in US History II.</b></p>			
<b>LY245</b>	<b>HISTORY &amp; STRUCTURE OF THE AMERICAN GOVERNMENT</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
<p>This course examines the fundamental principles and basic structures of all levels of American government. Students will analyze American political and economic systems and compare them with those of other nations. Major areas of study include federalism, separation of powers, checks and balances, and important Supreme Court decisions. Students will examine political behavior, analyze the electoral process at the national, state, and local levels, and evaluate the role of the media and public opinion.</p> <p><b>Prerequisite: U.S. History I &amp; II</b></p>			

<b>LY157 AP U.S. GOVERNMENT &amp; POLITICS</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course prepares students for the US Government and Politics Advanced Placement exam. The course is designed to provide an analytic perspective on United States politics and the U.S. Government. The course will focus on the institutions, groups, ideas and beliefs that comprise U.S. politics. The course requires familiarity with the basic institutions of the U.S. Government, and a background in the historical development of the United States.		
<b>Prerequisite: U.S. History I &amp; II</b>		
<b>LY250 STREET LAW</b>	<b>2.5/5.0 CREDITS</b>	<b>GRADES 11 - 12</b>
This college level elective course is a practical approach to understanding the law and how it applies to the average citizen. The criminal justice system, Tort Law, individual rights, family law, and consumer law are among the topics covered in a clear non-technical way. Guest speakers and field trips are used to complement the text. Combined with Criminal Law to make a full year course.		
<b>LY251 CRIMINAL LAW</b>	<b>2.5 CREDITS</b>	<b>GRADES 10 - 12</b>
A one-semester course concentrating solely on the criminal justice system.		
<b>Prerequisite: U.S. History</b>		
<b>LY260 PSYCHOLOGY</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
This college level elective course emphasizes the study of human behavior. Basic principles of behavior are examined. Emphasis is on understanding of self, interpersonal relationships, individual differences and principles of growth and development. The course incorporates field trips, guest lectures and films to correlate with the text. As a semester course, the student should emerge with an ever-increasing appreciation for the dignity, the importance, and the brotherhood of man.		
<b>LY261 SOCIOLOGY</b>	<b>2.5 CREDITS</b>	<b>GRADE 11-12</b>
This college level elective course is a factual study of the sociological structure. The functions, meaning, and processes of societies' subcultures, customs, and institutions are examined. The following areas are studied: man and his environment (culture, society, etc.), cultural heritage, social interaction, personality problems.		
<b>LY279 HONORS ECONOMICS / MICROECONOMICS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This class introduces students to basic economic principles through classroom discussion and debates, workbook exercises, classroom activities, and outside speakers. While it is outside the microeconomics curriculum, students participate in a "stock market game" where they are responsible for investing their own "money."		
<b>LY134 AP MICROECONOMICS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
Using a college-level textbook, this class introduces students to basic economic principles through classroom discussion and debates, workbook exercises, classroom activities, and outside speakers. While it is outside the microeconomics curriculum, students participate in a "stock market game" where they are responsible for investing their own "money". Extra tutorial sessions are arranged for anyone wishing to take the AP Microeconomics exam in May. All chapter tests and exams are in scantron/multiple choice format in order to help prepare the students for the AP exam. Open response essays require students to relate economic principles to basic principles and current events.		
<b>Prerequisite: B or better in social studies and math classes and/or discussion with teacher</b>		
<b>LY281 GEOGRAPHY OF THE EASTERN HEMISPHERE</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
This is a survey course of the physical, economic and social evolution of the Eastern Hemisphere and its people.		

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<b>LY282</b>	<b>GEOGRAPHY OF THE WESTERN HEMISPHERE</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
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This is a survey course of the physical, economic and social evolution of the Western Hemisphere and its people.

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<b>LY234</b>	<b>CONTEMPORARY AFFAIRS</b>	<b>2.5 CREDITS</b>	<b>GRADE 12</b>
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This elective course is designed to address major social, political, and world problems facing our society today. Typical areas for study include World Affairs, Human Rights, Technology, Population, and Moral Values.

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<b>LY236</b>	<b>LCHS HISTORY OF LYNN/NE</b>	<b>2.5/5.0 CREDITS</b>	<b>GRADES 11 - 12</b>
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This elective course deals with Lynn's history from the town's settlement in 1629. Development from a colonial town to a large city will be traced, placing emphasis on the industrial growth, which attracted people from a variety of nationalities to this area. Local history will be combined with aspects of New England and American history in order to establish Lynn's place in the development of the nation. Field trips to local points of interest such as the Lynn Museum and Historical Society, The Grand Army of the Republic Museum, and other Lynn locations to enhance the student's appreciation of their local heritage.

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<b>LY203</b>	<b>LEHS ANCIENT HISTORY</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
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Covering the period from prehistoric times through the middle ages, this elective goes beyond the traditional Ancient History course. By including the study of the medieval period, students will come to understand the connections between human beings despite time and distance. This course analyzes civilizations, their geographic and political environments, their technologies, economies, social institutions, and cultural achievements. Collateral reading supports text and classroom materials. Most importantly, this course is intended to provide the students with a historical foundation to aid further study.

## FOREIGN LANGUAGES

### Lynn Classical and Lynn English High

The Foreign Language Department offers from grades 7 through 12, five years of Spanish and French, in both regular and honors level classes, and 4 years of Latin. By using a coordinated program of books, tapes, visuals, and tests, modern language students learn the four skills of reading, writing, speaking, and listening, and also become acquainted with the culture and civilization of the countries that use the language. Oral skills are supplemented with tapes. Latin students learn to read the language so that they may appreciate ancient literature and language. By studying mythology, classical civilization, and the relationship of Latin to English and many other modern languages, Latin serves as a background subject for many different areas.

<b>LY500 CONVERSATIONAL SPANISH</b>	<b>5.0 CREDITS</b>	<b>GRADES</b>
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The purpose of this course is to provide the learner with the language needed to survive in situations in which Spanish must be used. The major focus of the course is to give the learner essential vocabulary needed to communicate in everyday life. The objective is to enable the learner to express him or herself in practical situations. In addition, the course will explore historical and contemporary facets of Hispanic culture.

<b>LY501 SPANISH</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-11</b>
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This is a beginning course in the Spanish language in which the elements of grammatical structure, pronunciation, and vocabulary, especially basic phrases of daily communication are stressed. Spanish is used in class as much as possible for directions and elementary conversations. Dictations and aural comprehension on familiar material are given frequently. An introduction to the history and civilization of the Spanish-speaking world is presented through short readings. Workbooks are used to complement class work and textual materials. Supersite online component available.

<b>LY502 SPANISH I REVIEW</b>	<b>5.0 CREDITS</b>	<b>GRADES</b>
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This is a thorough review of Spanish I with stressed emphasis on vocabulary, grammatical structure, and phrases for daily communication. The course is structured for the student whose intent is to further his/her studies in Spanish after receiving less than a C- in Spanish I. The intent is to prepare the student for acceptance into a Spanish II course. Supersite online component available.

<b>LY503 HONORS SPANISH II</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
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This accelerated course is a continuation of the two-year Middle School Spanish IA, IB program. The objectives and emphasis are the same as in Spanish II, but at a faster pace and with a brief review of previously learned material. Assignments are more challenging as students begin to express themselves in composition work and sharpen their conversational skills.

The textbook is supplemented with workbooks. Supersite online component available.

Honors Entry - Prerequisite: Must pass the appropriate entrance examination.

Honors Continuation - B or better average in subject area from previous year and prior departmental approval.

<b>LY504 SPANISH II</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
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This course begins with a thorough review of Spanish I and continues with the study of more advanced grammatical forms. Emphasis is placed on listening, speaking, and vocabulary expansion for personal communication and understanding of the Spanish-speaking world. The textbook is supplemented with tapes and workbooks. Supersite online component available.

**Prerequisite: Spanish I / Spanish IB and teacher approval**

<b>LY505 HONORS SPANISH III</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This course, a continuation of Honors Spanish II, maintains the same objectives and emphasis as Spanish III. It is given at a much faster pace with longer and more challenging assignments. Additional cultural and literary selections are assigned, and students are given more composition and oral work. Supersite online component available.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY506 SPANISH III</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This course, a continuation of Spanish II, includes a review of what has been previously learned as well as the introduction of more advanced grammatical structures. Using practical vocabulary, students continue to develop and refine the skills of listening, speaking, reading, and writing. Latin American and Spanish literature is introduced in brief selections. Workbooks supplement the textual materials. Supersite online component available.		
<b>Prerequisite: Spanish II and teacher approval</b>		
<b>LY507 HONORS SPANISH IV</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
In this course, a continuation of Honors Spanish III, advanced grammatical skills are presented within a culturally oriented framework. The use of additional readers provides the students with the opportunity to experience Hispanic literature as well as to develop their conversational ability. Compositions and preparation for the AP Exam enable students to review grammar and vocabulary. Supersite online component available,		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY508 SPANISH IV</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course combines language and literature for the students who have studied the basic concepts of Spanish. The goal of this course is to achieve a cultural insight with authentic literature. Concentration and emphasis is on vocabulary expansion, interesting reading, a comprehensive review of grammatical structures, and useful conversation. Supersite online component available.		
<b>Prerequisite: Spanish III and teacher approval</b>		
<b>LY509 SPANISH FOR HERITAGE SPEAKERS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course will provide a literacy-building approach utilizing the tools necessary to use Spanish more effectively in person and professional situations. The language explanations are clear and simple, and special attention is given to critical areas such as spelling, correct use of accents, vocabulary that builds on expressions used at home and in informal situations, and false cognates due to English interference. Readings, many which will deepen students' understanding of the Hispanic world, will be provided and discussed.		
<b>Prerequisite: Teacher Approval</b>		
<b>LY187 ADVANCED PLACEMENT SPANISH LANGUAGE</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course prepares students for the Spanish Language Advanced Placement Exam. The course contents are similar to those of Honors Spanish V with a more intensive approach to vocabulary acquisition and self-expression through written composition, oral presentations, and discussions. Students who take and pass the Spanish Language AP Exam will receive college credits.		
<b>Prerequisite: Honors Spanish IV and department approval</b>		
<b>LY510 HONORS SPANISH V</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
The continued development of the four linguistic skills of reading, writing, listening, and speaking is incorporated into this course through a survey of short stories by Hispanic authors. Vocabulary acquisition, oral expression, and composition work is based on conversational and literary themes. Grammar is reviewed as needed.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		

<b>LY511 SPANISH V</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course is designed for those students who want to continue with the study of Spanish increasing their conversational, rather than literary skills. Emphasis is placed on reading, writing, and vocabulary, which contribute to classroom discussions of the modern world. Practical vocabulary used in current careers is included.		
<b>Prerequisites: Spanish IV / Honors Spanish IV and teacher approval</b>		
<b>LY545 ETYMOLOGY</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
Purpose of this class is to increase vocabulary acquisition through improved recognition of embedded Greek and Latin bases in English and in other languages. The class will examine the development of English, word formation and the theory of Indo-European language. The class also will learn the most advantageous utilization of the dictionary for comprehension of word meaning and origin.		
<b>LY520 CONVERSATIONAL FRENCH</b>	<b>5.0 CREDITS</b>	<b>GRADES</b>
The purpose of this course is to provide the learner with the language to survive in situations in which French must be used. The major focus of the course is to give learner essential vocabulary needed to communicate in every day life. The objective is to enable the learner to express him or herself in practical situations. In addition the course will explore historical and contemporary facets of French culture throughout the French-speaking world.		
<b>LY521 FRENCH I</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
This is a beginning course in the French language in which the elements of grammatical structure, pronunciation, and vocabulary, especially basic phrases of daily communication are stressed. French is used in the class as much as possible for directions and elementary conversations. Dictations and aural comprehension on familiar material are given frequently. An introduction to the history and civilization of the French-speaking world is presented through short readings. Tapes and workbooks are used to complement class work and textual materials.		
<b>LY522 FRENCH I REVIEW</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-11</b>
This is a thorough review of French I with stressed emphasis on vocabulary, grammatical structure, and phrases for daily communication. The course is structured for the student whose intent is to further his/her studies in French after receiving less than a C- average in French I. The intent is to prepare the student for acceptance into a French II course.		
<b>LY523 HONORS FRENCH II</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
This accelerated course is a continuation of the 2-year Middle School French IA/IB program. The objectives and emphasis are the same as in French II, but at a faster pace and with a brief review of previously learned material. Assignments are more challenging as students begin to express themselves in composition work and sharpen their conversational skills. The textbook is supplemented with workbooks.		
<b>Honors Entry - Prerequisite: Must pass the appropriate entrance examination.</b>		
<b>Honors Continuation - <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY524 FRENCH II</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
This course begins with a thorough review of French I and continues with the study of more advanced grammatical forms. There is a continued emphasis on listening and speaking skills. Readings emphasize the cultural aspects of the French-speaking world. The textbook is supplemented with workbooks.		
<b>Prerequisite: French I / French IB and teacher approval</b>		

<b>LY525 HONORS FRENCH III</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This course, a continuation of Honors French II, maintains the same objectives and emphasis as French III. It is given at a much faster pace and with more complex materials and longer and more challenging assignments. Additional cultural and reading selections are assigned. <b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY526 FRENCH III</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This course, a continuation of French II, completes the study of the most important grammatical structures. Students continue to develop and refine the skills of listening, speaking, reading, and writing. In addition to the text, readers and tapes are used. Additional units develop cultural knowledge and fluency. Videos and software are also available. <b>Prerequisite: C- average in French II and teacher approval</b>		
<b>LY527 HONORS FRENCH IV</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course combines a general grammar review, literature, culture, and composition with an emphasis on oral and written fluency. Papers and oral presentations are assigned as students are introduced to French literature. <b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY528 FRENCH IV</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course combines a general grammar review, literature, culture, and composition with an emphasis on oral and written proficiency. Group and individual projects are assigned. <b>Prerequisite: French III and teacher approval</b>		
<b>LY148 ADVANCED PLACEMENT FRENCH LANGUAGE</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This course combines a general grammar review, literature, culture, and composition with an emphasis on oral and written proficiency. Group and individual projects are assigned. <b>Prerequisite: French III and teacher approval</b>		
<b>LY529 HONORS FRENCH V</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
The continued development of the four linguistic skills of reading, writing, listening, and speaking is incorporated into this course through a survey of French literature. There is a major concentration on vocabulary acquisition and oral expression. Composition work is focused on themes from the literary works. Advanced grammar is also presented. <b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY530 LCHS - FRENCH V</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
<b>LY541 LATIN I</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
In this course, students learn the principles of pronunciation and inflection, essential Latin constructions, and adequate vocabulary. Much time is also spent discussing English derivatives, Latin phrases used in daily life, the relationship of Latin to other Romance Languages, and Ancient Roman and Greek civilization.		
<b>LY542 LEHS LATIN II</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
In this course, students complete the basic vocabulary and grammar, including work on all the noun and adjective declensions, verb infinitives and participles, and special structures involving them. A continued emphasis is placed on derivatives and Latin quotes. Classical Mythology and Ancient Civilization is taught through Latin to English translations and additional English materials. <b>Prerequisite: Latin I and teacher approval</b>		



<b>LY546 HONORS LATIN II</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This accelerated course is a continuation of the Latin I program. The objectives and emphases are the same as in Latin II, but at a more intensive pace and with a brief review of previously learned material. Assignments are challenging as students translate adapted readings and readings from real ancient authors. Ancient culture, history, and mythology are also taught in the course.		
<b>Prerequisite: A in Latin I</b>		
<b>LY543 HONORS LATIN III</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
<b>LY543a LATIN III</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
In this course, students complete the study of Latin grammar, including the subjunctive and other advanced structures, which are needed to begin readings of passages from Roman authors such as Caesar, Ovid, Plautus, and Martial. There is continued emphasis on derivatives, Latin phrases, and ancient literature and civilization.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year.</b>		
<b>LY544 HONORS LATIN IV</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This is a reading course in Latin Literature with an emphasis on more advanced works of Roman authors such as Virgil, Cicero, and Pliny. There is a review of grammar and study of additional complex structures. Figures of speech, versification, and ancient civilization and its relationship to modern studies in the humanities are emphasized.		
<b>Prerequisite: <u>B</u> or better average in subject area from previous year and prior departmental approval.</b>		
<b>LY545a INTRODUCTION TO ANCIENT GREEK</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course will provide students with a basic understanding of the ancient Greek grammar, culture and contributions to western civilization.		
<b>LY160 AP LATIN: VERGIL</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>
This independent study course prepares students for the Latin Advanced Placement (AP) exam in May. The content is a more intensive approach to vocabulary acquisition, written composition, oral presentation and discussion. Students who pass the AP Latin Language exam may receive college/university credit. Because of the unique nature of this course, students must have the written permission of the department chair, guidance counselor and principal before undertaking AP Latin.		

**CISCO Networking Academy  
CLASSICAL AND ENGLISH HIGH SCHOOL**



*Lynn English High School Cisco Networking Academy offers three certification programs in Cisco Networking (CCNA), Hewlett Packard sponsored A+ Computer Maintenance and Troubleshooting and Hewlett Packard sponsored Linux+/Server+ N.O.S. Networking Operating Systems. All three certification programs include an on-line curriculum, hands-on labs, and supportive materials. All three programs are considered “Corporate Education” and are NOT scaled down to the high school level. College credit available. Internships are offered in web site design and maintenance, maintaining our Computer Help Desk for hardware, software and training issues. In addition, local area companies offer external internships to Academy students.*

**Certification: Cisco Certified Network Associate (CCNA)**

**A CCNA A CCNA certified individual can:** Install and configure Cisco switches and routers in multiprotocol internetworks using LAN and WAN interfaces, Provide Level 1 troubleshooting service, Improve network performance and security, Perform entry-level tasks in the planning, design, installation, operation/troubleshooting Ethernet Networks.

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<b>LY654 Introduction to Networking</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
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The ITN course is provided on line to registered students. Access to the curriculum is available from any connected device. There are no prerequisites for this course. It is highly recommended that students first complete the Cisco ITE course.

Introduction to Networks (ITN) is the first course in the Cisco CCNA Routing and Switching curriculum teaching students the architecture, structure, functions and components of the Internet and other computer networks. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

The primary objective of this course is to prepare students for entry-level positions in the Networking field within several different working environments.

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<b>LY657 Routing and Switching Essentials (R&amp;SE)</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
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The focus of this course is on learning the architecture, components, and operations of routers and switches in a small network. In this course, students will learn how to configure a router and a switch for basic functionality. Completion of the ITN course is a requirement to take this course.

Students who complete this course will be able to do the following:

- Describe enhanced switching technologies such as VLANs, VLAN Trunking Protocol (VTP), Rapid Spanning Tree Protocol (RSTP), Per VLAN Spanning Tree Protocol (PVSTP), and 802.1q
- Configure and troubleshoot basic operations of a small switched network
- Configure and verify static routing and default routing
- Configure and troubleshoot basic operations of routers in a small routed network
- Configure and troubleshoot VLANs and inter-VLAN routing
- Configure, monitor, and troubleshoot ACLs for IPv4 and IPv6
- Be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks

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**LY659 Information Technology Essentials (ITE)****5 CREDITS****GRADES 10-12**

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The ITE course is provided on line to registered students. Access to the curriculum is available from any connected device. There are no prerequisites for this course.

This course covers the fundamentals of computer hardware and software as well as advanced concepts. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Students will also be able to connect to the Internet and share resources in a network environment. New topics included in this version include the Microsoft Windows 7 operating system and mobile devices, while the networking and troubleshooting topics have been expanded.

## APPLIED TECHNOLOGY

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<b>LY601    COMPUTER APPLICATIONS I</b>	<b>2.5/5.0 CREDITS</b>	<b>GRADES 9-12</b>
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Computer Applications I will provide the student with a working knowledge of OFFICE 2003, which includes WORD, EXCEL, ACCESS and POWERPOINT. In addition, students will learn how to create integrated Office documents. Upon completion of this course, the student should be able to apply the concepts learned to any word processing, spreadsheet, database, or graphic presentation package.

**Prerequisite:** COMP/MS WORD or Computing for College

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<b>LY602    LEHS COMPUTER APPLICATIONS II</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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Computer Applications II is a continuation of Computer Applications I and will provide the student with an advanced knowledge of the programs presented in OFFICE 2003. It will progress from the level reached in Computer Applications I to an integration of skills and advanced handling of files.

**Prerequisite:** Computer Applications I

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<b>LY604    COMPUTING WITH MS WORD A</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
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This introductory computer applications course is designed for students who wish to learn keyboarding and basic MS Word. Students will apply these skills to academic projects such as term papers, essays, and reports. Taken in conjunction with 674, Consumer Law provides for a sixth major subject.

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<b>LY605    PRE-ENGINEERING DRAWING</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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The introductory level course for those students enrolled in the Pre-Engineering Program. The course provides students with the fundamentals of the graphic language used by engineers and draftsmen. Students are required to do independent and group projects stressing the integration of Math, Science and Technology.

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<b>LY606    LEHS PRE-ENGINEERING CAD (D) GRAPHICS</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
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The advanced level course for those students enrolled in the Pre-Engineering Program. The course provides students with the fundamental or Computer Aided Design using appropriate software. (Auto CAD Release 13/14, FASTCAD32, Home Designer, and HD3D, among others). Students are required to design projects individually and in groups integrating math, science, and technology.

**Prerequisite:** Pre-Engineering Drawing

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<b>LY607    COMPUTING FOR COLLEGE</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
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This course is designed for students who wish to learn basic keyboarding, word processing, and Internet research skills. Students learn to create and effectively format documents including letters, reports, term papers, and resumes. Students will learn techniques to conduct a successful Internet search, strategies to assess the credibility of Web sites, and the proper formatting of citing Web resources.

**Prerequisite:** None

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<b>LY608    COMPUTER LITERACY</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
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Computer Literacy is an introductory semester computer course, with an emphasis on word processing and basic computer skills. This course will include a literacy software program that will provide technology-based teaching tools along with standards-driven assessment and data management.

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<b>LY611    WEB DESIGN / DESKTOP PUBLISHING</b>	<b>2.5/5.0 CREDITS</b>	<b>GRADES 10-12</b>
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Web Design focuses on building and maintaining websites using HTML and Web Editing Software. Student projects are creating and enhancing a personal website. This course is also recommended for those interested in graphic arts.

Desktop Publishing gives students a chance to develop skills in producing and editing all types of publications. Students will design cards, newsletters, brochures, and advertising materials using professional software. There is a digital photography section in this course.

**Prerequisite:** Previous Computer Course or permission of the instructor

<b>LY612 HONORS PROGRAMMING with JAVA/C++</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
Almost all colleges require a Computer Programming course for students majoring in Mathematics, the Sciences, Business, Medicine, Architecture, and Engineering. This course is an introduction to Computer Programming that will prepare you for a college level programming course. You will enjoy building and running programs that return excellent results. <b>Prerequisite: Algebra 1 or permission of the instructor</b>		
<b>LY613 COMPUTER TECHNOLOGY</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
LVTI Computer Technology students are taught all aspects of the computer industry, including Microsoft Office Products, Computer Programming Languages, and Web Page design using HTML, Design Software, Internet Skills and MOS certification.		
<b>LY614 COMPUTER &amp; NETWORK MAINTENANCE</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
Computer and Network Maintenance students are taught in maintenance, repair, installation, manufacture, upgrade, configuration, networking, administration, support of personal computer and network hardware, firmware, software, database and telecommunications systems/users. Students are trained for industry MOS certification.		
<b>LY621 ACCOUNTING I / COMPUTER</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
Accounting I will introduce students to the fundamental principles of accounting procedures for professional and personal use. Students will learn to use accounting principles to manage a business and to analyze the effects of business transactions in the accounting process. Spreadsheet software will be used to complete chapter activities. <b>Prerequisite: None</b>		
<b>LY622 COMPUTER ACCOUNTING II</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
This course expands the accounting concepts and financial activities presented in Accounting I. Students will be introduced to advanced accounting procedures with emphasis on budgetary decisions and analysis of financial statements. Spreadsheet software will be utilized to maximize utilization of technology. <b>Prerequisite: Accounting I</b>		
<b>LY640a TELEVISION PRODUCTION I</b>	<b>2.5 - 5.0 CREDITS</b>	<b>GRADES 9-12</b>
Television Production teaches students the fundamentals of portable video camera equipment, production roles, and studio equipment. During the first quarter, you will learn how to set up a tripod and operate a portable video camera. You will also learn the basic principles of shot composition and camera movements while beginning to become familiar with the roles and responsibilities of a production crew. In the second quarter, the class transitions into the studio for a live production of a newscast. Students will have the opportunity to perform a wide range of production roles, which include camera operator, news anchor, director, and audio technician. These roles also require students to operate equipment in the control room, most notably the switcher and audio board.		
<b>LY641 TELEVISION PRODUCTION II</b>	<b>2.0 –5.0 CREDITS</b>	<b>GRADES 10-12</b>
Television Production II takes all the techniques of writing, directing, use of equipment, special effects and other production techniques that were learned in Television Production I, and puts them together into four productions (one production each quarter). Students are put into small groups of writers, directors, producers, and equipment operators. Students learn theory of television production. <b>Prerequisite: Television Production I and recommendation of the course teacher.</b>		

**ENGLISH LEARNER PROGRAM**  
Lynn English High School & Lynn Classical High School

<b>LY811a SLIFE ESL &amp; Literacy</b>	<b>5 CREDITS</b>	<b>GRADE 9 -12</b>
This course is designed for identified SLIFE students who are at the Entering English Language development level and who may be lacking academic skills across content areas due to limited or interrupted schooling. The focus of instruction is on early oral communication, survival English, and early literacy skills to bridge students' background experiences to academic educational experiences. (REVISED)		
<b>LY101T ENGLISH 9</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
This course provides the students with a foundation in the fundamentals of language, literature and composition. Course content includes literary genres and terms, including drama, poetry, fiction, and nonfiction. In addition, this course provides opportunities for students to practice the kinds of writing, the writing process, and to express themselves in a variety of modes.		
<b>LY812a ESL 1</b>	<b>5 CREDITS</b>	<b>GRADE 9 - 12</b>
This course is intended for students at the Entering English proficiency level who need intense English language instruction emphasizing social and academic language in the four domains of language (listening, speaking, reading, and writing). This course will focus on the development of communicative language skills through vocabulary development, oral communication, reading and writing. (REVISED DESCRIPTION)		
<b>LY816a English Language &amp; Literacy Development 1 (NEW)</b>	<b>5 CREDITS</b>	<b>GRADE 9 - 12</b>
This course is intended for students at the Entering English proficiency level who need intense English language instruction. All four domains of language (listening, speaking, reading, and writing) are addressed emphasizing academic language and academic habits of thinking across core-content areas.		
<b>LY111T ENGLISH 10</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
English 10 continues the study of language and usage, concentrates composition work on essay writing, and expands the in-depth study of literary genres. Reading, writing, speaking, and listening provide the platform for the development of more demanding and extensive writing assignments as well as for close reading and discussion of more difficult literary works.		
<b>LY813a ESL 2</b>	<b>5 CREDITS</b>	<b>GRADE 9 – 12</b>
This course is intended for students at the Emerging English proficiency level who need intense English language instruction emphasizing social and academic language in the four domains of language (listening, speaking, reading, and writing). This course will focus on the development of communicative language skills through vocabulary development, oral communication, reading and writing. (REVISED DESCRIPTION)		
<b>LY817a English Language &amp; Literacy Development 2</b>	<b>5 CREDITS</b>	<b>GRADE 9 - 12</b>
This course is intended for students at the Emerging English proficiency level who need intense English language instruction. All four domains of language (listening, speaking, reading, and writing) are addressed emphasizing academic language and academic habits of thinking across core-content areas.		
<b>LY121T ENGLISH 11</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
The purpose of this course is to achieve mastery of mechanics and usage through the practice of written and oral activities, to continue vocabulary development, to expand critical thinking skills, and to survey American literature. Learning research skills will be an important part of the writing program, and student-centered-learning activities will encourage continuing development of each individual's academic maturity.		

<b>LY814</b>	<b>ESL 3</b>	<b>5 CREDITS</b>	<b>GRADE 9 – 12</b>
This course is designed for Developing EL students who need additional ESL instruction. The 4 domains of language are addressed with emphasis on reading and writing domains of language. <b>(REVISED DESCRIPTION)</b>			
<b>LY815</b>	<b>ESL 4 (NEW)</b>	<b>5 CREDITS</b>	<b>GRADE 9 – 12</b>
This course is designed for Developing EL students who need additional ESL instruction. The four domains of language are addressed with emphasis on reading and writing domains of language.			
<b>LY820</b>	<b>SLIFE FOUNDATIONS OF ALGEBRA</b>	<b>2.5 CREDITS</b>	<b>GRADE 9-12</b>
This course is designed for SLIFE EL students who have limited previous exposure to math due to limited or interrupted schooling. The purpose of this course is to develop ESL literacy and offer remediation in basic math skills and concepts in preparation for Algebra. <b>(REVISED)</b>			
<b>LY821</b>	<b>SLIFE FOUNDATIONS OF GEOMETRY</b>	<b>2.5 CREDITS</b>	<b>GRADE 9-12</b>
This course is designed for SLIFE EL students who have limited previous exposure to math due to limited or interrupted schooling. The purpose of this course is to develop ESL literacy and offer remediation in basic math skills and concepts in preparation for Geometry. <b>(REVISED)</b>			
<b>LY301T</b>	<b>ALGEBRA I</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
This is the introductory high school math class for those students who did not take algebra in middle school. Topics include rational and irrational numbers; operations; linear quadratic exponential, trigonometric, and rational functions; solving equations and inequalities; matrices; graphing, right angle geometry; statistics, probability, and data analysis. Problem solving and writing in mathematics are emphasized. A variety of assessment strategies are employed in preparation for MCAS.			
<b>LY322T</b>	<b>GEOMETRY</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
This course provides students with an understanding of geometry and spatial sense, geometry from an algebraic perspective, and measurement. Students will analyze characteristics of two and three dimensional objects; use different representational systems, including coordinate geometry and graph theory; use transformations and symmetry in analyzing mathematical situations; use visualization and spatial reasoning to solve problems both within and outside of mathematics. Students will study attributes, units and systems of measurement and apply a variety of techniques, tools, and formulas for determining measurement. Essential tools used include a ruler, protractor, compass and scientific or graphing calculator. <b>Prerequisite: Algebra I</b>			
<b>LY312T</b>	<b>ALGEBRA II</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
This course focuses on increasing the students' understanding of algebraic concepts with a particular emphasis on functions, graphing and data analysis. Integrated topics include number sense, patterns, relations, functions, geometry, measurement, data analysis, statistics, and probability. A graphing calculator will be used. <b>Prerequisite: Geometry / Algebra I</b>			
<b>LY830</b>	<b>SLIFE LIFE SCIENCE</b>	<b>2.5 CREDITS</b>	<b>GRADE 9</b>
This introductory course for SLIFE EL students offers an overview of biology topics while developing their academic vocabulary in English. Students will learn the basic concepts relating to Life Science.			
<b>LY402T</b>	<b>BIOLOGY I w/lab</b>	<b>6.0 CREDITS</b>	<b>GRADES 9 -10</b>

This course is designed to introduce students to basic biological principles. The major focus of instruction is upon the "living condition." A wide variety of topics are covered giving students a solid foundation of knowledge upon which they may base future study. This course also includes laboratory work that introduces students to many of the technological skills involved in the study of life sciences. Instruction conforms to the Life Science standards in the Massachusetts State Frameworks.

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<b>LY403T LCHS BIOLOGY II</b>	<b>5.0 CREDITS</b>	<b>GRADE 10-12</b>
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A detailed survey of biological organization focusing on structural and functions diversity. Major concentration involves the comparison of cytological and physiological characteristics of representative life forms.

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<b>LY465T ECOLOGY</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
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This course will provide an in-depth study of the interaction among organisms and between those organisms and their environment. The students will develop an understanding of what an ecosystem is and the elements that determine the types and numbers of organisms that live in them. They will look at the atmosphere, the hydrosphere and the lithosphere, how each biotic factor helps to sustain the biosphere, and how the biotic factors of the biosphere interact with each of the other spheres. Ecology also refers to any form of biodiversity, from the biology of the smallest bacteria to the global flux of atmospheric gases that are regulated by photosynthesis and respiration as organisms breath in and out of the biosphere. Studying all of life's processes will help students explain and understand the adaption and evolution of all life. Strong analysis and synthesis skills will be developed and used extensively in all work done in this course.

**Prerequisite: Biology and teacher recommendation**

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<b>LY201T WORLD HISTORY II (c.1750-)</b>	<b>5.0 CREDITS</b>	<b>GRADE 9</b>
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This survey course covers the rise of the nation state in Europe and the economic and political roots of the modern world. Students will study the origins and consequences of the Industrial Revolution, 19<sup>th</sup> century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will learn the causes and consequences of the great military and economic events of the past century, including WW I, the Great Depression, WW II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic and religious conflict in many parts of the world.

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<b>LY211T U.S. HISTORY I</b>	<b>5.0 CREDITS</b>	<b>GRADE 10</b>
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This course offers an in-depth view of the history of the United States from the Road to Independence up to the late nineteenth century. The course includes selected reading, independent research, and writing of reports. The student is made aware of the tremendous impact various groups and individuals have had on the development of our country as a unique nation. Effort is made to increase student awareness of the traditions, principles, and institutions of this nation.

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<b>LY231T U.S. HISTORY II</b>	<b>5.0 CREDITS</b>	<b>GRADE 11</b>
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This course takes the student from the late nineteenth century to the present time. The development of the United States from a continental to a world power is stressed. The student in this course, studies the expansion of popular democracy and the social agenda, the increasing role of labor and the farmer, the growth of business and industry, and the evolution of America into a superpower. Selected readings and reports will be required.

**Prerequisite: US History I.**

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<b>LY846T U.S. HISTORY &amp; STRUCTURE OF THE AMERICAN GOVERNMENT</b>	<b>5.0 CREDITS</b>	<b>GRADE 11-12</b>
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This course examines the fundamental principles and basic structure of all levels of American government. Students will analyze American political systems at the local, state, and federal levels. Major areas of student will include federalism, separation of powers, checks and balances, and important Supreme Court decisions.



## ELECTIVES

<b>LY711 ART I – BEGINNING</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
This class is a foundation course of study introducing students to color, design and composition. Students will be working primarily with two-dimensional media. This is the first year art class and is open to all grade levels.		
<b>LY712 ART II - INTERMEDIATE</b>	<b>2.5 CREDITS</b>	<b>GRADES 10-12</b>
Building on the knowledge and experience base of Art I, this course stresses the development of originality in visual expression through extensive work in painting and drawing as well as cultural history. <b>Prerequisite: Must have passed Art I or other high school art classes.</b>		
<b>LY713 ART III – ADVANCED</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
Open for students who have completed Art I & II, this course will concentrate on developing the student's individual art interests through independent/self-directed projects under the teacher's guidance.		
<b>LY715 ART IV</b>	<b>2.5 CREDITS</b>	<b>GRADES 11-12</b>
An advanced class for those who have taken Art I, II, & III. Student will be encouraged to work on independent projects, using a wide range of art materials.		
<b>LY716 PORTFOLIO ART</b>		<b>GRADES 11 - 12</b>
<b>LY741 MUSIC THEORY I</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
Students with no previous musical experience will learn the basics of reading and writing music. Students will learn how to write basic melodies and chord progressions. The goal of this course is to allow the student to develop their musical potential and creativity. <b>This is a one semester course.</b>		
<b>LY741a MUSIC THEORY II</b>	<b>2.5 CREDITS</b>	<b>GRADES 10-12</b>
Students will compose more complex melodies and chord progressions using good voice-leading techniques. This is a one semester course. <b>Prerequisite: Music Theory I</b>		
<b>LY730 BAND</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
Students play a variety of concert music, i.e., popular, show tunes, etc. Members perform with the all-city concert band and are eligible for day field trips and summer scholarship program. Students perform in the jazz/rock/rhythm and blues band. Band class is open to all students with prior musical experience. <b>This is not a beginner class!</b> The class will work on music fundamentals by exploring and performing a variety of styles of music. Students in this course must have basic prior knowledge of music, i.e. scales C, G, D F, Bb, and also have the ability to read level 2 music. Students are required to attend all performances (day and evening) for a passing grade. <b>This is a full year course.</b>		
<b>LY733 PIANO I</b>	<b>2.5 CREDITS</b>	<b>GRADES 10-12</b>
Students with no previous musical experience learn the basics of piano study. Each student can work on his/her own keyboard and not only learn to play and read music, but learn to compose and analyze it as well. <b>This is a full year course.</b>		

<b>LY734 PIANO II</b>	<b>2.5 CREDITS</b>	<b>GRADES 10 -12</b>
Student learns at a more advanced level of piano study. This is a full year course. <b>Prerequisite: Piano I or prior musical education in piano.</b>		
<b>LY735 LEHS PIANO III</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
Student learns at a more advanced level of piano study. This is a full year course. <b>Prerequisite is Piano II or prior musical education in piano.</b>		
<b>LY736 CONCERT CHOIR</b>	<b>2.5 – 5.0 CREDITS</b>	<b>GRADES 9-12</b>
Concert choir is a smaller, select, performance-oriented group of balanced voices providing a vehicle for more advanced choral literature and technique. This class is offered to those students who wish to refine their choral singing skills and who wish to make a high level of commitment to the performance of choral music. Admission is by audition only. Students must be prepared to make the commitment to participate in all of the many performing opportunities in school and community throughout the year. Attendance at all rehearsals and concerts (day & evening) is required to remain in the class. <b>This is a full year course.</b>		
<b>LY737 CHORUS</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
Chorus is open to the entire student body.		
<b>LY738 GOSPEL CHOIR</b>	<b>2.5 - 5.0 CREDITS</b>	<b>GRADES 9-12</b>
The educational protocol for students in national public school music programs has been to research and sing from different periods in history. The standard repertoire for vocal students includes songs from categories of jazz, popular, classical and what used to be called “Negro Spirituals.” Such spirituals originated during slavery and evolved into Gospel. The Gospel Choir at Lynn English works on a repertoire of both the traditional Spiritual and today’s Contemporary Gospel. Students are also given the opportunities to shine as soloists and in groups of two, three and four. Such curriculum content gives students an appreciation for the struggles of the past and a humble attitude for the times in which we are now living. Students are required to attend all rehearsals & performances for a passing grade. <b>This is a full year course.</b>		
<b>LY739 WOMEN’S CHORUS – LEHS</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
The Women’s Chorus at LEHS performs music arranged in two and three part harmony. This chorus is designed to develop a more mature sound so the students may advance to an upper-level ensemble. There is a strong emphasis placed on proper vocal techniques, as well as music-reading skills. An audition is not required; student should be able to match pitch with their voices.		
<b>LY742 THEATRE ARTS I</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
This course is designed for the student who is performance-oriented. Students read at least three full-length plays and discuss their structure. Students will also prepare monologues and scenes for presentation in class. Theatre games, improvisation, mime and character development will be included.		
<b>LY743 THEATRE ARTS II</b>	<b>2.5 CREDITS</b>	<b>GRADES 10 -12</b>
This course is a continuation of Theatre Arts I. Students will continue work on greater development of characters in the presentation of scenes in class. They will also begin to stage each other in scenes for class presentation.		

<b>LY744 THEATRE ARTS III</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
Students will study one-act plays and prepare for presentation. This course is a culmination of Theatre Arts I and II. Students will work together in various capacities for public presentation.		
<b>LY745 THEATRE ARTS IV</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
This course studies acting in terms of more stylized scripts. Looking at the classic periods of theatre, the Greeks, Romans, Shakespearean, and Theatre of the Absurd students will study scenes that present more challenging approaches to the actor.		
<b>LY740 STAGECRAFT</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
This course explores all aspects of the backstage world of theatre. Students will be exposed to the design, construction, and implementation of the scenery, costumes, lighting, props and makeup. Students will participate in the active preparation of the creation of design elements for a show. Students will complete a major project each quarter. For example, one project will include the design and construction of a character mask. This course is a hands-on class of active participation.		
<b>LY771 COMMUNITY SERVICE</b>	<b>1.0 CREDITS</b>	<b>GRADES 9-12</b>
Community service is available to all students who have a first period or last period study. This enables the respective student to go to the Hood or Ford Schools and assist in a variety of tasks. These tasks might include mentoring or tutoring students or assisting staff and teacher aides.		
<b>LY759 HEALTH</b>	<b>1.0 CREDITS</b>	<b>GRADE 9, 10, 12</b>
This course is a basic introduction to health. It includes growth and development, mental/emotional health, personal health, family life and health nutrition, disease prevention and control, consumer health, drug use and abuse, and community health and management.		
<b>LY760 HEALTH I</b>	<b>1.0 CREDITS</b>	<b>GRADE 11-12</b>
This course is a basic human physical, mental, and emotional development. It provides practical information relating to the prevention of disease. The main thrust of the course is to enrich the students' knowledge in order to achieve the highest degree of physical and mental fitness at all times.		
<b>LY761a LEHS HEALTH – PHYS ED</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
<b>LY762 PHYSICAL EDUCATION/HEALTH</b>	<b>2.5 CREDITS</b>	<b>GRADE 9</b>
<b>LY762a PHYSICAL EDUCATION/HEALTH</b>	<b>2.5 CREDITS</b>	<b>GRADE 10</b>
A comprehensive and sequential program with a goal of providing a safe environment where students learn basic concepts about movement and sports, and are exposed to numerous opportunities to develop psychomotor skills. Each student will be encouraged to develop an appreciation of exercise, to learn how to achieve health-related fitness, and to develop sufficient skills to enjoy participating in lifetime sports and activities.		
<b>LY603 CONSUMER LAW</b>	<b>2.5 CREDITS</b>	<b>GRADES 9-12</b>
This one-semester course is designed for students interested in learning the legal principles of business and personal law. Students will learn and gain an understanding of ethics, employment, credit, banking, bankruptcy, contracts, partnerships and other legal related areas of importance to one's personal and business life.		

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<b>LY765</b>	<b>FINANCIAL LITERACY</b>	<b>5.0 CREDITS</b>	<b>GRADE 11-12</b>
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This course utilizes materials from the National Endowment for Financial Education. Students learn the fundamentals of basic money management and financial planning. A four phase learning process moves a student from inquiring, gathering and processing to applying learned skills and knowledge. Competency-based learning provides student with the tools needed to perform each of the seven core competencies: Making a Financial Plan with goal Setting, Budgeting, Investing, Credit and Debt, Banking and Checking Account, Insurance and Career Planning. Students collaborate with peers on a variety of exercises and assignments.

**NOTE: This course is listed as an elective. Schools may decide what department will be responsible for teaching this course. When this position is posted, the license requirement must be listed.**

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**MCJROTC**  
**MARINE CORPS JUNIOR RESERVE OFFICER TRAINING CORPS.**  
**Lynn English High School Only**

**There are seven major goals of MCJROTC:**

1. The program aims at developing informed and responsible citizens.
2. The program aims at developing leadership.
3. The program helps build character. Cadets learn about ethics, leadership, fellowship, desirable traits and self-discipline.
4. The program is designed to teach about the elements and requirements for national security. Cadets will be better equipped to make informed and intelligent decisions.
5. Discipline is stressed. A good leader is one who has self-control and will remain calm and competent in difficult situations. Self-discipline is the starting point.
6. The program teaches that respect for authority is of utmost importance in any organization and in life in general. Cadets learn to respect peers, superiors and subordinates.
7. MCJROTC enlightens cadets about possible career and educational choices.

**Requirements:**

1. **Each student must wear a MCJROTC uniform once a week and must look presentable.**
2. **Each student must participate in physical fitness once a week and take a physical fitness test during the grading period (which consists of sit-ups, pull-ups, for male cadets, bent arm hang for female cadets and one (1) mile run.**

<b>LY805 ROTC I</b>	<b>5.0 CREDITS</b>	<b>GRADES 9-12</b>
The program of instruction is designed expressly for young men and women to develop informed and responsible citizens, to strengthen the character of the youth, to promote an understanding of the national security, to help form habits of self-discipline, and to develop respect for a democratic society. The text of the program provides for classroom and practical application in the following five (5) areas of instruction. a) Leadership Tenets; b) Citizenship; c) Personal Growth and Responsibility; d) Career Exploration and Public Service; (e) General Military Subjects		
<b>LY806 ROTC II</b>	<b>5.0 CREDITS</b>	<b>GRADES 10-12</b>
This program of instruction takes what a cadet has learned (mastered) in ROTC I and increases the practical application portion of the above four (4) areas of instruction.		
<b>LY807 ROTC III</b>	<b>5.0 CREDITS</b>	<b>GRADES 11-12</b>
<b>LY808 ROTC IV</b>	<b>5.0 CREDITS</b>	<b>GRADE 12</b>

This program of instruction takes what a cadet has learned (mastered in ROTC I and ROTC II and intensifies the practical application portion and requires the individual cadet to become an instructor of the above four (4) areas of instruction. In ROTC IV each individual cadet is required to perform periods of instruction and help his junior cadets with problem solving, time management, and goal setting.

**Prerequisites:**

- a. **MCJROTC Leadership Education (LE) II:** An elective course open to any 10<sup>th</sup>, 11<sup>th</sup>, or 12<sup>th</sup> grader who as passed LEI with a 70% or higher.
- b. **MCJROTC Leadership Education (LE) III:** An elective course open to any 11<sup>th</sup> or 12<sup>th</sup> grader who passed LE II with a 75% or higher.
- c. **MCJROTC Leadership Education (LE) IV:** An elective course open to any 12<sup>th</sup> grader who has passed LE III with an 80% or higher.

**2017/2018 daj**