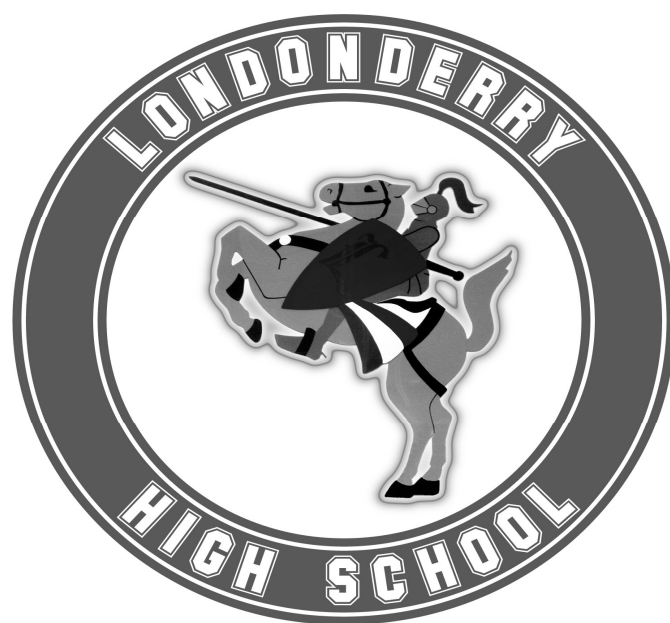


LONDONDERRY HIGH SCHOOL



PROGRAM OF STUDIES
2010 — 2011

**LONDONDERRY HIGH SCHOOL
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Guidance Counselors	William Mitchell (Ff-H) Linda Ryan (I-Mar)
ASSISTANT PRINCIPAL – HOUSE 3	GREGORY WARREN
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ASSISTANT PRINCIPAL – HOUSE 4	KATIE SULLIVAN
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GUIDANCE DIRECTOR	MICHAEL DOLPHIN
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MUSIC DIRECTOR	ANDREW SOUCY
ATHLETIC DIRECTOR	HOWARD SOBOLOV
SCHOOL-TO-CAREER COORDINATOR	GAYLE ESTERLY

Program of Studies
Revised December 2009
Kim Lindley-Soucy and Diane Malley

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LHS MISSION STATEMENT

Londonderry High School, in partnership with parents and the community, provides a safe and nurturing environment with varied opportunities promoting good character, academic excellence, and responsible citizenship necessary for future success in the local and global community.

STUDENT EXPECTATIONS

<p>ACADEMIC EXPECTATIONS: Students of Londonderry High School</p> <ul style="list-style-type: none">➤ Demonstrate literacy through reading, writing, thinking and speaking effectively.➤ Apply critical thinking, research and problem solving skills to a changing world.➤ Function as self-directed learners in a variety of learning and working environments.	<p>CIVIC EXPECTATIONS: Members of the Londonderry High School community...</p> <ul style="list-style-type: none">➤ Demonstrate an awareness of their individual rights and responsibilities as contributing members of the larger community.➤ Exhibit school pride through support of school activities and involvement in community life.➤ Model ethical and lawful behavior as responsible and accountable citizens.	<p>SOCIAL EXPECTATIONS: Members of the Londonderry High School community...</p> <ul style="list-style-type: none">➤ Develop positive relationships, demonstrate tolerance, and respect diversity.➤ Interact cooperatively while working toward common objectives.➤ Promote personal wellness and the ability to make healthy choices.
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A MESSAGE FOR STUDENTS

This Program of Studies has been thoughtfully designed to offer you a rich variety of courses that will challenge and engage you as learners. To earn a Londonderry High School diploma, you must accrue 24 credits and meet all academic requirements for graduation. Throughout the span of your high school career we also encourage you to take advantage of the opportunity to explore your personal interests and career goals. Discuss an academic plan with your parents and use the LHS administrative, teaching, and guidance staff as a resource to implement that plan. Please carefully consider the courses that will meet your needs and assist you in taking the right steps toward a rewarding academic experience that will successfully prepare you for life beyond high school.

We have organized a sequence of courses through our Career Pathway Programs for students to pursue a career of interest, if inclined. These pathways will enable you to expand your knowledge and skills in ten professional fields. The School to Career Center works with Londonderry High School students of varying ability levels to review and participate in career pathways. We offer a cluster of courses in the careers of finance, athletic training, biotechnology, computer maintenance, teaching, information technology, mass communications, engineering, television production, and career and technical education. Successful completion of a career pathway leads to a certificate in that area and possible college credit in one or more courses.

Scheduling 1765 students in a high school is an arduous task. We build our master schedule and number of sections offered based upon the course selections you make in the spring. There is very little flexibility when it comes to making changes in courses, periods, and teachers once the school year begins. Schedule changes will only be made for scheduling errors (i.e., did not get a required course), misplacement in a level, or priority given to upperclassmen for credits needed toward graduation requirements. The elective courses you choose may not be available for you and other choices may be necessary. Acceptance in appropriate levels will be determined by teacher recommendation and past performance. If schedule changes are necessary, they should be addressed before the start of the fall semester. Please take the time now to discuss your plans for next year with your parents, teachers and counselor because the decisions you make will be reflected in your schedule for next year. The entire staff of Londonderry High School is committed to providing you with an outstanding education. Good luck with your course selections.

Jason Parent
Principal

GENERAL REQUIREMENTS AND COURSE SELECTION PROCESS

GRADUATION REQUIREMENTS

In order to earn a Londonderry High School diploma, a student must accrue 24 credits along with all of the individual requirements. The school year is divided into two semesters: August to January and January to June. One credit (1.0) is earned by successfully completing a full-year course that meets for one 45-minute period each school day. One-half credit (0.5) is earned by successfully completing a half-year course that meets for one 45-minute period each school day. One-quarter (0.25) credit is earned by successfully completing a half-year course that meets two to four times a week for one 45-minute period. Students are required to pass all identified course competencies as well as earn a passing grade in a course to receive course credit. Students will be notified of course competencies by each teacher at the beginning of the semester and opportunities for remediation are available when needed. Independent Study and Office Aide credits will be evaluated on a case-by-case basis with approval of the student's Assistant Principal. All students are **academically and financially** responsible for all the courses for which they register.

4 credits **ENGLISH**

3 credits **MATHEMATICS** (to include an algebra credit)

3 credits **SOCIAL STUDIES** (World, U.S. History, Civics, Economics)

2 credits **SCIENCE** (Physical Science, Biology)

1 credit **PHYSICAL EDUCATION**

½ credit **HEALTH**

½ credit **COMPUTER EDUCATION**

*The Computer Education requirement can be met through successful completion of the Londonderry Middle School Computer curriculum. Successful completion of the requirement at LMS does not gain high school credit.

½ credit **RESTRICTIVE ELECTIVE (ARTS)**

At least ½ credit from any of the following areas:

Art (all Art courses)

Music (all Music courses)

Graphic Arts (Desktop Publishing, Exploring Graphic Arts, Computer Graphic Design)

Basic Video

9½ credits **GENERAL ELECTIVES**

At least 9½ credits of electives are required in addition to the arts elective and the required core courses.

The following is a generalized four year plan which achieves the minimum requirements and the year in which the majority of students enroll in these courses.

9 th Grade		10 th Grade		11 th Grade		12 th Grade	
English	1.0	English	1.0	English	1.0	English	1.0
Mathematics	1.0	Mathematics	1.0	Mathematics	1.0		
World History	1.0	US History	1.0	Civics	0.5	Restrictive Elective & General Electives	5.0
Freshman Science	1.0	Biology	1.0	Economics	0.5		
PE I	0.5	PE II	0.5				
Health	0.5						
Restrictive Elective & General Electives	1.0	Restrictive Elective & General Electives	1.5	Restrictive Elective & General Electives	3.0		
Minimum Credits	6.0	Minimum Credits	6.0	Minimum Credits	6.0	Minimum Credits	6.0
Minimum number of credits earned by the end of the 9 th grade	6	Minimum number of credits earned by the end of the 10 th grade	12	Minimum number of credits earned by the end of the 11 th grade	18	Minimum number of credits earned by the end of the 12 th grade	24

EARLY GRADUATION

Students desiring to complete their high school careers and graduation requirements at the end of 3 or 3 ½ years must make this request prior to scheduling classes for the last anticipated year of attendance. Requests for early graduation must be made in writing and signed by the parent/guardian and student. The burden of proof will rest with the student to justify why early graduation is necessary and in the student's best interest. Forms are available in the Guidance Department. Students leaving at the end of the 3 ½ years will not receive their diplomas until the scheduled graduation ceremony in June. Once approved, students graduating in three years will be allowed full senior status to include all activities and privileges normally accorded to seniors.

COURSE SELECTION/COURSE RECOMMENDATION

As students meet with their counselor, course selections will be based on teacher recommendation, career choices, parent/guardian and student input, and Special Education Team input when applicable. Parents and students must realistically assess capabilities and ambitions. If there are any questions concerning a course or any doubts concerning success in a particular course, parents/guardians and students should discuss these concerns with the appropriate teacher, counselor, and/or Curriculum Coordinator. Emphasis must be placed on careful planning during the course selection period to assure that the attainment of the student's goals is possible. Should a student wish to enroll in a course not recommended, the student may petition the Guidance Director. Please note that enrollment in some courses may be limited and courses may be eliminated in the event of low enrollment.

Scheduling of classes for each school year begins early in the second semester of the preceding year. Each student, therefore, has at least six months prior to the opening of the school year in which to consider the courses he/she will be taking. In view of the lengthy period of time, there will be **NO** changes to student schedules after the opening of school except under the following conditions:

- The student has been misplaced in a course.
- The student has failed a prerequisite for a course now scheduled.
- The student has a study period and wishes to add a class (depending on availability of classes).
- A computer error in scheduling.

HONORS COURSES

Courses that are labeled honors are designed to offer scholastic challenges to students whose academic records and personal motivation indicate a preparedness to take on the most rigorous course work. They require students to be independent and self-directed learners. Students who choose these courses need to have prior teacher approval (signature on the course selection form) and should check with the Curriculum Office for required summer projects. This process is subject to Curriculum Coordinator review as well. Honors classes are weighted in the grade point average computation. GPA and weighting take effect at the completion of a specific course and are based on final averages in the course.

LHS honors courses reflect the following attributes:

- Emphasis is placed on curriculum depth.
- The curriculum is fast-paced and rigorous.
- Independent research or independent project work is required.
- Course emphasis is on synthesis and working with abstract ideas.

Students in honors courses are expected to meet the following criteria:

- When moving from a college preparatory level course to an honors level course, a minimum grade of B+ is required in the previously completed course.
- Students who commit to honors level courses should realize their commitment is for a full semester in the honors course.

ADVANCED PLACEMENT COURSES

Londonderry High School offers eleven Advanced Placement (AP) courses. AP courses are offered through the College Board and therefore follow national curricula. The cost of one AP examination is approximately \$85.00. Students taking AP courses are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May. The benefits of taking AP exams are multiple. The AP exam fee is approximately 1/5 of a three credit college course; those students scoring a 3 or higher on any AP examination may receive college credits or advance into the second semester of required freshman course(s). Students have until June 15th of each school year to decide if they wish to send their score report to the college of their choice. For more information, contact the Guidance Director. AP courses include:

CALCULUS AB	COMPUTER SCIENCE A
ENGLISH LANGUAGE	ENVIRONMENTAL SCIENCE
ENGLISH LITERATURE AND COMPOSITION	FRENCH LANGUAGE
EUROPEAN HISTORY	STATISTICS
SPANISH LANGUAGE	UNITED STATES HISTORY
UNITED STATES GOVERNMENT AND POLITICS	

Advanced Placement classes are weighted in the grade point average computation. GPA and weighting take effect at the completion of a specific course and are based on final averages in the course.

PROJECT RUNNING START

The New Hampshire Project Running Start is an educational initiative for high school students in collaboration with the New Hampshire Community Technical College (NHCTC). This program gives students the opportunity to enroll in specific college courses offered at their high school during the regular school day. Students who choose to enroll in Project Running Start receive high school credit as well as college credit for the course. College credits can be used to continue at NHCTC or may be transferred to other colleges. Students pay a \$100.00 fee to NHCTC per course to enroll in the program. For more information, contact the Curriculum Office. Project Running Start courses include:

ACCOUNTING I	HONORS PHYSICS
ANATOMY AND PHYSIOLOGY	INTEGRATED MATH IV (ANTICIPATED)
AP COMPUTER SCIENCE/JAVA	INTRODUCTION TO C++ PROGRAMMING
BIOTECHNOLOGY/MICROBIOLOGY	INTRODUCTION TO ENGINEERING DESIGN
CALCULUS	MARKETING
COMPUTER MAINTENANCE AND REPAIR I	PHOTOGRAPHY
COMPUTER MAINTENANCE AND REPAIR II	PRINCIPLES OF ENGINEERING
EXPLORING/PRACTICING ART OF TEACHING	VISUAL BASIC.NET

PROCEDURE FOR COLLEGE OR CORRESPONDENCE COURSES (OFF-SITE FROM LHS)

Any student wishing to enroll in college or correspondence courses outside of Londonderry High School must receive pre-approval from the student's Assistant Principal. If approved, the course(s) taken will be placed on the student's transcript with the grade and earned credit. However, the grade will not be factored into the student's cumulative grade point average. Adult Education, Summer School and Bridges courses are excluded from this procedure.

The student/family must meet with the student's Assistant Principal prior to any enrollment. The student must provide the following information at this meeting:

- Name of Institution
- Address of Institution
- Name of Course (including syllabus, course description, length of course, and total hours of classroom time)

Upon completion of the course, the student must provide an official transcript from the institution to the Guidance Director in order for the course to be added to the transcript. (Please note: a student may use this procedure to replace the required course credit for a failed LHS course. However, the earned off-site credits cannot exceed the credits of the failed LHS course.)

AUDITING COURSES

Students interested in auditing a course must meet with the Guidance Director prior to the start of each semester. Auditing allows a student to enroll in a class, but not receive credit or a GPA grade. If auditing is approved and all course requirements are met, the course number and symbol AU will appear on the student's transcript. Students must attend the class daily and must complete all assignments.

WITHDRAWAL FROM COURSES

Official withdrawal must be initiated through the appropriate guidance counselor. Any approved withdrawal (not course level change) after the sixth week or 30 days of a full year or semester course will be indicated on the report card and transcript with a permanent grade. Each request for withdrawal will be considered on its own merit with regard to the educational needs of the student. A WP will be issued for a student who is passing and a WF will be issued for a student failing the class at the time of the withdrawal. The WF will equal 0.00 grade points and will be factored into the student's cumulative grade point average. Any withdrawal request must have the final approval of the Guidance Director.

REPORTING STUDENT GRADES

Report cards are issued four times per year at the end of each marking quarter in November, January, April, and June. Progress reports are issued to all students midway through each marking period in October, December, March, and May.

PARENT PORTAL AND STUDENT PORTAL THROUGH X2

All parents and high school students have access to view their assignments, grades and attendance through the X2 portal. In order to access this information, you will need to have a username and password. If you need this information, please see Mr. Dutton in House 1. The website is x2.londonderry.org.

GUIDANCE SERVICES

Every student at Londonderry High School is assigned to a guidance counselor. Students have access to counselors on an individual and/or group basis whenever the need arises. The purpose of counseling is to help students make intelligent decisions that meet their personal, educational, and vocational objectives. The counseling staff is concerned with helping students gain a clearer understanding of their abilities and interests. However, students have the responsibility to decide for themselves the important goals for their lives, and they are accountable for their decisions.

LHS Guidance components include:

- Provide counseling for students with personal concerns.
- Provide academic counseling for students.
- Provide informational services for students and parents.
- Assist students with college and career planning.
- Serve as a consultant to parents of assigned students.
- Collaborate with and serve as a resource person to faculty, staff, and administration.
- Contribute to the continual promotion of an educational climate in which students can grow intellectually and emotionally.

Students can schedule appointments to see their guidance counselor during a study period, lunch, and/or before or after school. Parents or guardians are encouraged to call their child's counselor with concerns. Counselors and teachers welcome conferences. All conferences with teachers should be arranged through the Guidance Department.

STUDENT RECORDS (*According to Londonderry School District Policy*)

Student records are maintained for each student in the following categories: directory information, academic records, standardized and individual testing, individual education plans, pupil placement team recommendations, attendance and enrollment data, and health records. The school principal is responsible for the maintenance of these records. The Guidance Director shall make a written record of the disclosure of all student information except directory information, and such record will be kept in the student's file. This record of disclosure is also available for inspection by the parent or eligible student*. A record of inspection will also be kept.

Amendment of Records: The parent or eligible student may request that the record be amended in respect to information alleged to be inaccurate, misleading, or in violation of the privacy rights of the student. Such requests shall be in writing, dated, and addressed to the principal. In the event that the school district decides to refuse the request to amend, the Guidance Director shall inform the parent or eligible student and shall advise said person of his/her rights to a hearing in compliance with the law.

Destruction of Records: As a general rule, all student records except the permanent record (student grade transcript) will be destroyed within five years after the student graduates or otherwise withdraws from school. The permanent school record will be retained by the school for a minimum of 50 years.

Parents and eligible students wishing to inspect student records must file a written request to do so with the Guidance Director. Single copies of records will be made available to parents free of charge. Additional copies are five cents per page. Records will be kept in the student's file of all copies made, when made, and to whom provided.

**Eligible student shall mean a student who has attained 18 years of age or is attending an institution of post-secondary education. Parent shall mean a student's biological or adoptive father or mother or court-appointed guardian or agency legally authorized to act on behalf of the child in place of, or in conjunction with, the father, mother, or guardian. The term as used shall include a divorced or separated parent, subject to any written agreement between parents or court order governing the rights of such parent that is brought to the attention of the school Guidance Director.*

ADMISSION TO POST-SECONDARY SCHOOLS

Requirements vary from school to school; therefore, students and parents are advised to review the catalogs of the schools in which they are interested for their particular admission requirements. Many catalogs are available in the Guidance Department or can be obtained directly from the college. During the school year, admissions officers from many post-secondary schools will visit our school. The dates of these visits will be announced. Interested juniors and seniors will be given the opportunity to meet with these representatives to discuss their schools with them. Suggested completion of the following must be considered when applying to post-secondary schools.

	English	Mathematics	Social Studies	Science	Foreign Language
Highly Selective College	4 years (8 semesters)	4 years (8 semesters) Including Algebra I, Geometry, Algebra II, Trigonometry, and Pre-Calculus or Calculus	3-4 years (6-8 semesters) Including advanced level electives	3-4 years (6-8 semesters) Including Biology, Chemistry, and Physics	3-4 years (6-8 semesters) at the high school level Recommended that a student study one language for a continued sequence
Four-Year College	4 years (8 semesters)	3-4 years (6-8 semesters) Including Algebra I, Geometry, Algebra II	3 years (6 semesters)	2-3 years (4-6 semesters) Including Biology, and Chemistry or Physics	2-3 years (4-6 semesters) at the high school level Recommended that a student study one language for a continued sequence
Two-Year/Vocational and Technical Institute	4 years (8 semesters)	3 years (6 semesters) Including Algebra I and Geometry	3 years (6 semesters)	2-3 years (4-6 semesters) Including Biology, and Chemistry or Physics	Not Required

Students are advised to follow a solid college preparatory program throughout their four years of high school if they wish to be competitive for college admission. A substantial deviation from the suggested program may jeopardize the achievement of this objective. It is suggested that parents make an appointment with the guidance counselor prior to the middle of the student's junior year to discuss college planning. College admissions personnel look very closely at the following:

- **Academic Record (Transcript):** Most important is the student's academic record since the ninth grade with special emphasis on junior and senior years. Consideration is given to the level of difficulty of courses taken, academic performance within those courses, and the student's overall grade point average.
- **College Admission Tests:** The SAT Reasoning Test or the ACT (American College Test) is required by most, but not all, four year colleges and many two year schools. The SAT Subject Tests are required at fewer, but often more selective schools. In some cases, the ACT exam may substitute for the subject tests, and nearly always may be used instead of the Reasoning Test. See college catalogs or *The College Handbook* for specific information. The SAT Reasoning Test is generally taken in the spring of the junior year and the fall of the senior year. Test dates and application forms are available in the Guidance Department.
- **Letters of Recommendation**
- **Co-Curricular Activities:** The emphasis varies from college to college, but it is generally preferred that students be active contributors in one or two areas rather than superficial participants in many activities.
- **Senior Achievements:** All colleges request end-of-year grades. Some schools have withdrawn acceptances because of poor performance and a limited course load in the second semester. Seniors

are encouraged to continue to take challenging and demanding courses as well as use the time to explore new subject areas.

ARTICULATION AGREEMENTS

Londonderry High School and the following colleges have developed a program to accommodate and assist students throughout the admissions process.

Chester College	Manchester Community College	Rivier College
Colby-Sawyer College	Nashua Community College	Southern NH University
Franklin Pierce University	New England College	SNHU Advantage
Granite State College	NH Institute of Art	Suffolk University
Great Bay Community College	New Hampshire Technical Institute	UMass Lowell
Keene State College	Northern Essex Community College	UNH Durham
Lakes Region Community College	Plymouth State University	UNH Manchester

The LHS college articulation agreements seek to encourage all LHS students to consider post-secondary options and to make Londonderry course selection more purposeful for students. LHS courses, cumulative grade point averages and the successful compilation of application materials are an integral process by which LHS students may benefit from non-binding early acceptance, merit scholarships, campus tours and on-site interviews at LHS.

SCHOOL-TO-CAREER CENTER (STC)

The STC Center assists students in career development and planning. The STC Center helps students assess their interests and abilities and helps them plan for further education toward career goals. Through the STC Center, students can arrange job shadows, student internships, and other work-based learning. Students can also visit the Job Placement Specialist to find employment while in school and after graduation. The Job Placement Office provides referrals to local employers and provides training in job readiness skills.

PORTFOLIOS

Students choosing certain career paths may be required to produce a portfolio for admission to post secondary education in that field. Students should contact the institution in which they have an interest to obtain the portfolio requirements. They should then contact the Londonderry High School Guidance director for further instructions.

ALTERNATIVE EDUCATION

ADULT EDUCATION PROGRAM

Londonderry Adult Education recognizes that a typical school day is not exclusively the way to meet the educational needs of all students. The Londonderry Adult Education Program is endorsed by the Londonderry School District and provides an alternative path towards a high school diploma. This program employs various teaching methods to reach all learning styles in order to equip students with the tools necessary to achieve success. The Londonderry School District holds to the fundamental truth that all children are capable of achievement.

The Londonderry Adult Education academic program serves two purposes. Students who wish to remain in our day program and earn the 24 credit Londonderry High School diploma may still take night classes and apply those grades/credits to the day program.

Students who seek a 20 credit Adult Education HS diploma, in consult with their parents, will withdraw from day school and transfer into the Adult Education Program. These individuals will be night school students who will apply previous credits earned toward this diploma. Students / parents from Londonderry and surrounding towns will meet with the guidance department and program director to map out an academic course of action.

This is a tuition program with classes running on Tuesday or Thursday nights for fifteen weeks. The fall semester runs from September through January and the spring semester begins in February and ends in May, with graduations held for each semester class. For more information, please contact the Program Director or visit the school's website.

SUMMER SCHOOL

The summer school program shares the same philosophy as the Adult Education Program, offering students who are behind in credits and at-risk of not graduating an extension to their school year where they can gain additional credits and make up previously failed courses. A variety of classes are offered in this five week summer program for students in grades 9 – 12. Students can earn a half credit for each course they take. There is a fee for each course and courses run from 8:00 AM to 10:00 AM and 10:15 AM to 12:15 PM.

Summer school is suggested for any 8th grade student who fails to pass a core course during their last year at the middle school. Less than ½ of the students choose to do so. Because they have already matriculated out of the Middle School, there are no incentives that are likely to increase participation. This program will offer them the opportunity to start out knowing more than their peers do about the new academic environment, something that might be novel, but that should be motivating for these children. That sense of investment, along with the chance to earn credit, will make the program a cost-effective way to serve our at-risk population.

LHS INCOMING FRESHMAN TRANSITION (LIFT)

LIFT is a transition program at LHS that is designed to meet the needs of incoming 9th graders as an alternative to traditional summer school offerings. The program will award participants a ½ credit in Reading and a ½ credit in Study Skills. The goal of this program is to increase student skills to better prepare them for entering the high school, increase student investment and connection to the school, educate students about the services offered through the high school, and create an understanding of the essential nature of the skills high school provides for students entering the workforce and/or post-secondary education. This program runs on a regular summer school time frame from 8:00-12:15 serving 20-24 students, and is staffed by two classroom teachers.

GENERAL EDUCATION DEVELOPMENT (GED)

Londonderry High School is an accredited site for students who would like to pursue their GED. This program provides an opportunity for individuals to earn a certificate outside of high school. Individuals interested in pursuing their GED are required to meet with the Chief Examiner or the Guidance Director to discuss a course of action. Generally, students will take a series of practice tests at the high school to assess their level of achievement before taking the official test. Individuals may schedule an appointment to take the test upon availability. A fee of \$15 is charged for the practice test and \$65 for the official test.

PROGRAMS AND SERVICES

VEHICLE AND PEDESTRIAN SAFETY (DRIVER EDUCATION)

The Londonderry School District contracts with privately owned and operated Driver Education Schools for this service.

This driver education course is designed to prepare young people for entry into the traffic system as an operator of automobiles. Courses are offered six times a year during the fall, winter, spring and summer. Included in the automobile driver education program are thirty (30) hours of classroom instruction and eight (8) hours of driving. Students must be 15 ½ years of age or older prior to enrollment in the course and must be physically and mentally capable of operating a motor vehicle. On site licensing is available if the student is 16, successfully completes all course requirements, and has approval of instructor. Students are reminded that this course requires a full-time commitment. If students feel that they will not be able to attend all the classes and driving times due to work, family vacations, etc., it would be unwise to sign up for this course. Students will be dropped from the driver education program if they miss two sessions or more than one scheduled driving lesson.

A fee is charged for this program. Open to Grade 9 only with approval of the instructor.

LIBRARY MEDIA SERVICES

The Library Media Center seeks to ensure that all students and staff are effective users of ideas and information. The library media program, its facilities, resources and instruction play an integral role in supporting and implementing the curriculum at Londonderry High School. Library Media Specialists work in partnership with classroom teachers to teach information skills in conjunction with content area assignments. The library collection includes books, videos, periodicals and an extensive print and electronic reference collection. A “virtual library” can be accessed via the Library Media Center Web Site (<http://schools.londonderry.org/lhs/lmc>) and provides information from a wide range of online subscription services not freely available on the Internet.

RESPONSE TO INTERVENTION (RTI TEAM)

The purpose of the RTI team is to problem solve and design activities to eliminate the difference between “what is” and “what should be” with respect to student development. The RTI team involves a collaborative effort to identify the student’s current level of performance, desired level of performance and variables that are preventing the student from attaining that desired level. Using various strategies, the RTI team seeks to maximize the use of available resources prior to a Special Education or 504 referral. RTI requires collaboration and team building among the administration, teachers, guidance counselors, specialists and parents to ensure a successful implementation of the RTI model.

SPECIAL EDUCATION SERVICES

The Special Education Department offers a wide variety of services designed to meet the needs of individual students. Students can be referred for special education through teacher, parent request or RTI Team recommendation; however, students must meet established criteria in order to be eligible for special education services. If the criteria are met, an Individualized Education Program (IEP) will be developed by a placement team (parent and school representatives), which specifies services to be delivered by the school and responsibilities to be accepted by students and parents. Please see the Special Education course offerings.

CO-CURRICULAR ACTIVITIES

Athletics, along with clubs, organizations and other activities, comprise the co-curricular program. All students are encouraged to participate and should be willing to devote the time and effort necessary to contribute to the growth and success of the activity. **All students must pass 5 classes during the previous marking term in order to participate in any sponsored club, activity or sport.** To be eligible for school activities, a student must be in good standing. To participate in a school activity on a non-school day, a student must be present on the last school day prior to the activity. Students dismissed from school on the day of an activity or on the last school day prior to a non-school day activity, must return to school prior to the close of the school day or must receive permission of an Assistant Principal in order to be eligible for participation in the school activity. This regulation applies to all school activities, including athletics, dances, performances, etc. Students who violate the Student Use/Abuse Policy on school district property or at a school event will be ineligible for co-curricular activities for 180 school days.

CAREER CLUSTERS/PATHWAYS

Students at Londonderry High School may select to participate in one of our designated career clusters/pathways. Courses are organized in a logical sequence which allows a student to explore a subject of interest, to develop or enhance individual talents and to expand one's knowledge of potential careers. Students interested in pursuing one of the clusters/pathways are urged to work closely with their guidance counselors, teachers and parents throughout the course selection process.

ACADEMY OF FINANCE (AOF)

See course descriptions under Business and Computer Technology

The Academy of Finance is a nationally-acclaimed, industry-validated curriculum model sponsored by the National Academy Foundation (NAF). The Academy of Finance prepares students for post-secondary education in finance-related majors as well as other courses of study that demand a strong academic foundation in math, social studies, and writing. Following AOF guidelines, students take a series of rigorous elective courses during their junior and senior years. In addition to academic course work, students participate in a variety of work-based learning activities. A key component of the program is a 150 hour internship (paid or unpaid) between junior and senior year. To be eligible for the internship, students must maintain good grades and attendance. Students who complete the entire program will receive a National Academy Foundation Certificate of Financial Studies.

Sophomores apply to the Academy of Finance by application during course registration.

The recommended sequence of courses is listed below.

Recommended Course Sequence

Prior to Junior Year	Business and Computer Applications	Required
Junior Year	Economics Financial Services (formerly Banking and Credit) Accounting I	Required Required Required
Senior Year	Financial Planning International Business and Finance (formerly International Business and Finance)	Required Required

ATHLETIC TRAINING

See course descriptions under Health/PE

This selection of courses offers the student a foundation of knowledge focused on the diagnosis, treatment, and prevention of injury sustained during athletic endeavors with the goal of restoring function. Students will take the selected required courses including Athletic Training/Sports Medicine I and II where students will be required to complete a practicum with the LHS Athletic Trainer. This may require course work to be completed outside of the traditional school day.

Recommended Course Sequence

Prior to Junior Year	Freshman Science Health Biology PE (1 credit requirement)	Required Required Required Required
Junior/Senior Year	Chemistry Anatomy & Physiology Physics Psychology Athletic Training I/Sports Medicine Athletic Training II/Sport and Exercise Science	Required Required Required Required Required Required
Optional Course Offerings	Information Technology Contemporary Issues in Health PE Interactive Student Internship	Recommended Recommended Recommended Recommended

BIOTECHNOLOGY TECH PREP PROGRAM

See course descriptions under Science

Biotechnology combines our advanced understanding of living organisms with cutting edge technological tools to create products and processes that enhance the quality of life and benefit people worldwide. The goals of the Biotechnology Tech Prep Program are to foster an environment where career exploration in the emerging biotechnology field can flourish and to create a pathway that includes courses and experiences that lead to postsecondary admission and the opportunity of earning college credit. Biotechnology is a Project Running Start class.

Recommended Course Sequence

First Year	Second Year	Recommended Courses
Biology Algebra I	Chemistry Biotechnology English	Algebra II Advanced Topics in Chemistry

COMPUTER MAINTENANCE AND REPAIR

See course descriptions under Business and Computer Technology

Students will learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. In addition, these courses include an introduction to networking. Upon successful completion, the student receives a Certificate of Completion for Information Technology Essentials I: PC Hardware and Software. They will also be prepared to sit for the CompTIA A+ certification exam. The A+ certification signifies that the certified individual possesses the knowledge and skills essential for a successful entry-level computer service technician position. Computer Maintenance and Repair I and II are Project Running Start classes.

Recommended Course Sequence

S1	S2
Computer Maintenance and Repair I	Computer Maintenance and Repair II

FUTURE EDUCATORS ACADEMY

See course descriptions under Special Programs

The Future Educators Academy is an opportunity to explore the field of teaching. It includes two rigorous courses that prepare students for postsecondary enrollment in a teacher preparation program. To enroll in the first course -- Exploring the Art of Teaching -- students must have a C+ cumulative grade point average. Enrollment in the second course -- Practicing the Art of Teaching -- is restricted to those students who complete the first course with a minimum grade of B. The curriculum has been approved by the Education Chairs at NHCTC-S as comparable to Foundations of Education and, through Project Running Start, is offered for three transferable college credits.* Additionally, contingent upon academic performance in the FEA courses, students choosing postsecondary enrollment at Southern New Hampshire University, Rivier College, or UNH may be exempted from taking the Intro to Teaching course at these institutions. To earn a certification of completion from Londonderry High School, FEA students must earn a total of four (4) credits. To earn the credits, students must first take the required courses. If these do not equal four credits, students must make up the difference with one or more of the recommended electives. *The registration process for Foundations of Education will occur at the beginning of the second course. There is a \$100.00 fee, payable to NHCTC (fee subject to change).

Required Courses	Recommended Courses
Business and Computer Applications	Probability and Statistics
Honors Writing Workshop/College Prep Writing Workshop	Psychology
US History	Chemistry
Exploring the Art of Teaching	Parenting and Children
Practicing the Art of Teaching	

INFORMATION TECHNOLOGY

See course descriptions under Business and Computer Technology

The IT Pathway is built on a sequence of courses that lead to postsecondary enrollment in a focused area of computer study. At the present time Londonderry High School offers a programming pathway and a web development and design pathway. The first two courses of the programming pathway provide a solid foundation in problem solving and programming logic. Students then expand on their expertise by continuing on to advanced courses. Some of these courses are currently being taught at the college level so that high school students can earn dual credit through Project Running Start. Students who choose to pursue the web development and design pathway are expected to complete the pathway with an independent study class where they will apply their skills to a semester-long project.

Programming Pathway Required Courses	Web Development and Design Pathway Required Courses
Structured Programming I	Web Development and Design I
Structured Programming II or Visual Basic.Net	Web Development and Design II
C++ Programming	Animation for the Web
AP Computer Science	Independent Study

MASS COMMUNICATIONS

See course descriptions under appropriate departments

The Mass Communications Pathway offers students an interdisciplinary foundation in the basic theories, principles and skills necessary to prepare students for future leadership roles in communications media. Students will take the selected required courses and then specialize in one of the three areas—print, telecommunications or visual communications. Students will also have the opportunity to complete independent projects that allow them to have real world experience as well as pursue internships.

Core Courses	Specialty Area
<p>Required Courses Basic Design Desktop Publishing or Web Development & Design I Honors Writing Workshop, College Prep Writing Workshop or Mass Media</p> <p>Recommended Courses Career Exploration Public Speaking Student Internship Word Processing</p>	<p>Print College Prep Journalism I College Prep Journalism II Sports Journalism (optional)</p>
	<p>Telecommunications Radio Broadcasting & Production Basic Video Production/Video Production Lab and/or Television Production & Advanced Television Production</p>
	<p>Visual Communications Computer Graphic Design Yearbook Animation for the Web (optional) Photography Advanced Photography (optional)</p>

PROJECT LEAD THE WAY

See course descriptions under Technology Education

Project Lead the Way is a pre-engineering program with a three course sequence designed to help the student explore technology-related careers. Each class uses state-of-the-art technology equipment and software and is taught in a laboratory setting that involves projects rather than lectures to learn material. The program allows students to apply their math and science skills to real world problems. Students will have the opportunity to explore the broad field of engineering to help them make career decisions. Introduction to Engineering Design is a Project Running Start course.

Year 1	Year 2	Year 3
Introduction to Engineering Design	Principles of Engineering	Digital Electronics

TELEVISION PRODUCTION AT LONDONDERRY HIGH SCHOOL

See course descriptions under Technology Education

This is a two-year vocational program that focuses on exposing students to the wide range of career options in the field of television production. Students in the first year of the program will learn and practice the fundamentals of studio and remote production. Students in the second year of the program will develop a variety of projects for a video resume and will also create a written resume suitable for college applications or job interviewing. This double block class meets at the Londonderry Access Center and student productions may be cablecast on LEO 21, Londonderry's educational access channel. Students completing course work will receive a Certificate of Completion in Television Production from Londonderry High School after they have successfully completed both Television Production and Advanced Television Production courses.

CAREER AND TECHNICAL (CTE) SCHOOL ADJUNCT PROGRAMS AT MANCHESTER SCHOOL OF TECHNOLOGY (MST) AND ALVIRNE VOCATIONAL HIGH SCHOOL

See course descriptions under Career and Technical Education Programs

Londonderry High School juniors and seniors who complete the two-year CTE school programs at MST or Alvirne are issued a certificate of completion in the student's area of study.

ART

Course Name	Semester	Grades	Prerequisite
Art History & Appreciation	S2	9-12	
Basic Design	S1/S2	9-12	Prerequisite for additional studio art courses
Drawing	S1/S2	9-12	Basic Design
Advanced Drawing	S2	10-12	Basic Design and Drawing
Oil Painting	S1	10-12	Basic Design and Drawing
Acrylic Painting	S2	9-12	Basic Design and Drawing
Commercial Arts	S2	9-12	Basic Design
Sculpture	S2	9-12	Basic Design
Ceramics I	S1/S2	9-12	Basic Design
Ceramics II	S2	10-12	Basic Design and Ceramics I
Art Interactive	S1	10-12	
Studio Art	S1/S2	11-12	Basic Design and TWO or more semesters of advanced art courses

ART HISTORY & APPRECIATION

GRADES 9-12—S2

This course will be an overview of the visual arts, beginning with Prehistoric times and emphasizing the time period from the Renaissance to the present. The focus will be on the styles and artists in the areas of painting and sculpture. Students will have the opportunity to become more aware of the role of the visual arts in human history, to develop their own aesthetic sensitivity and critical judgment, and to become more open to the cultural and personal enrichment that the visual arts can provide. Students will be involved in assigned readings, research, class discussions, and slide presentations. Art History & Appreciation is a hands-on, project-oriented course.

BASIC DESIGN

GRADES 9-12—S1/2

This studio course will provide a foundation for all other art courses. Students will increase their awareness and understanding of the basic elements and principles of design, which are fundamental to all visual art forms. Drawing skills will be developed and strengthened because such skills are essential for the growth of personal expression in both two-dimensional and three-dimensional media. Equally important will be the emphasis on providing experiences that will promote creative thinking techniques and problem solving skills that are essential in the visual arts and in all other areas of human endeavor. Basic Design is a studio course with some lecture and discussion.

Prerequisite for additional studio art courses

DRAWING

GRADES 9-12—S1/2

Students will develop their drawing skills while learning the principles behind good pictorial composition. A variety of subject areas will be explored, including portrait and architectural studies. Students will, with a variety of media, draw from observation and imagination. Drawing is a studio course with some lecture and discussion.

Prerequisite: Basic Design

ADVANCED DRAWING

GRADES 10-12—S2

Students will have the opportunity to increase their drawing skills using color, as well as their understanding of the principles of good composition. A variety of subject areas with an emphasis on portrait and figure studies will be explored. Students will concentrate on drawing from life using a variety of different media. Advanced Drawing is a studio course with some lecture and discussion.

Prerequisite: Basic Design and Drawing

OIL PAINTING

GRADES 10-12—S1

The objective of this course is to stress pictorial composition, and color theory and to reinforce principles of design while introducing a variety of oil painting techniques. Students will work from direct observation and memory while studying various painting styles, including Renaissance, and emphasizing the modern and postmodern art of today. Choice and care of materials will be stressed. Strong drawing skills are required. Oil Painting is a studio course with some lecture and discussion.

Prerequisite: Basic Design and Drawing*

***Drawing may be waived with permission of instructor**

ACRYLIC PAINTING

GRADES 9-12—S2

This course will introduce a variety of water media painting techniques, including watercolor, acrylic and gouche. Basic elements and principles of design, along with composition and color theory, will be reinforced. Students will be exposed to major styles of painting through painting techniques. Choice and care of materials will be stressed and strong drawing skills are required. Acrylic Painting is a studio course with some lecture and discussion.

Prerequisite: Basic Design and Drawing*

***Drawing may be waived with permission of instructor**

COMMERCIAL ARTS

GRADES 9-12—S2

This course will emphasize the application of the elements and principles of design in the commercial arts, where aesthetics and function are inseparable. Students will design products and packages and create illustrations for logos of companies created by students, magazine covers, and advertisements. Students will learn to combine illustrations and words to produce finished commercial art pieces. This will be accomplished through hand-drawn and computer-generated images and typography. Career possibilities will be explored. Commercial Arts is a studio course with some lecture and discussion.

Prerequisite: Basic Design

SCULPTURE

GRADES 9-12—S2

In this course, students will have the opportunity to develop three-dimensional art forms in both in-the-round and relief using a variety of materials such as natural clay, plaster, wire, and foam core. Students will explore the four basic sculpture methods: modeling, construction, carving, and casting. Students will also experience the casting process using a plaster waste mold. Sculpture is a studio course with some lecture and discussion.

Prerequisite: Basic Design

CERAMICS I

GRADES 9-12—S1/2

The objective of this course is to develop skills, both hand building and wheel working, with natural clay materials. Students will experience various methods of construction and glazing techniques. Students will experience the works of professional ceramic artists and will be presented with the cultural and historical background of the craft. Functional, decorative, and sculptural pieces will be produced. Ceramics I is a studio course with some lecture and discussion.

Prerequisite: Basic Design

CERAMICS II

GRADES 10-12—S2

The objective of this course is to further develop skills in hand building and wheel working. Individual major projects will be required and both functional and sculptural pieces will be produced. Students will experience the works of professional ceramic artists and the cultural and historical background of the craft will be further explored. Ceramics II is a studio course with some lecture and discussion.

Prerequisite: Basic Design and Ceramics I

ART INTERACTIVE

GRADES 10-12—S1

The purpose of this course is to provide students the opportunity to work with the special needs population and to provide a diverse educational opportunity in the arts to all students who participate in the class. Students will work together in small groups throughout the semester. The elements and principles of design will be introduced and explored through a variety of materials. This course would be an excellent choice for students considering a career working with the special needs population, in education, or in art therapy. Art Interactive is a studio course that covers several different units with some lecture and discussion included.

STUDIO ART

GRADES 11-12—S1/2

This course is designed for those students who are preparing for a career in the arts. This is an opportunity for students to develop a portfolio and artistic statement to submit to colleges and professional art schools. Projects will be centered around drawing, various painting techniques and three-dimensional designs. Students will participate in group discussions on art philosophy, aesthetics, the creative process, art criticism and the art market. Students will also have the opportunity to visit museums through possible field trips and representatives from art schools will provide portfolio reviews and program overviews.

Prerequisite: Basic Design and TWO or more semesters of advanced art courses

BUSINESS & COMPUTER TECHNOLOGY

Course Name	Semester	Grades	Prerequisite
Introduction to Business	S1/S2	9-10	
Word Processing	S1/S2	9-12	
Business Computer Applications	S1/S2	9-12	Required for AOF
Microsoft Office Specialist	S1/S2	9-12	
Desktop Publishing	S1/S2	10-12	
College Prep Accounting I	S1/S2	9-12	Required for AOF
College Prep Accounting II	S1/S2	10-12	Accounting I
College Prep Marketing	S1/S2	10-12	
College Prep Financial Services (formerly known as CP Banking and Credit)	S2	10-12	Required for AOF
College Prep Financial Planning	S1/S2	11-12	Required for AOF
College Prep Business Management	S1/S2	10-12	
Business Law Studies	S2	11-12	
College Prep Global Financial Studies (formerly known as CP International Business & Finance)	S2	11-12	Required for AOF
Information Technology and Me	S1/S2	9-12	Also listed under Special Education
Information Technology	S1/S2	9-12	Informal or CP Algebra I or concurrent enrollment
Structured Programming I	S1/S2	9-12	Informal or CP Algebra I or concurrent enrollment
Structured Programming II	S2	9-12	Structured Programming I
College Prep Visual Basic	S2	9-12	Structured Programming I
Honors C++ Programming	S1/S2	10-12	Structured Programming II or VB.Net
Web Development & Design I	S1	9-12	
Web Development & Design II	S2	9-12	Web Development & Design I
Yearbook	S1/S2	9-12	Interview with instructor for editorial staff only.
Animation for the Web	S1/S2	9-12	
AP Computer Science	S1/S2	11-12	
College Prep Computer Maintenance & Repair I	S1	9-12	
College Prep Computer Maintenance & Repair II	S2	9-12	Computer Maintenance & Repair I
Computer Interactive	S1/S2	10-12	Interview with instructor

INTRODUCTION TO BUSINESS

GRADES 9-10—S1/2

This course focuses on the role of business and government in the economic environment in which we live. Students will be involved in discussions and activities pertaining to economics, consumerism, banking services, employment applications, interviewing skill, marketing basics, management essentials, and principles of entrepreneurship. Students interested in learning more about the world of business and possibly running their own business in the future should take this course.

WORD PROCESSING

GRADES 9-12—S1/2

In Word Processing, the student is taught to increase speed and accuracy in handling introductory to complex word projects. The goal of this course is to teach the student how to create professional looking documents by taking advantage of the simple and complex features of the Word Processing package.

BUSINESS COMPUTER APPLICATIONS

GRADES 9-12—S1/2

This course covers all the fundamental aspects of Microsoft Windows, Microsoft Office Manager, Microsoft Word, Excel, Access, Power Point and OLE. When students complete this course, they will have a firm knowledge of the many capabilities of word processing, spreadsheet creation, database development and presentation graphics in a window environment as well as the development of integrated solutions to personal and business problems through the use of OLE.

This course fulfills the Computer Education requirement. This course is open to all students, but required for the Future Educators Academy and Academy of Finance students.

MICROSOFT OFFICE SPECIALIST CERTIFICATION

GRADES 9-12—S1/2

This course provides comprehensive instruction on the use of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, or Microsoft Access. Through hands-on experience, students will have the opportunity to develop a variety of skills in two of these applications. Upon completion of this course, the student will be prepared to take Microsoft Office Specialist Certification Exams. The Microsoft Office Specialist Program provides an industry recognized standard for measuring an individual's mastery of office applications.

Course may be taken twice for credit.

DESKTOP PUBLISHING GRADES 10-12—S1/2

Desktop Publishing is the process of creating computer-generated publications that appear to have been professionally printed. In this course, students will use Adobe InDesign and Photoshop software to create, edit, and layout text, as well as scan, import and manipulate graphics. In addition, they will learn the basic principles of typography, page layout, and graphics needed to create effective and pleasing business cards, letterhead, invitations, greeting cards, programs, newsletters, advertisements, and other types of printed materials.

COLLEGE PREP ACCOUNTING I

GRADES 9-12—S1/2

In Accounting I, the student will learn the accounting cycle from the analysis and recording of business transactions to the preparation of financial statements. Attention will be given to payroll records, preparation of the payroll, and the payment of employer's payroll taxes.

This course is a Project Running Start course.

This course is open to all students, but required for Grade 11 Academy of Finance students.

COLLEGE PREP ACCOUNTING II

GRADES 10-12—S1/2

Further competence in accounting skills is emphasized in this course which includes more of the elements of accounting theory and more complicated and sophisticated accounting concepts. The computer will be integrated in all phases of the accounting cycle. Students will have the option of taking this course for honors or college prep credit. The teacher will present the honors option at the beginning of each semester.

Prerequisite: College Prep Accounting I

COLLEGE PREP MARKETING

GRADES 10-12—S1/2

In this course students obtain the skills needed to understand the functions of marketing. Students will learn about product/service management, promotion and selling, target marketing and the marketing mix. This course introduces students to careers in the marketing field. This is an ideal course for students who are interested in majoring in general business or marketing in higher education. Students are encouraged to join DECA, a student organization whose goal is for students to develop a "career success kit" to carry into their business and personal lives.

Students will have the opportunity to participate in the operation of the school store, The Lancer Locker.

This course is a Project Running Start course.

COLLEGE PREP FINANCIAL SERVICES (formerly known as CP BANKING AND CREDIT)

GRADES 10-12—S2

Financial Services (formerly known as CP Banking and Credit) provides students with an overview of banks and other financial services companies. It is one of the core courses offered by the Academy of Finance. Financial Services introduces students to the complex world of financial services companies. It begins with an introduction to the origins of money and banking, and explores the history of banking in the U.S. Students study the financial services industry and explore the types of companies that make up the industry. Students learn about the services offered by such companies and analyze the ways these companies earn profits. This course also introduces students to the main concepts behind investing and discriminates among different ways to invest money. Students examine contemporary issues including savings, ethics, and the effect of the industry on communities and families.

This course is open to all students, but required for Grade 11 Academy of Finance students.

COLLEGE PREP FINANCIAL PLANNING

GRADES 11-12—S1/S2

Financial planning is the process of managing finances in order to meet life goals. This one-semester course introduces the student to the financial planning process and the components of a comprehensive financial plan. The student will learn how to prepare a financial plan that includes saving for the future, managing investments such as stocks and bonds, mutual funds, real estate, and other alternatives, as well as retirement and estate planning. Students will have the opportunity to create a securities portfolio to track their investments using "real world" gains and losses.

This course is open to all students, but required for Grade 12 Academy of Finance students.

COLLEGE PREP BUSINESS MANAGEMENT

GRADES 10-12—S1/S2

This course is designed to provide the student with an understanding of the characteristics, the organization, and the operation of business. The course covers topics such as entrepreneurship, ethics, social responsibility, successful business leader profiles, and an introduction to conducting business abroad. Students will also explore the components of a comprehensive business plan. This course is designed for the student who is exploring the possibility of a career in business.

BUSINESS LAW STUDIES GRADES 11-1—S2

This course is designed to give the student some practical knowledge of the principles of law. Legal problems of today, rights and obligations of citizens, basic constitutional and business law will be studied. Some of the major topics include: consumer law, laws for minors, legal contracts, real estate, citizenship and real papers.

COLLEGE PREP GLOBAL FINANCIAL STUDIES (formerly known as CP INTERNATIONAL BUSINESS AND FINANCE) GRADES 11-12—S2

This one-semester course explores the major components of the international financial system. It includes the study of foreign trade, the international monetary system, foreign exchange rates, foreign exchange markets, international

financial markets, international banking, and the multinational corporation.

This course is open to all students, but required for Grade 12 Academy of Finance students.

INFORMATION TECHNOLOGY AND ME

GRADES 9-12—S1/2

This course provides an overview of computers. Students will use programs that are needed for future courses taken in high school and in the world of work. Topics will include: basic computer operations and capabilities, key boarding, how to use Microsoft Office to fit personal and business needs, how to use the Internet/Worldwide Web for personal and business use, computer ethics, and careers. Sections will be offered to meet individual student needs with emphasis on developing a customized program to accommodate the requirements of the student.

This course fulfills the Computer Education requirement. Also listed under Special Education.

INFORMATION TECHNOLOGY

GRADES 9-12—S1/2

This course provides a comprehensive overview of computers and the use of the computer as a problem-solving tool through the use of various computer applications. The student will have the opportunity to develop a variety of computer skills through hands-on experience. Topics will include: basic computer operations and capabilities, telecommunications and networking, the Internet/Worldwide Web, computer ethics, and computer careers. Students will use word processing, spreadsheet, database, presentation, and web design software.

This course fulfills the Computer Education requirement. Prerequisite: Informal Algebra 1 or College Prep Algebra I (or currently enrolled in Informal Algebra I or College Prep Algebra I)

STRUCTURED PROGRAMMING I

GRADES 9-12—S1/2

This course is the foundation course for all other computer programming courses. It introduces students to basic programming concepts and problem solving logic. Students are in the computer lab at all times and work either on an independent or structured basis, depending upon their skills and interests. Lectures and demonstrations are used to introduce new concepts. The languages used are BASIC and KPL. Topics will include: computer systems, data types, control structures, loops, subroutines, library and user defined functions, and graphics.

This course fulfills the Computer Education requirement. Prerequisite: Informal Algebra 1 or College Prep Algebra I (or currently enrolled in Informal Algebra I or College Prep Algebra I)

STRUCTURED PROGRAMMING II

GRADES 9-12—S2

This course is a continuation of Structured Programming I. The programming languages Pascal (Delphi) and KPL, will be used. This course will offer students an in-depth study of a high level language to develop expertise in analyzing and solving a variety of problems. It is recommended for students pursuing careers in engineering, mathematics, science, and computer science. Students will be in the computer lab at all times and working on an independent or structured basis depending upon abilities and interests. Topics include: program structure, control statements, Boolean expressions,

methods, functions, arrays, matrices, structures, and files. A flash drive is recommended for storing programs.

Prerequisite: Structured Programming I

COLLEGE PREP VISUAL BASIC

GRADES 9-12—S2

This course introduces students to the visual programming environment. Visual Basic has been adopted by business and industry because of its ability to easily create Windows applications. Students will be in the computer lab at all times and will learn the language in a structured or independent environment, depending upon their skills and interests. With this language, students gain a skill they can actually use on the job. In addition, some colleges use this language as an introductory course.

This course is a Project Running Start course. Prerequisite: Structured Programming I

HONORS C++ PROGRAMMING

GRADES 10-12—S1/2

This year-long course introduces students to advanced programming concepts and object-oriented programming using the C++ programming language. Students will be in the computer lab at all times writing and debugging a variety of programming assignments. Work is done on either a structured or independent basis, depending upon skills and interests. Topics include: program structure, control structures, Boolean expressions, loops, functions, structures, files, vectors, matrices, classes, linked lists, sorting and searching techniques. During the fourth quarter students will extend their knowledge of C++ to complete programs using the C# language. Flash/Thumb drives are strongly recommended for storing work.

This course is a Project Running Start course. Prerequisite: Structured Programming II or College Prep VB.Net

WEB DEVELOPMENT & DESIGN I

GRADES 9-12—S1

This course introduces the overall production processes surrounding web site development with particular emphasis on design elements involving layout, navigation, and interactivity. Students will learn web design in preparation for jobs in the Internet economy. Hands-on web development exercises will be taught using HTML, Adobe Photoshop for producing web-ready images, and other professional web development software as needed. Students will have the opportunity to create their own web site by the end of the course.

This course fulfills the Computer Education requirement.

WEB DEVELOPMENT & DESIGN II

GRADES 9-12—S2

This course is a continuation from Web Development & Design I. Students entering this program will learn advanced web development and design techniques. Areas of study will include the use of web-authoring software such as Adobe Dreamweaver, graphic layout and design, photographic editing, scanning and digital multimedia production. Emphasis will be placed on the creation of visual content and will explore what constitutes a visually exciting and engaging site. All work will be hands-on and project-based. Students will gain valuable, transferable skills that can be used and integrated into other classes. Class projects involve the use of scanners, digital cameras, and a variety of software.

Prerequisite: Web Design & Development I

YEARBOOK

GRADES 9-12—S1/2

This is a practical hands-on course designed to produce the official *Reflections Yearbook* for Londonderry High School. All phases of yearbook production will be covered in this course including photography and photo editing, theme development, copy writing, page design layout, business and advertising. Students who have experience with business computer applications, journalism, art, photography, marketing, and/or multimedia communications are urged to enroll. A student who assumes a leadership position, such as editor, chief editor, or business manager, must take Yearbook S1 and S2.

Course may be taken more than once for credit.

Prerequisite: Interview with instructor for students interested in staff editorial positions.

ANIMATION FOR THE WEB

GRADES 9-12—S1/2

Adobe Flash is by far the leading Internet technology for creating and viewing multimedia rich content on the web. Over 95% of Internet users have Flash Player installed on their machines. In this project based course, students will learn the principles of vector graphics, drawing, color usage, creation and use of movie clips and buttons, layer skills, animation of text and objects using Actionscript, tweening, and motion guides, animated masks, and Flash movie generation. Flash drives are strongly recommended for storing work.

This course fulfills the Computer Education requirement.

ADVANCED PLACEMENT COMPUTER SCIENCE

GRADES 11-12—S1/2

AP Computer Science uses Java programming language to teach advanced programming concepts such as graphical user interfaces and object oriented programming. Students will be creating complex applications and applets on an independent or structured basis depending upon their skills and interests. The AP exam case study will be examined as part of the second semester curriculum. During the fourth quarter, students will focus on preparing for the AP exam or complete a programming project of their choice. Topics include: program structure, control statements, methods, arrays, linked lists, files, creating and using classes, GUI programming, object oriented programming, sorting and searching techniques, recursion, and applets. A flash/thumb drive is highly recommended for storing work. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

This course is a Project Running Start course.

COLLEGE PREP COMPUTER MAINTENANCE & REPAIR I

GRADES 9-12—S1

This course will familiarize the student with current and past Personal Computer architectures. Processors, RAM, data storage, video, input/output and other components and peripherals will be identified and discussed. Power supplies, cabling, memory, memory requirements, and static discharge will be addressed. Students will be required to install and configure Windows operating systems. Students will learn troubleshooting and maintenance fundamentals in a hands-on environment.

This course is a Project Running Start course.

This course fulfills the Computer Education requirement.

COLLEGE PREP COMPUTER MAINTENANCE & REPAIR II

GRADES 9-12—S2

This is a continuation of the Hardware and Maintenance Repair course. Students will continue to learn about computer hardware and operating systems. They will also research new and emerging technologies and programs. Students will configure, price, build, re-build, troubleshoot and repair computers. They will deal with pricing, vendors, scheduling of maintenance and the accounting needed for computer repair. Coursework is geared for the preparation of students to take the A+ Certification Exam. Students will have the opportunity to mentor under both the Instructor and the IT Department repairing computers throughout the high school.

This course is a Project Running Start course.

Prerequisite: College Prep Computer Maintenance & Repair I

COMPUTER INTERACTIVE

GRADES 10-12—S1/2




This course is designed for students who are interested in sharing their knowledge with students who need one-on-one assistance to succeed. The course will allow the student the opportunity to work with special education students to help them participate in computer activities. This course is an excellent choice for those students considering a career in education or in working with the special needs population.

Prerequisite: Interview with instructor

Computer Technology Pathways Program of Studies 2010-2011

The LHS Business & Computer Technology Department offers multiple technology career pathways, each geared toward a particular sector of the computer industry. All of the courses listed below are a semester long (with the exception of the C++ Programming and AP Computer Science courses which are one year long). To get an overview of all pathways choose the Information Technology course.

FOUNDATION COURSES

-  **Information Technology**
-  **Information Technology and Me**
-  **Computer Interactive**

These courses provide a foundation of computer knowledge & use. IT is recommended for all students and provides an overview of all technology pathways.

WEB & GRAPHICS






For students interested in areas involving Web design & management, graphic arts, multimedia production, and other related areas.

-  **Web Design & Development I**
-  **Web Design & Development II**
-  **Animation for the Web**

These courses provide a breadth of knowledge from the fundamentals of web development (HTML) to advanced topics in Adobe Dreamweaver, Adobe Flash, JavaScript, XML, and Adobe PhotoShop.



PROGRAMMING

For students interested in computer programming, engineering, information technology and other related computer science professions.

-  **Structured Programming I**
-  **Structured Programming II**
-  **College Prep Visual Basic.NET***
-  **Honors C++ Programming***
-  **AP Computer Science (Java)***

The first two courses provide a solid foundation in problem solving and programming logic. Students then expand on their expertise by continuing on to advanced courses, many of the same courses required for computer science majors during their first year at college. The College Prep Visual Basic.NET, C++, and AP Computer Science courses offer Project Running Start credit.






COMPUTER MAINTENANCE AND REPAIR

-  **College Prep Computer Maintenance & Repair I ***
-  **College Prep Computer Maintenance & Repair II ***

In these courses students will, through hands-on activities and labs, learn hardware and software components, assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. These courses prepare students for the CompTIA A+ certification exam.

BUSINESS COMPUTER APPLICATIONS

For students interested in developing skills and analytical strategies necessary for effective use of many of the most widely used applications today.

-  **Word Processing (document formatting/production)**
-  **Business Computer Applications**
-  **Microsoft Office Specialist Certification (Word, Excel, PowerPoint or Access)**
-  **Desktop Publishing**
-  **Yearbook**

This track stresses proficiency in word processing, spreadsheets, databases, presentation applications, and desktop publishing. Recommended for students looking to become accomplished with computer software for college use, as well as students looking to develop skills for entry into the office workforce.

**Project Running Start courses*

ENGLISH

Course Name	Semester	Grades	Prerequisite
Literature and Composition 9	S1/S2	9	
World Studies	S1/S2	9	Administrative Placement Only Must also register for Social Studies counterpart
College Prep English 9	S1/S2	9	
College Prep Freshman Humanities	S1/S2	9	Recommendation of current instructor Must also register for Social Studies counterpart
Honors English 9	S1/S2	9	A- or higher in previous course and recommendation of current instructor
Literature and Composition 10	S1/S2	10	
College Prep English 10	S1/S2	10	
College Prep Sophomore Humanities	S1/S2	10	Recommendation of current instructor Must also register for Social Studies counterpart
Honors English 10	S1/S2	10	Honors English 9 or B+ or higher in previous course and recommendation of current instructor
American Experience I & II	S1/S2	11	
College Prep English 11	S1/S2	11	
Honors English 11	S1/S2	11	Honors English 10 or B+ or higher in previous course and recommendation of current instructor
College Prep Women in Literature	S1	11-12	
College Prep Contemporary Literature	S2	11-12	
Dramatic Literature	S2	11-12	
College Prep Journalism I	S1/S2	10-12	Conference with instructor
Sports Journalism	S1/S2	11-12	
College Prep World Literature	S1/S2	11-12	
Public Speaking	S1/S2	11-12	
Science Fiction Experience	S1/S2	12	
Mass Media	S1/S2	12	
Writing Experience: Classic Film	S1/S2	12	
College Prep Journalism II	S1/S2	12	College Prep Journalism I
College Prep Science Fiction and Fantasy	S1/S2	12	
College Prep Writing Workshop	S1/S2	12	
Honors Writing Workshop	S1/S2	12	Entry Portfolio and recommendation of current instructor
AP English Literature & Composition	S1/ S2	12	Recommendation of current instructor
AP English Language	S1/S2	11-12	Recommendation of current instructor

HONORS LEVEL

Honors English 9	Honors English 10	Honors English 11	<p>Electives: Seniors must complete a minimum of two semesters of English. All electives are one semester in length unless otherwise noted in course description.</p> <p style="text-align: center;">AP English Language AP English Literature Honors Writing Workshop</p>
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COLLEGE PREP LEVEL

Freshman Humanities	College Prep English 10 or Sophomore Humanities	College Prep English 11	<p>Electives: Seniors must complete a minimum of two semesters of English. All electives are one semester in length unless otherwise noted in course description.</p> <p>#College Prep Women in Literature College Prep Writing Workshop #College Prep World Literature #College Prep Journalism I (year) #College Prep Contemporary Literature College Prep Journalism II (year) College Prep Science Fiction & Fantasy</p>
College Prep English 9			

PRACTICAL LEVEL

Literature and Composition 9	Literature and Composition 10	American Experience	<p>Electives: Seniors must complete a minimum of two semesters of English. All electives are one semester in length unless otherwise noted in course description.</p> <p>#Dramatic Literature Writing Experience: Classic Film Mass Media #Public Speaking Science Fiction Experience #Literature Interactive #Sports Journalism</p>
World Studies			

#Elective offerings open to Juniors

LITERATURE AND COMPOSITION 9

GRADE 9—S1/2

This course is designed for students who need further support building reading and writing skills. Reading selections include classical as well as young adult literature with a focus on literacy strategies. Student writing will include creative and expository responses. Community service and book clubs may also be used as strategies for extending the learning beyond the classroom.

WORLD STUDIES

GRADE 9—S1/2

This is a humanities based course that fulfills the Freshman English and Social Studies requirements. Students will examine important movements, ideas, and events in world history through various forms of literature and other resources. Students will also receive study skills instruction with a focus on reading skills, vocabulary and comprehension. Strategies in note taking, test taking and textbook usage will also be provided. The course may include a variety of instructional approaches such as class discussions, projects, media center research, field trips and guest speakers.

Note: Double Period

Must also register for Social Studies counterpart

Prerequisite: Administrative Placement Only

COLLEGE PREP ENGLISH 9 GRADE 9—S1/2

This course is designed to provide an overview of the short story, novel, poetry, and the essay, as well as writing instruction. Basic literary terms and the writing of expository essays on literature are emphasized. Vocabulary development and basic English skills are also stressed.

COLLEGE PREP FRESHMAN HUMANITIES

GRADE 9—S1/2

This course, which fulfills the Freshman English and Social Studies requirements, is designed to provide a comprehensive historical and literary survey of the development of civilization through World War II. Through various forms of literature and resources, students will examine important movements, ideas, and events in world history. The course will include a rigorous reading requirement as well as provide intensive writing instruction, class discussions, projects and media center research.

Required summer reading will be assigned.

Note: Double Period

Must also register for the Social Studies counterpart

Prerequisite: Recommendation of current instructor

HONORS ENGLISH 9 GRADE 9—S1/2

This course is designed for students who have demonstrated an excellent understanding of language and literature. Emphasis will be placed upon the appreciation and understanding of genres and upon literature as an art form reflecting human experience. Stress will be on an in-depth understanding of our language and the mastery of English usage. Writing and speaking skills are utilized in helping students become better communicators.

Required summer reading will be assigned.

Prerequisite: A- or higher in previous course and recommendation of current instructor

LITERATURE AND COMPOSITION 10

GRADE 10—S1/2

This course is designed for students who need extra focus on reading comprehension and writing skills. Using a mixture of classic and teen centered readings, various reading strategies are taught to aid understanding literature. These techniques can be used well beyond the classroom. Writing skills are honed using professional student generated examples to construct creative and expository composition.

COLLEGE PREP ENGLISH 10 GRADE 10—S1/2

This course is designed for students who wish to enhance the communication skills of reading, writing, listening, and speaking. Students will strengthen their awareness of literature through the reading of short stories, plays, and novels and develop their writing skills through various assignments. Stress will be on an in-depth understanding of our language and the mastery of English usage.

COLLEGE PREP SOPHOMORE HUMANITIES

GRADE 10—S1/2

This course, which fulfills the sophomore English and Social Studies requirements, will provide a comprehensive historical and literary review of American History beginning with the colonization of the continent and ending with an overview of the 1980's. Through various forms of literature and resources, students will examine important movements, ideas, and events in American History. The course will include a rigorous reading requirement as well as provide intensive writing instruction, class discussions, projects and media center research.

Required summer reading will be assigned.

Note: Double Period

Must also register for the Social Studies counterpart

Prerequisite: Recommendation of current instructor

HONORS ENGLISH 10 GRADE 10—S1/2

This is an advanced level course designed for students who have demonstrated a proficiency in English and who wish to further strengthen their communications skills. Stress will be on an in-depth understanding of our language and the mastery of English usage. This course develops an understanding of the literary genres through interpretation, skillful analysis and discussion. Students will develop their writing skills through various assignments, including an in-depth research paper.

Required summer reading will be assigned.

Prerequisite: Honors English 9 or B+ or higher in previous course and recommendation of current instructor

AMERICAN EXPERIENCE I & II GRADE 11—S1/2

This course is a tech-integrated junior English course. In this course, we will continue to develop our reading comprehension skills as we encounter works from each of the following periods and movements in American Literature: Colonialism, Neoclassicism, Romanticism, Realism, Naturalism, Modernism, Harlem Renaissance, and Contemporary. Our skills in writing will continue to be developed through the writing of a variety of expository and creative papers with a special focus on the research process and the thesis-based research paper. Critical analysis of film, student presentations, and academic discourse activities will provide us with opportunities to further develop literacy in a variety of media beyond print. Individual needs and interests will receive special attention.

COLLEGE PREP ENGLISH 11 GRADE 11—S1/2

This course is a tech-integrated college preparatory English course designed to provide students with the opportunity to gain the skills necessary for success in college. In this course, we will further develop our critical thinking skills as we read and respond to selected literary works from each of the following periods and movements in American Literature: Colonialism, Neoclassicism, Romanticism, Realism, Naturalism, Modernism, Harlem Renaissance, and Contemporary. We will also continue to develop and expand upon our writing skills through the writing of a variety of expository and creative papers with a special focus on the research process and the thesis-based research paper. Critical analysis of film, student presentations, and academic discourse activities will provide us with opportunities to further develop literacy in a variety of media beyond print. As with most college preparatory courses, this course involves a consistent homework load of long-term and short-term assignments.

HONORS ENGLISH 11 GRADE 11—S1/2

This course is a tech-integrated honors English course designed to provide college-bound students with the opportunity to critically analyze and interpret selected literary works from each of the following periods and movements in American Literature: Colonialism, Neoclassicism, Romanticism, Realism, Naturalism, Modernism, Harlem Renaissance, and Contemporary. Our approach to the literature for this course offers students a challenge in terms of reading pace and/or depth of analysis. We will hone and expand upon our writing skills through a variety of expository and creative papers with a special focus on the research process and the thesis-based research paper. Critical analysis of film, student presentations, and academic discourse activities will provide us with opportunities to further develop literacy in a variety of media beyond print. As with most honors courses, this course involves a consistent homework load of long-term and short-term assignments as well as summer reading.

Required summer reading will be assigned.

Prerequisite: Honors English 10 or B+ or higher in previous course and recommendation of current instructor

COLLEGE PREP WOMEN IN LITERATURE**GRADES 11-12—S1**

This course will examine the various roles played by female characters in literature. Students will be expected to write papers, read various works by and about women and make class presentations.

COLLEGE PREP CONTEMPORARY LITERATURE**GRADES 11-12—S2**

This course uses contemporary literature to focus on timeless conflicts and issues that we face today. Daily reading assignments help students to hone their critical and analytical skills. Verbal and written expressions receive emphasis, as does vocabulary development. Material is selected to enhance student appreciation of the modern human condition through literature.

DRAMATIC LITERATURE GRADES 11-12—S2

This course will concentrate on the reading, discussion, and analysis of dramatic works from ancient times to the present,

including comedies, social dramas, and satires. Oral readings and written assignments are required.

COLLEGE PREP JOURNALISM I**GRADES 10-12—S1/2**

Students in this course are reporters for *The Lancer Spirit*, the school newspaper, and will be required to meet all deadlines of the print schedule. This course is an in-depth study of the mechanics, functions and purpose of newspapers. Critical and analytical thinking will be refined and advanced through the practice of researching, interviewing and reporting. Students will learn how to write a variety of articles including news, features, sports, reviews and editorials by incorporating the quotations, facts and information they've acquired throughout the news-writing process. Students will be required to discuss and answer ethical questions essential to appreciating the significance of journalism in society as well as the importance of First Amendment rights. In this course, students will be expected to write and revise articles for submission and be prepared to finance print production through the sale of advertising.

SPORTS JOURNALISM GRADES 11-12—S1/2

This course is designed to expose students to different genres of sports writing, novels, film, feature stories, and daily reporting. Students will review sports writing published online and in newspapers and magazines to analyze and discuss how these journalists write.

COLLEGE PREP WORLD LITERATURE**GRADES 11-12—S1/2**

This course is designed for those students who wish to broaden their reading experiences by exposure to some of the world's eminent authors. Selections will be made from European, Greek, African, Latin American, Icelandic, and East Asian authors. Major literary themes will be emphasized.

PUBLIC SPEAKING GRADES 11-12—S1/2

This course gives students an opportunity to develop and stretch their abilities in a wide range of spoken applications by emphasizing the incorporation of both writing and speaking skills. Students will research, prepare, write and deliver specific types of speeches. When possible, technological integration of these skills will be used, including the video and audio taping of the student's work.

SCIENCE FICTION EXPERIENCE**GRADE 12—S1/2**

This course is designed to stimulate the imagination through reading, writing, and investigation of science fiction literature and science fiction phenomena. Reading comprehension and writing skills will continue to be developed.

MASS MEDIA GRADE 12—S1/2

This course is designed to help students comprehend various types of mass media and how they help shape our thinking. Students will study various persuasive media, such as the newspaper, magazine, radio, television, film and video. Oral and written assignments are required, as well as a lengthy, in-depth project as a culminating activity.

WRITING EXPERIENCE: CLASSIC FILM

GRADE 12—S1/2

This writing course links by units to film genre. Students will develop a number of essays and creative pieces drawn from a film classic that has been viewed in class. Silent, western, innovative, and mainstream classic Hollywood films such as Citizen Kane, Guess Who's Coming to Dinner, Stagecoach and The Gold Rush will provide the impetus for the written work. The writing process will be emphasized.

COLLEGE PREP JOURNALISM II GRADE 12

Students in this course are responsible for producing *The Lancer Spirit* as editors on the newspaper staff. Designed to function as a workshop enhancing students' writing and leadership skills, this course will provide students with the opportunity to focus their learning. This course will emphasize critical and analytical thinking through management, organization and production of the school newspaper. In addition to writing their own stories, students will learn to critique, revise and edit the stories of reporters and other editors. They will also design pages with stories, graphics and photographs using programs like InDesign® and Photoshop®. Students are also required to finance print production through the sale of advertising.

Prerequisite: College Prep Journalism I and successful completion of application process with adviser approval.

COLLEGE PREP SCIENCE FICTION AND FANTASY

GRADE 12—S1/2

This course introduces the science fiction genre through short stories, novels, and film study. The course will also examine scientific phenomena and events with a focus on the question of "What if?" The many aspects of fantasy (medieval, dark, heroic) are analyzed through examination of short stories, novels, and film.

COLLEGE PREP WRITING WORKSHOP

GRADE 12—S1/2

This course is designed for those students who desire to express their ideas and feelings creatively through disciplined writing. Emphasis is placed on developing previously learned skills through weekly writing assignments in the genres of short story, poetry, and essay writing. Students will improve their writing skills through peer conferencing, peer editing, class workshopping, and teacher evaluation. In addition to the weekly writing assignments, students will compile a portfolio of writing that demonstrates the range and proficiency in their writing. Participation with Impressions, the Literary Magazine, is encouraged.

HONORS WRITING WORKSHOP

GRADE 12—S1/2

This course is designed for those students who have already demonstrated a proficiency in writing and who wish to extend that proficiency through writing personal essays, extended pieces of fiction, poetry and advanced expository styles of writing. Students should expect weekly writing assignments and will improve their writing skills through peer conferencing, peer editing, class workshopping, and self-evaluation. In addition to the weekly writing assignments and required readings, students will compile a portfolio of writing that demonstrates the range and proficiency of their writing. Participation with Impressions, the Literary Magazine, may be required.

Required summer reading will be assigned.

Prerequisite: An entry portfolio and recommendation of current instructor

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION

GRADE 12—S1/2

This course, designed for students capable of doing college level work in English, will provide an intensive introduction to the study of British and other world literatures. Students will learn to evaluate pieces of writing by analyzing background, structure, technique and theme and will learn to develop and write substantive critical analyses. The class will serve as an introduction to some current college-level literary theory as well. Students are required to complete summer reading. This course is comparable to a freshman course in college. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

Required summer reading will be assigned.

Prerequisite: Recommendation of current instructor

ADVANCED PLACEMENT ENGLISH LANGUAGE

GRADES 11-12—S1/2

This course, designed for students capable of doing college level work in English, will engage students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. This course emphasizes the expository, analytical, and argumentative writing that forms the basis of academic and professional communication, as well as the personal and reflective writing that foster the development of writing facility in any context. This composition course teaches student to read primary and secondary sources carefully, to synthesize material from these texts in their own compositions, and to cite sources using conventions recommended by professional organizations. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

Required summer reading will be assigned.

Prerequisite: Recommendation of current instructor

FAMILY AND CONSUMER SCIENCES

Course Name	Semester	Grades	Prerequisite
Introduction to Foods	S1/S2	9-12	
Foods II	S1/S2	9-12	Introduction to Foods
Foods Interactive	S2	11-12	Introduction to Foods and interview with instructor
Design in Clothing	S1/S2	9-12	
Clothing Construction	S1/S2	9-12	Design in Clothing
Human Relationships	S1	10-12	
Parenting and Children	S2	10-12	
Independent Living and Money Management	S1/S2	10-12	
Housing and Design	S1	9-12	

INTRODUCTION TO FOODS

GRADES 9-12—S1/2

This introductory course for all students will concentrate on the principles of nutrition, basic food preparation and handling, and meal planning. Various techniques will be used to cover these topics, including group discussions, lectures, audiovisual materials, demonstrations, taste tests, guest speakers, and laboratory experience.

FOODS II

GRADES 9-12—S1/2

This course is designed for those students interested in the more in-depth study of food preparation and how food affects our daily life. Units covered will include: (1) advanced food preparation, (2) elementary baking, (3) regional and international foods, and (4) nutrition for good health, including our food habits, meeting special food needs, and consumer skills necessary to evaluate food claims. These topics will be covered through group discussions, teacher demonstrations, lectures, guest speakers, student projects, and laboratory experience.

Prerequisite: Introduction to Foods

FOODS INTERACTIVE

GRADES 11-12—S2

This course is designed to allow students with good food preparation skills the opportunity to share their knowledge with students who need one-on-one assistance to succeed in the foods lab. The course will allow the student instructors the opportunity to work with special education students to help them select and prepare nutritious meals and snacks. Special education students will have the opportunity to work in a truly inclusive environment. In addition to working with their peers, the student instructors may be responsible for leading the class in one project of personal choice. This course is an excellent choice for those students considering a career in education or working with the special needs population.

Prerequisite: Introduction to Foods and interview with instructor

DESIGN IN CLOTHING

GRADES 9-12—S1/2

This course is designed to help students understand the role clothing plays in their lives, as well as investigate fashion history and design. In addition, we will focus on making informed decisions regarding the selection and care of clothing. A large amount of class time will focus on basic sewing skills and construction techniques with emphasis on clothing, quilting, and craft construction. Sewing projects are selected according to student interest and ability level. Students are responsible for providing material of their choice for sewing projects.

CLOTHING CONSTRUCTION

GRADES 9-12—S1/2

This course will further develop skills learned in Design in Clothing as students select appropriate fabrics and patterns and construct quality garments, quilts, and craft projects. In addition, students will learn about fiber identification and fabric construction as well as the appropriate use and care of each. Emphasis in this course is on independent study with teacher guidance. Students are responsible for providing material for their choice of personal clothing or craft construction projects.

Prerequisite: Design in Clothing

HUMAN RELATIONSHIPS

GRADES 10-12—S1

This course is designed to help students understand themselves and others in an effort to create healthy relationships. Students will learn about their own personalities and how they developed. They will learn effective communication and decision-making skills. Other topics covered include friendships, dating, love, marriage, and dealing with stress. These topics will be introduced through group discussions, lectures, independent study, projects, and guest speakers. Students will have the opportunity to plan a wedding as a major project.

PARENTING AND CHILDREN

GRADES 10-12—S2

This course is designed to help students develop an understanding of the important responsibilities, rewards and challenges of parenthood and childcare. Topics will include prenatal care and development, pregnancy and childbirth, as well as emotional, social, physical and intellectual development of children from birth to age six. Emphasis will also be given to the following areas: special concerns of teen parenting, age appropriate learning activities for children, and healthcare and safety for children. These topics will be introduced through group discussions, lecture, guest speakers, and field trips. Students will either participate in an infant simulation activity or complete an alternative project selected by the student with teacher approval. We complete the year with our highly anticipated “Fun Fest” activity for preschoolers.

INDEPENDENT LIVING AND MONEY MANAGEMENT

GRADES 10-12—S1/2

This course is designed to help prepare students to live and function independently in today’s society. Modern aspects of practical living will include consumerism, decision-making, money management, buying and financing a car, obtaining insurance, renting an apartment. Various techniques will be used to cover these topics, including group discussions, lectures, independent study, projects, and guest speakers.

HOUSING AND DESIGN

GRADES 9-12—S1

This course is designed to explore many of the aspects of housing. Students will study the history and influences on housing in the United States. They will learn how to make housing selections as well as learn about acquiring and financing a home. They will study the evolution of housing exteriors and housing plans. During the unit on interior design, students will learn about the elements and principles of design, color, textiles, furniture, windows, lighting, and accessories. This is a tech rich course with projects and research done online. The students will complete a semester long project on many of the units listed above.

FOREIGN LANGUAGE

Course Name	Semester	Grades	Prerequisite
College Prep French I	S1/S2	9-12	
College Prep French II	S1/S2	9-12	College Prep French I or recommendation from 8 th grade French teacher
College Prep French III	S1/S2	10-12	College Prep French II
College Prep French IV Grammar and Conversation	S1/S2	11-12	College Prep French III
Honors French IV	S1/S2	11-12	College Prep French III and recommendation of current instructor
AP French Language	S1/S2	12	Honors French IV and recommendation of current instructor
College Prep German I	S1/S2	9-12	
College Prep German II	S1/S2	10-12	College Prep German I
Honors German Conversation and Culture	S1/S2	11-12	College Prep German II
Honors German Composition and Literature	S1/S2	11-12	College Prep German II
College Prep Latin I	S1/S2	9-12	
College Prep Latin II	S1/S2	10-12	College Prep Latin I
Honors Latin Prose	S1/S2	11-12	College Prep Latin II
Honors Latin Poetry	S1/S2	11-12	College Prep Latin II
College Prep Spanish I	S1/S2	9-12	
College Prep Spanish IIA	S1/S2	9-12	Grade of 83% or above in College Prep Spanish I or recommendation from 8 th grade Spanish teacher
College Prep Spanish IIB	S1/S2	9-12	College Prep Spanish I or Spanish 7 & 8 at LMS
College Prep Spanish IIIA	S1/S2	10-12	Grade of 83% or above in College Prep Spanish IIA or 90% or above in College Prep Spanish IIB
College Prep Spanish IIIB			College Prep Spanish IIA or IIB
College Prep Spanish IV Grammar and Conversation	S1/S2	11-12	College Prep Spanish IIIA
Honors Spanish IV	S1/S2	11-12	College Prep Spanish IIIA or College Prep Spanish IV Grammar and Conversation and recommendation of current instructor
AP Spanish Language	S1/S2	12	Honors Spanish IV and recommendation of current instructor

FRENCH SEQUENCE OF COURSES

College Prep French I	College Prep French II	College Prep French III	Honors French IV	AP French Language
French 7 & 8 at LMS			College Prep French IV Grammar and Conversation	Honors French IV

SPANISH SEQUENCE OF COURSES

College Prep Spanish I	College Prep Spanish IIA Or College Prep Spanish IIB	College Prep Spanish IIIA Or College Prep Spanish IIIB	Honors Spanish IV	AP Spanish Language
Spanish 7 & 8 at LMS			College Prep Spanish IV Grammar and Conversation	Honors Spanish IV

COLLEGE PREP FRENCH I GRADES 9-12—S1/2

This is an introductory course that teaches basic vocabulary, good pronunciation and elementary grammatical structures. The use of varied audio-lingual and audiovisual teaching techniques stresses all four language skills: listening comprehension, speaking, reading and writing. Intensive aural-oral practice is offered through a variety of media materials. The student is exposed to Francophone lifestyles and culture through the reading selections, songs, cooking and multi-media.

COLLEGE PREP FRENCH II GRADES 9-12—S1/2

Students expand their vocabulary, develop speaking fluency and refine their pronunciation in this continuing course. More grammatical concepts are introduced and the reading selections are more extensive. Structured composition is also included. An appreciation of Francophone cultures is a prime goal. A variety of activities and audiovisual materials are used.

Prerequisite: College Prep French I or recommendation from 8th grade French teacher

COLLEGE PREP FRENCH III GRADES 10-12 — S1/2

Conducted predominately in French, this course provides advanced grammatical concepts as well as an introduction to French literature and contemporary writings from several French-speaking countries. Poetry, short stories and film will be studied, along with a variety of cultural readings, with all activities designed to span all four language skills while developing a realistic up-to-date awareness of French culture.

Prerequisite: College Prep French II

COLLEGE PREP FRENCH IV GRAMMAR AND CONVERSATION GRADES 11-12—S1/2

This course, conducted in French, is offered for those students who wish to continue their studies in the French language, but do not intend to take the AP French course. The class will focus on intensive grammar review, continued development of listening and speaking skills and contemporary readings. Students may choose to continue to French Literature and Composition the following year.

Prerequisite: College Prep French III

HONORS FRENCH IV GRADES 11-12 — S1/2

Conducted in French, this course is designed to further the development of the advanced student's language skills. Deeper understanding and appreciation of the French culture is fostered through the study of history, literature and the arts from their origins to the Revolution. Readings will also be drawn from the works of contemporary writers and thinkers throughout the French-speaking world. A variety of literary styles and forms are included: poetry, short stories, plays, novels and film. Students must take this course if they intend to take AP French the following year. A grade of B or above in College Prep French III is expected.

Prerequisite: College Prep French III and recommendation of current instructor

ADVANCED PLACEMENT FRENCH LANGUAGE GRADE 12—S1/2

This course, conducted entirely in French, is designed to prepare students for the AP French Language exam. It is for students who wish to develop their proficiency in all four language skills: listening, speaking, reading and writing. The course is intended to help students comprehend formal and informal spoken French, acquire vocabulary, grasp structures to allow the easy and accurate reading of various sources, compose expository passages and express ideas orally with accuracy and fluency. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

Required summer project will be assigned.

Prerequisite: Honors French IV and recommendation of current instructor

COLLEGE PREP GERMAN I GRADES 9-12—S1/2

This course is designed to introduce the student to the sound system and pronunciation of the German language, to build vocabulary, and to teach the fundamental grammatical concepts. The four basic communications skills – listening comprehension, speaking, reading and writing – are taught through various aural-oral and audiovisual techniques. Students are expected to converse in German on limited topics. Intensive aural-oral practice is afforded through a variety of media materials. The German civilization is presented in a basic introduction to geography, history and

contemporary lifestyle. Music, films, and projects are used to enhance the development of the four language skills.

COLLEGE PREP GERMAN II GRADES 10-12—S1/2

The four language skills are expanded and practiced in this continuing course, with German becoming the dominant classroom language. Vocabulary acquisition continues, more detailed grammatical structures are presented and reading and writing are given more emphasis at this level. Cultural and historical presentations from both reading selections and audiovisual materials foster an understanding of the German people. Focus on German as a communication tool continues.

Prerequisite: College Prep German I

HONORS GERMAN CONVERSATION AND CULTURE GRADES 11-12 — S1/2

Conducted in German, this course provides intensive conversational practice and aims at refining the student's fluency, both oral and written. Students will continue to expand their vocabulary. The course includes cultural and literary readings. Contemporary media is used to supplement the text and can act as a basis for conversation and individual and group projects. Development of speaking, listening, reading and writing skills continues.

Course is offered in even years

Prerequisite: College Prep German II

HONORS GERMAN COMPOSITION AND LITERATURE GRADES 11-12 — S1/2

Conducted in German, this course is designed to carry on the development of the advanced student in the four language skills, while deepening their insights in Germanic culture through the works of German writers, including, but not limited to, Kafka and Dürrenmatt. Additionally, students will participate in film analysis. A comprehensive grammar review will be provided. Development of communication skills continues.

Course is offered in odd years

Prerequisite: College Prep German II

COLLEGE PREP LATIN I GRADES 9-12 — S1/2

This introduction to an ancient language covers the declensions, conjugations, principle parts of verbs and the five cases of nouns and adjectives. These concepts are studied via translation of short pieces depicting life in ancient Rome and mythological characters. The student will learn vocabulary which contains roots in common with modern English and modern foreign languages. While the course encourages good pronunciation, the primary purpose is to read Latin. Class projects, films and occasional field trips foster an appreciation of our Latin heritage.

COLLEGE PREP LATIN II GRADES 10-12 — S1/2

This course reviews and expands upon the material learned in College Prep Latin I. Vocabulary acquisition continues and the subjunctive mood and its use in clauses of purpose and result are presented. The readings/translations are more difficult than in the first year and are a combination of those written for the high school student and some works by Latin authors such as Julius Caesar. There is more research into the history of Rome and its most famous citizens.

Prerequisite: College Prep Latin I

HONORS LATIN PROSE GRADES 11-12—S1/2

This course is primarily devoted to the study of Latin prose through the writings of Cicero. Historians constitute the greater part of the year's work. Selections from Sallust and the poetry of Ovid are also read. Time is spent in the review of syntax and the addition of new forms and principles of grammar. This historical and cultural emphasis is directed toward the political and social conditions of Rome during Cicero's life. **Course is offered in even years**

Prerequisite: College Prep Latin II

HONORS LATIN POETRY GRADES 11-12—S1/2

This course is devoted to Latin poetry. Vergil's immortal epic, "The Aeneid," provides a unique opportunity to study the golden age of classical literature during the Pax Romana of Augustus. Time is spent in the review of grammar and syntax. Poetic meter and figures of speech are introduced. Mythology is studied as an integral part of Latin poetry.

Course is offered in odd years

Prerequisite: College Prep Latin II

COLLEGE PREP SPANISH I GRADES 9-12—S1/2

This course is designed to introduce the student to the Spanish language and culture. Basic vocabulary and basic grammatical concepts and pronunciation skills are learned through a variety of audio-lingual activities. These may include listening/speaking exercises, mini student dialogues and skits. Music, puzzles, videos and projects enhance the development of the four basic language skills: listening, speaking, reading and writing.

COLLEGE PREP SPANISH IIA GRADES 9-12—S1/2

This course, conducted to a great extent in Spanish and at an accelerated pace, continues the development of the four basic skills acquired in College Prep Spanish I. It introduces more vocabulary and grammatical concepts along with readings and composition work. There is an emphasis on cultural awareness as it pertains to an understanding of the Hispanic people in the United States and around the world. Spanish is used a great deal in class and students are made aware of how Spanish will help them in their future careers.

Prerequisite: Grade of 83% or above in College Prep Spanish I or recommendation from 8th grade Spanish teacher

COLLEGE PREP SPANISH IIB GRADES 9-12—S1/2

Similar to College Prep Spanish IIA, this course continues the development of the four basic skills acquired in Spanish I. This course is designed to provide the student with additional reinforcement of Spanish conversation and grammatical skills prior to taking College Prep Spanish III. College Prep Spanish IIB introduces vocabulary and grammatical concepts along with readings and composition work. There is an emphasis on cultural awareness as it pertains to an understanding of the Hispanic people in the United States and around the world. Spanish is used a great deal in class and students are made aware of how Spanish will help them in their future careers.

Prerequisite: College Prep Spanish I or Spanish 7 & 8 at LMS

COLLEGE PREP SPANISH IIIA

GRADES 10-12—S1/2

This course, conducted almost entirely in Spanish, provides a comprehensive review of grammatical concepts and further develops the student's facility in basic language skills. Extensive cultural and historical reading selections and

computer software and Internet searches, as well as some contemporary literary material and the study of famous Latin American artists are offered. Audiovisual material, newspapers and magazines supplement the main text and are a basis for conversations and reports.

Prerequisite: Grade of 83% or above in College Prep Spanish IIA or 90% or above in College Prep Spanish IIB

COLLEGE PREP SPANISH IIIB

GRADES 10-12—S1/2

Similar to College Prep Spanish IIIA, this course provides a comprehensive review of grammatical concepts and further develops the student's facility in basic language skills. This course is designed to provide the student with additional reinforcement of Spanish conversation and grammatical skills. Extensive cultural and historical reading selections and computer software and Internet searches, as well as some contemporary literary material and the study of famous Latin American artists are offered. Audiovisual material, newspapers and magazines supplement the main text and are a basis for conversations and reports.

Prerequisite: College Prep Spanish IIA or IIB

COLLEGE PREP SPANISH IV GRAMMAR AND CONVERSATION GRADES 11-12—S1/2

This course, conducted entirely in Spanish, is offered for those students who wish to continue their studies of the Spanish language and Hispanic culture, but do not intend to take the AP Spanish course. The class will focus on an intensive review of grammar, continued development of listening and speaking skills and culturally relevant readings. Upon successful completion of this course, students may choose to continue to Honors Spanish IV the following year.

Prerequisite: College Prep Spanish IIIA

HONORS SPANISH IV GRADES 11-12—S1/2

This course, conducted entirely in Spanish, uses a fluency-based approach designed to sharpen the student's language skills: listening, speaking, reading and writing. Students will use the grammar they have mastered as well as acquire some of the more refined rules of the language. A variety of literary styles and forms are included: poetry, short stories, plays, novels and film. A grade of B or above in College Prep Spanish III is expected.

Prerequisite: College Prep Spanish IIIA or College Prep Spanish IV Grammar and Conversation and recommendation of current instructor

ADVANCED PLACEMENT SPANISH LANGUAGE

GRADE 12—S1/2

This course, conducted entirely in Spanish, is designed to prepare students for the AP Spanish Language exam. It is for students who wish to develop their proficiency in all four language skills: listening, speaking, reading and writing. The course is intended to help students comprehend formal and informal spoken Spanish, acquire vocabulary and a grasp of structure to allow the easy and accurate reading of various sources, compose expository passages, and express ideas orally with accuracy and fluency. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May. Required summer project will be assigned over the summer.**

Prerequisite: Honors Spanish IV and recommendation of current instructor

HEALTH

Course Name	Semester	Grades	Prerequisite
Health	S1/S2	9	
Wellness	S1/S2	9	Fulfills Health and PE I
Contemporary Issues in Health	S2	10-12	Health or Wellness
Athletic Training I/Sports Medicine	S1	10-12	Health or Wellness
Athletic Training II/Sport and Exercise Science	S2	10-12	Athletic Training/Sports Medicine I

HEALTH

GRADE 9—S1/2

This course is required of all freshmen in addition to the physical education requirements. The course will cover units in nutrition, human growth and development, mental health, conflict resolution, physical fitness, suicide, substance abuse, sexually transmitted diseases, and coping with stress. Classes will involve lectures, discussions, and will be supplemented with films and guest speakers.

WELLNESS

GRADE 9—S1/S2

Wellness is a one year course combining health and fitness components designed to help students acquire the knowledge, practical skills, and habits needed to enhance personal health and wellness. Students will be given the opportunity to better understand the relationship between exercise, activity, nutrition, and healthy living by developing their own lifelong fitness program. **Students will be required to change clothing for the PE activities.** The course will fulfill the .5 Health credit and the .5 PE I credit required for graduation.

CONTEMPORARY ISSUES IN HEALTH

GRADES 10-12—S2

This course is designed to allow students to investigate a variety of health issues related to lifestyle choices and behaviors. Using class discussions and independent research students will examine several aspects of current health topics and trends and have an opportunity to develop and defend their own individual philosophies on these topics.

Prerequisite: Health or Wellness

ATHLETIC TRAINING I/SPORTS MEDICINE

GRADES 10-12—S1

This course is designed for the student who is interested in athletic training, physical therapy, or in simply improving his or her own performance in life and on the playing field. The topics to be explored are the responsibilities of an Athletic Trainer, basic anatomy and physiology, first aid and CPR, emergency procedures, tissue response to healing, protective sports equipment, training and conditioning principles, and nutritional considerations. The material will be presented in the form of lectures, practical hands-on experience, guest speakers, integration of technology, and field trips. This course will include a practicum where students will be asked to work with an athletic team/trainer outside of school hours.

Prerequisite: Health or Wellness

ATHLETIC TRAINING II/SPORT AND EXERCISE SCIENCE

GRADES 10-12—S2

This course is designed to provide opportunities for students to gain valuable information on sport science related topics while continuing their Athletic Training studies. Biomechanics, Exercise Physiology, Exercise Nutrition, Skill Acquisition, and Sport Psychology topics will be incorporated into various sport units allowing students to apply learned theoretical skills into practical scenarios. In addition, students will study specific regions of the body and take an in-depth look at injuries to the foot, ankle, knee, hip, shoulder, spine, and head/face. Students are required to participate in classroom and physical activities, and complete a practicum where they will be asked to observe and possibly assist a certified team trainer. The material will be presented in the form of lectures, guest speakers, practical demonstrations and field trips.

Prerequisite: Athletic Training I/Sports Medicine

MATHEMATICS

Please Note: Students electing to take Algebra II courses and beyond will need a graphing calculator and will be at a disadvantage without one. Students who wish to purchase their own graphing calculator are encouraged to purchase a Texas Instrument 84 plus (TI84+) model.

Course Name	Semester	Grades	Prerequisite
Integrated Math I	S1/S2	9-12	
Integrated Math II	S1/S2	10-12	Integrated Math I
Integrated Math III	S1/S2	11-12	Integrated Math II
Integrated Math IV	S1/S2	11-12	Integrated Math III
Applied Consumer Math	S1/S2	11-12	
Pre-Algebra	S1/S2	9-12	
Informal Algebra I	S1/S2	9-12	Pre-Algebra or recommendation from 8 th grade teacher
College Prep Algebra I	S1/S2	9-12	Pre-Algebra or recommendation from 8 th grade teacher
Informal Geometry	S1/S2	10-12	Informal Algebra I or College Prep Algebra I
College Prep Geometry	S1/S2	9-12	Informal Algebra I or College Prep Algebra I
Honors Geometry	S1/S2	9-10	Algebra I in 8 th grade
Informal Algebra II	S1/S2	11-12	Informal Algebra I or College Prep Algebra I & Informal Geometry or College Prep Geometry
College Prep Algebra II	S1/S2	10-12	Informal Algebra I or College Prep Algebra I & College Prep Geometry
Honors Algebra II/Trig	S1/S2	10-11	Honors Geometry
Informal Trigonometry	S1/S2	12	Informal Algebra II or College Prep Algebra II
College Prep Pre-Calculus	S1/S2	11-12	College Prep Algebra II or Honors Algebra II/Trig
Honors Pre-Calculus	S1/S2	11-12	Honors Algebra II/ Trig
College Prep Calculus	S1/S2	11-12	College Prep Pre-Calculus or Honors Pre-Calculus
College Prep Finite Mathematics Topics	S1/S2	12	College Prep Algebra II
College Prep Probability and Statistics	S1/S2	11-12	College Prep Algebra II
AP Statistics	S1/S2	11-12	College Prep Algebra II or Honors Algebra II/Trig
AP Calculus AB	S1/S2	11-12	Honors Pre-Calculus

HONORS LEVEL

HONORS GEOMETRY	HONORS ALGEBRA II/TRIG	HONORS PRE-CALCULUS	AP CALCULUS
			AP STATISTICS

COLLEGE PREP LEVEL

PRE-ALGEBRA <small>not a college prep level course</small>	C OR	COLLEGE PREP ALGEBRA I	COLLEGE PREP GEOMETRY	COLLEGE PREP ALGEBRA II	COLLEGE PREP PRE-CALCULUS	AP STATISTICS
	BETTER	INFORMAL ALGEBRA I	INFORMAL GEOMETRY	INFORMAL ALGEBRA II	INFORMAL TRIG S1/S2	COLLEGE PREP CALCULUS
		<small>not a college prep level course</small>	<small>not a college prep level course</small>	<small>not a college prep level course</small>	<small>not a college prep level course</small>	COLLEGE PREP FINITE MATH TOPICS S1/S2
						COLLEGE PREP PROB & STATS S1/S2

PRACTICAL LEVEL

INTEGRATED MATH I	INTEGRATED MATH II	INTEGRATED MATH III	INTEGRATED MATH IV	APPLIED CONSUMER MATH
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NOTE: After a student successfully completes a course, he/she may not take a lower version of that course for credit. Each box represents one full year unless otherwise indicated. Students move to the right upon the successful completion of a course. To fulfill the algebra graduation requirement students taking the practical level pathway must successfully complete Integrated Math I, II, and III.

INTEGRATED MATH I GRADES 9-12—S1/2

This course is the first in the Integrated Algebra/Geometry curriculum sequence. Integrated Math I will focus on developing the student's basic understanding of algebraic concepts through the manipulation of algebraic quantities, graphing, and the solution of equations. Real life problem solving with the use of algebraic equations will be stressed.

INTEGRATED MATH II GRADES 10-12—S1/2

This course is the second in the Integrated Algebra/Geometry curriculum sequence. The focus of the course is to develop the student's understanding of basic Geometry while reinforcing the algebra concepts learned in Integrated Math I. Topics will include but not be limited to the terms of Geometry, angles, perpendicular and parallel lines, congruency, similar polygons, right triangles, circles, area, volume, quadrilaterals, and transformations.

Prerequisite: Integrated Math I

INTEGRATED MATH III GRADES 11-12—S1/2

This course is the third in the Integrated Algebra/Geometry curriculum sequence. The course will focus on expanding the student's knowledge of algebra by using geometry to reinforce new concepts. Real life problem solving with the use of algebraic equations, proportions and percents will be stressed. Topics will include but not be limited to integers, rational numbers, solving equations, inequalities, graphing linear equations, polynomials, factoring, matrices, statistics and probability.

Prerequisite: Integrated Math II

INTEGRATED MATH IV GRADES 9-12—S1/2

This course is the fourth in the Integrated Math sequence. The focus of the course is to further expand upon the student's algebraic skills. Topics include, but are not limited to, performing operations of real numbers and polynomials, factoring polynomials, solving and graphing linear equations and inequalities, solving word problems, manipulating formulas, systems of equations, quadratic equations, basic functions and their notations.

Prerequisite: Integrated Math III

APPLIED CONSUMER MATHEMATICS**GRADES 11-12—S1/2**

This course will provide students the opportunity to apply basic math skills in everyday situations, including running a business. Topics include, but are not limited to, percents, income, personal banking, consumer credit, income tax, budgeting, record keeping, personnel, production, marketing, warehouse and distribution, and accounting records.

PRE-ALGEBRA**GRADES 9-12—S1/2**

This course is designed for students who have mastered basic skills, but require additional experience with algebraic concepts in preparation for Algebra I. This course will introduce pre-algebra topics and will develop various geometric principles. Topics include variables, factors and exponents, equations, problem solving, formulas, organizing data, statistics, ratio and proportions, integers, polynomials, and geometry.

INFORMAL ALGEBRA I GRADES 9-12—S1/2

This course will be an informal study of algebraic topics. It is designed to provide the student the opportunity to further

develop their understanding of basic algebraic concepts and skills. The focus will be on solving and applying algebraic equations. The course includes the following topics: review of basic math skills, rational numbers, inequalities, polynomials, factoring, graphing linear equations, solving a system of equations, radical expression, statistics, probability, and percents. This course satisfies the Algebra credit requirement for high school graduation.

Prerequisite: Pre-Algebra or recommendation from 8th grade teacher

COLLEGE PREP ALGEBRA I**GRADES 9-12—S1/2**

This course prepares the student to continue studies in mathematics and aids the analytical thought process. The focus will be on solving and applying algebraic equations. The course includes the following topics: review of basic math skills, rational numbers, inequalities, polynomials, factoring, graphing linear equations, solving a system of equations, solving linear and quadratic equations, radical expression, statistics, probability, and percents. This course satisfies the Algebra credit requirement for high school graduation..

Prerequisite: Pre-Algebra or recommendation from 8th grade teacher

INFORMAL GEOMETRY GRADES 10-12—S1/2

This course will be an informal development of Euclidean geometry. The emphasis will be placed on the practical applications of geometric definitions, postulates, theorems and corollaries. Computer software will be used where appropriate. Topics will include the organization of geometry, undefined terms, angles, perpendicular lines, congruent triangles, triangles and inequalities, parallel lines, quadrilaterals, similarity, right triangles, polygons, space figures, circles, coordinate geometry, transformations, and right triangle trigonometry.

Prerequisite: Informal Algebra I or College Prep Algebra I

COLLEGE PREP GEOMETRY GRADES 9-12—S1/2

This course stresses the development of the student's ability to solve problems using a systematic and structured process. Emphasis will be on applying the theorems, corollaries, definitions, and postulates in applications. Topics include defined and undefined terms, angles, perpendicular lines, parallel lines and planes, congruent triangles, similar polygons, right triangle trigonometry, circles, area and volume, quadrilaterals, coordinate geometry and transformations.

Prerequisite: Informal Algebra I or College Prep Algebra I

HONORS GEOMETRY GRADES 9-10—S1/2

This course will be a formal deductive development of geometry using definitions, postulates, theorems, and corollaries, based on the relationships of points, lines, and planes in a two and three dimensional space. There will be extensive work in deriving and proving theorems and corollaries and their applications. Topics include defined and undefined terms, inductive and deductive reasoning, angles, perpendicular lines, parallel lines and planes, congruent triangles, quadrilaterals, similar polygons, right triangles, circles, area and volume, set theory, coordinate geometry, and transformations.

Prerequisite: Algebra I in the 8th grade

INFORMAL ALGEBRA II

GRADES 11-12—S1/2

This course develops and extends concepts learned in Algebra I with emphasis on teaching equations and their application to real world problems. The course will start with an extensive review of Algebra I topics. Topics will include vocabulary and operations of Algebra I, properties of real numbers, linear open sentences, functions and polynomials, factoring polynomials, rational expressions, radicals and irrational numbers, quadratic equations and functions, quadratic relations and systems, and exponential functions.

Prerequisite: Informal Algebra I or College Prep Algebra I & Informal Geometry or College Prep Geometry

COLLEGE PREP ALGEBRA II

GRADES 10-12—S1/2

Algebra II is the formal development and extension of Algebra I. The emphasis of this course is on teaching equation solving and its application in solving word problems. Topics include: vocabulary and operations of algebra, properties of real numbers, inequalities, linear equations and functions, polynomials, factoring, rational expression, irrational and complex numbers, quadratic equations, conic sections, exponential and logarithmic functions and sequences, series, matrices, and set theory. Graphing calculators are recommended.

Prerequisite: Informal Algebra I or College Prep Algebra I & College Prep Geometry

HONORS ALGEBRA II/TRIGONOMETRY

GRADES 10-11—S1/2

This course stresses both the structure and computations necessary to solve problems in algebra and trigonometry. The pace of the course is demanding and students should have a strong background in algebra and geometry. Topics include: vocabulary and operations of Algebra I, linear functions and relations, inequalities, determinants, conic sections, rational expressions, factoring, sequences and series, radicals and irrational numbers, complex numbers, polynomial functions, quadratic equations and systems, exponents and logarithms, trigonometric functions, identities, and right triangle trigonometry. Graphing calculators are recommended.

Prerequisite: Honors Geometry

INFORMAL TRIGONOMETRY

GRADE 12—S1/2

This course is a study of basic trigonometry. Topics include: angles and their trigonometric functions, trigonometry of the right triangle, reference angles, graphs of trigonometric functions, identities, trigonometric equations, inverse relations, and the solution of right and oblique triangles. Graphing calculators will be used where appropriate.

Prerequisite: Informal Algebra II or College Prep Algebra II

COLLEGE PREP PRE-CALCULUS

GRADES 11-12—S1/S2

Students choosing this course should enjoy mathematical challenges and have a solid background in both Algebra II and Geometry. The course presents and develops topics usually included in an introductory trigonometry and analysis course. Topics include angles, their trigonometric functions and equations, coordinate geometry, linear functions and inequalities, domain and range, inverse of functions, logarithmic and polynomial functions, parametric and polar

equations, vectors, matrices, and determinants, and solving systems of equations using matrices. Graphing calculators are strongly recommended.

Prerequisite: College Prep Algebra II or Honors Algebra II/Trigonometry

COLLEGE PREP CALCULUS

GRADES 11-12—S1/S2

Calculus is the branch of mathematics used to develop theories, solve practical problems, and help understand and predict natural phenomena. This course will ask students to investigate problems that cannot be solved by using algebra, geometry, or trigonometry alone. Coursework will include but not be limited to an integrated pre-calculus review (advanced algebra topics, limits and the continuity of a function), differential and integral calculus. Graphing calculators will be used extensively.

This course is a Project Running Start course

Prerequisite: College Prep Pre-Calculus or Honors Pre-Calculus

COLLEGE PREP FINITE MATHEMATICS TOPICS

GRADE 12—S1/2

This course will deal with various advanced mathematics topics. Topics will include linear equations, matrices, linear programming, graphing and simplex method, finance, sets and counting, and logic. Graphing calculators and computer software are used when appropriate.

Prerequisite: College Prep Algebra II

COLLEGE PREP PROBABILITY AND STATISTICS

GRADES 11-12—S1/2

This course introduces the student to probability and statistics. Topics include measures of center and variability, probability, permutations and combinations, normal distributions, samples, confidence intervals for means, proportions, linear regression and correlation, and binomial distributions. Students will learn how to use these concepts in related fields.

Prerequisite: College Prep Algebra II

ADVANCED PLACEMENT STATISTICS

GRADES 11-12—S1/2

The purpose of AP Statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Graphing calculators will be used extensively. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

Prerequisite: College Prep Algebra II or Honors Algebra II/Trig

HONORS PRE-CALCULUS

GRADES 11-12—S1/2

This course is the study of advanced mathematical topics needed as preparation for AP Calculus as well as Calculus II. Students need solid background in Geometry, Algebra II, and Trigonometry. Graphing calculators are used when appropriate. Topics covered include, but not limited to, linear and quadratic functions, polynomial functions, polynomial equations and inequalities, functions and their graphs, operations on functions, exponential and logarithmic functions and applications, analytic geometry, trigonometric functions and applications, trigonometric formulas, trigonometric equations, polar coordinates and polar form of

complex numbers, vectors, determinants and applications, matrices and applications, sequences and series, limits and continuity of functions, counting principles, and Binomial Theorem and curve fitting (time permitting).

Prerequisite: Honors Algebra II/Trigonometry

ADVANCED PLACEMENT CALCULUS AB

GRADE 11-12—S1/2

This course is designed to be equivalent to a college course in single variable Calculus. A multi-representational approach to calculus is emphasized with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are stressed as well. This course involves three major sections: functions, graphs and limits; and derivatives; and integrals.

Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.

Prerequisite: Honors Pre-Calculus

MUSIC

Course Name	Semester	Grades	Prerequisite
Marching and Concert Band	S1/S2	9-12	Audition and/or permission of instructor
Orchestra	S1/S2	9-12	Approval of the instructor; minimum string background
Jazz Intro Lab	S1/S2	9-12	Audition by the instructor
Jazz Ensemble	S1/S2	9-12	Band or Concert and Marching Band and/or approval of the instructor
Symphonic and Marching Band	S1/S2	10-12	Audition and approval of the instructor
Chorus	S1/S2	9-12	Recommended for Grade 9 or entry level singers
Concert Choir	S1/S2	9-12	Chorus or approval of the instructor
Chamber Choir	S1/S2	10-12	Chorus or Concert Choir and audition
Piano Fundamentals	S1/S2	9-12	Approval of the instructor or Music Director
College Prep Music Theory and Composition	S1/S2	10-12	Approval of the instructor
College Prep Orchestration and Arranging	S1/S2	11-12	Music Theory and Composition, and approval of the instructor

MARCHING AND CONCERT BAND

GRADES 9-12—S1/2

This is a program open to all band instrumentalists who can perform with a reasonable level of proficiency. Works suitable for both symphonic and marching are rehearsed, studied, and publicly performed. In addition to presenting concerts, the ensemble performs for school and community functions, parades, and football games. Students are encouraged to participate in various state and regional events such as NH All-State Festival. Out of school time is required for rehearsals and performances, including football halftime shows. There are also parades and other events which take place during the year. Participation in the Marching Band is a course requirement.

Course may be taken more than once for credit

Prerequisite: Audition and/or permission of instructor

ORCHESTRA

GRADES 9-12—S1/2

This is a program open to any student who has a background in performing on an orchestral string instrument. Works suitable for symphonic and string ensemble are rehearsed, studied and publicly performed. Students in Orchestra are required to practice individually a minimum of thirty minutes a day. In addition to its two major productions annually, the Orchestra may also participate in exchange concerts, music festivals, and other local performances.

Course may be taken more than once for credit

Prerequisite: Approval of the instructor; minimum string background

JAZZ INTRO LAB

GRADES 9-12—S1/2

This is an instrumental performance program open to all instrumental students. Candidates for this course should be able to play with reasonable competence on one of the

following instruments: flute, clarinet, saxophone, trumpet, trombone, rhythm/lead guitar, bass guitar, piano, or drums. In this course, a foundation in the basic elements and structural features of various styles and periods of jazz (swing, funk, and rock) will be developed, including improvisation. Performances for the Jazz Ensemble will be determined on an annual basis.

Course may be taken more than once for credit

Prerequisite: Audition by the instructor

JAZZ ENSEMBLE

GRADES 9-12—S1/2

This is an instrumental performance program open to students by audition only. Candidates for this course should be able to accurately play, as well as sight-read one of the following instruments: saxophone, trumpet, trombone, rhythm/lead guitar, piano, string bass/bass guitar, or drums. In this course the basic elements and structural features of various styles and periods of jazz will be studied, rehearsed and performed. Listening exercises and development of the improvisations skills will also be included. In addition to its two major productions annually, the Jazz Ensemble may also participate in exchange concerts, music festivals, or as part of other local performances.

Course may be taken more than once for credit

Prerequisite: Marching and Concert Band and/or approval of the instructor

SYMPHONIC AND MARCHING BAND

GRADES 10-12—S1/2

This is a program open to band instrumentalists who have a desire to play a more collegiate level of concert band and wind ensemble literature. Acceptance is by audition and is based upon performance proficiency as well as ensemble balance and commitment to the program. Works suitable for both symphonic and marching are rehearsed, studied, and publicly performed. In addition to presenting concerts, the ensemble performs for school and community functions, parades, and football games. Students are encouraged to

participate in various state and regional events, such as the New Hampshire All-State Music Festival, Solo, and Ensemble Festival, etc. Out of school time is required for rehearsals and/or performances, including certain school holidays. Participation in the marching portion of the program is expected.

Course may be taken more than once for credit

Prerequisite: Audition and approval of the instructor

CHORUS

GRADES 9-12—S1/2

This program is open to all students; however placement auditions will be held. Choral works in the style of folk, classical, semi-classical, jazz, and pop are studied and performed. The course strives to cultivate the fundamental principles of singing through the study of tone production, resonance, breath control, diction, and voice. Special emphasis will be placed on reading music and basic musicianship. In addition to its three major annual productions, the Chorus also participates in other music festivals. Advancement into Concert Choir and/or Chamber Choir is encouraged.

Course may be taken more than once for credit

Recommended for Grade 9 or entry level singers

CONCERT CHOIR

GRADES 9-12—S1/2

This is a program open to all students, although placement auditions will be held. As a follow-up to Chorus, students in Concert Choir will continue working on the fundamentals, emphasizing larger works in the mixed choral repertoire. In addition to its three major annual productions, the ensemble may also participate in adjudication festivals, as well as other special concerts and musical events.

Course may be taken more than once for credit

Prerequisite: Chorus or approval of the instructor

CHAMBER CHOIR

GRADES 10-12—S1/2

Students interested in this course should be able to accurately sing an unaccompanied musical line, as well as sight-read melodic and rhythmic passages. The course strives to cultivate perfect balance as it relates to musical blend and to further enhance one's vocal experience by rehearsing and performing a more difficult level of choral literature – both accompanied and a capella.

Course may be taken more than once for credit

Prerequisite: Chorus or Concert Choir and audition, and approval of the instructor

PIANO FUNDAMENTALS

GRADES 9-12—S1/2

This music instruction course is designed for students who have an interest in learning basic piano skills. Notation reading, study of major and minor scales, chords, progressions, and harmonization with melodies will be learned, practiced and performed. Solo, duet and some ensemble works from different periods will also be included. Students should have access to a piano or keyboard outside of school, as daily practice will be expected. This class is especially suited for the beginning pianist.

Course may be taken more than once for credit

Prerequisite: Approval of the instructor or Music Director

COLLEGE PREP MUSIC THEORY AND COMPOSITION

GRADES 10-12—S1/2

This is a program designed to introduce the serious-minded musician to the basic fundamentals of music and the complexities of composition. Candidates for this course must be able to read and understand music notation at an intermediate level. Students will learn to identify key signatures, define intervals, build and identify chord structures, take melodic, rhythmic, and harmonic dictation, develop keyboard familiarity, sight-sing musical notation, and develop musical vocabulary. In addition, students will construct major and minor scales, analyze form, and study tonality and modality. Through the study of elementary harmony, students will analyze and compose four-part harmonization of melodies, using primary and secondary chords, and will progress through learning how to compose music of their own.

Prerequisite: Approval of the instructor

COLLEGE PREP ORCHESTRATION AND ARRANGING

GRADES 11-12—S1/2

This is an advanced program of study to learn instrumentation, scoring and arranging techniques for various musical compositions. Emphasis will be placed on the development and performance of students' individual works. Students will study form and analysis, learn transpositions and ranges of instruments. Beginning keyboard techniques will also be included. Students will compose and arrange in a variety of styles, perform other students' compositions, and participate in a presentation of original works in recital.

Prerequisite: Music Theory and Composition, and approval of the instructor

PHYSICAL EDUCATION

Course Name	Semester	Grades	Prerequisite
Physical Education I	S1/S2	9	
Wellness	S1/S2	9	Fulfills Health and PE I requirements
Women's Lifetime Fitness	S1/S2	10-12	Fulfills PE II requirement
Walking For Wellness	S1/S2	10-12	Fulfills PE II requirement
Lifetime Sports	S1/S2	10-12	Fulfills PE II requirement
Team Sports	S1/S2	10-12	Fulfills PE II requirement
Physical Education Interactive	S1/S2	9-12	PE I, PE II elective, and interview with instructor
Physical Education Activities	S1/S2	11-12	Health or Wellness, PE I, PE II elective, and interview with instructor

PHYSICAL EDUCATION REQUIRED GRADE 9

PHYSICAL EDUCATION I

GRADE 9—S1/2

This required course includes classroom instruction in organized game activities. Physical Education activities include: track and field, football, soccer, field hockey, venture skills, basketball, volleyball, gymnastics, team handball, aerobics, low organized games, Venture course, and physical fitness assessment.

WELLNESS

GRADE 9—S1/2

Freshman Wellness is a one year course combining health and fitness components designed to help students acquire the knowledge, practical skills, and habits needed to enhance personal health and wellness. Students will be given the opportunity to better understand the relationship between exercise, activity, nutrition, and healthy living by developing their own lifelong fitness program. Students will be required to change clothing for the PE activities. The course will fulfill the .5 Health credit and the .5 PE I credit required for graduation.

PHYSICAL EDUCATION II REQUIRED GRADE 10

TO FULFILL THE SECOND HALF OF THE PHYSICAL EDUCATION REQUIREMENT, A STUDENT MUST CHOOSE ONE OF THE SEMESTER CLASSES OFFERED. SEMESTER COURSES THAT FULFILL THE PE II REQUIREMENT INCLUDE:

- WOMEN'S LIFETIME FITNESS
- WALKING FOR WELLNESS
- LIFETIME SPORTS
- TEAM SPORTS

WOMEN'S LIFETIME FITNESS

GRADES 10-12—S1/2

This course is designed to improve an individual's general level of fitness. Each major area of fitness will be addressed through various activities to include strength training, flexibility, running, and aerobic exercise. A pre- and post-fitness assessment will be conducted for personal goal setting.

WALKING FOR WELLNESS

GRADES 10-12—S1/2

This course will include a regular and progressive walking program to improve cardiovascular fitness. The class will give students a way of keeping fit for a lifetime and learning the importance of daily activity in maintaining a healthy lifestyle. Students will be required to participate in a pre- and post- fitness test, set personal goals, and maintain individual exercise logs. The primary means of exercise will be walking. Students should expect to walk outdoors under most weather conditions.

LIFETIME SPORTS

GRADES 10-12—S1/2

This course is designed for students who want to remain active and who are interested in learning about lifetime sports. Students will gain knowledge of individual and dual sports that may be carried into adulthood for enhancement of life. There will be a fitness component to this course designed to enhance personal wellness. Activities include but are not limited to archery, golf, racket skills, table tennis, weight training, orienteering, yoga, dance, and climbing wall.

TEAM SPORTS

GRADES 10-12—S1/2

Students in this course will receive instruction and participate in a variety of sports to include but not limited to basketball, soccer, team handball, floor hockey, volleyball, softball, football. Students will explore both the technical and tactical side to each of these sports. There will be a fitness component to the course designed to enhance personal wellness. Team Sports will incorporate small side games as well as tournament play.

PHYSICAL EDUCATION INTERACTIVE

GRADE 11-12—S1/2

This course is designed for students who are interested in sharing their knowledge with students who need one-on-one assistance to succeed. The course will allow the student the opportunity to work with special need students to help them participate in a range of physical education activities. The course is an excellent choice for students considering careers in education or in working with the special needs population.

Prerequisite: Health or Wellness, PE I, PE II and interview with instructor

PHYSICAL EDUCATION ACTIVITIES

GRADE 11-12—S1/2

Students in this course will participate in a variety of leisure time activities. Emphasis will be on activity rather than on specific skill development. Activities will include archery, jogging, basketball, volleyball, soccer/football, team handball, floor hockey, softball, wrestling, gymnastics, winter venture, physical fitness/weight training, table tennis/badminton, handball, tennis, low organized games, crab soccer, pushball and aerobics.

Course may not be taken more than once for credit.

Prerequisite: Health or Wellness, PE I, PEII, and interview with instructor

READING

Course Name	Semester	Grades	Prerequisite
Literacy Lab I	S1/S2	9-12	
Literacy Lab II	S1/S2	9-12	Literacy Lab I
Young Adult Literature	S1/S2	9-12	

LITERACY LAB I

GRADE 9-12—S1/2

Literacy Laboratory is a research-based one-semester course designed to help students improve their reading, writing, and speaking abilities by developing cognitive and metacognitive skills. Various informal assessments will measure literacy placement and success at the beginning and end of the semester. This class will train students in phonemic awareness, word parts/vocabulary, how to read out loud fluently, to learn and apply strategies to various print and non-print texts, to improve writing, and encourage students to read for pleasure. The lessons may be applied to core classes to help students find overall academic success through the application of this reading program.

Course may be taken more than once for credit

LITERACY LAB II

GRADE 9-12—S1/2

Literacy Laboratory II takes the skills and applications learned through Literacy Lab I and brings reading, writing, and speaking to the next level. In this class, students are taught and encouraged to read more complicated and longer text (print and non-print), begin to publish and edit writing at a more advanced level, and prepare

for more challenging speaking endeavors. In this class, students will continue to build upon the strategies learned through Literacy Lab and elaborate on the more advanced facets of metacognition. **Prerequisite: Literacy Lab I.**

Course may be taken more than once for credit

YOUNG ADULT LITERATURE

GRADES 9-12—S1/2

Young Adult Literature is designed to help students develop a life long love of reading. The books read in this course contain current themes and issues that are interesting and relevant to young adults today. Students in YAL will receive direct instruction in research based reading strategies. Students will also learn how to strengthen their vocabulary knowledge by applying, analyzing, and working on mastering contextual vocabulary and word study strategies in preparation for standardized tests such as the SAT, as well as in preparation for post-secondary education.

SCIENCE

Course Name	Semester	Grades	Prerequisite
College Prep Freshman Science	S1/S2	9	
Biology Concepts	S1/S2	10	
College Prep Biology	S1/S2	10	
Honors Biology	S1/S2	10	
Chemistry Concepts	S1/S2	11-12	
College Prep Chemistry	S1/S2	11-12	Informal Algebra I or College Prep Algebra I
Honors Chemistry: Special Materials (SPAM)	S1/S2	11-12	College Prep Algebra II (concurrent or previously taken) and Biology or Honors Biology
Physical Science Concepts	S1/S2	11-12	
College Prep Biotechnology	S1/S2	11-12	Biology Concepts or College Prep Biology or Honors Biology
Physics Concepts	S1/S2	12	Informal Algebra I or College Prep Algebra I
College Prep Physics	S1/S2	12	Prerequisite: College Prep Algebra I required, College Prep Algebra II highly recommended
Honors Physics	S1/S2	12	College Prep Algebra II and College Prep Chemistry—may be taking classes concurrently
AP Environmental Science	S1/S2	11-12	College Prep Biology, College Prep Chemistry, College Prep Algebra I
Honors Anatomy & Physiology	S1/S2	12	College Prep Biology or Honors Biology
Honors Advanced Topics in Chemistry	S1/S2	12	College Prep Chemistry or Honors Chemistry (SPAM)
Science Interactive	S1/S2	11-12	College Prep Freshman Science, College Prep Biology or Biology Concepts, interview with instructor

COLLEGE PREP FRESHMAN SCIENCE

GRADE 9—S1/2

This technology rich course will involve a detailed study in the life and physical science areas. Computer access provides current data and trends used in the study of physical, environmental, and earth science. The use of scientific methods is incorporated within each subject area, allowing students to participate as scientists in the collection, analysis, and practical application of data for personal and public awareness. Hands-on activities and demonstrations are used to support main concepts relevant to each area of study. Each content area is related to the students' personal lives and encourages the development of scientific ethics needed for active, responsible citizenship.

This fulfills the Physical Science requirement

BIOLOGY CONCEPTS

GRADE 10—S1/2

This course is designed to develop basic biological skills while examining the fundamental characteristics of living organisms. Extensive hands-on laboratory and group activities help develop learning skills. Topics investigated include the scientific process, evolution, the cell, homeostasis, genetics, microbiology, and the impact of biology has on everyday living.

COLLEGE PREP BIOLOGY

GRADE 10—S1/2

This course is designed to give students an understanding of the scientific processes of biology and the nature of life. It is designed for students who anticipate continuing their education after high school. Course content includes the study of living organisms at the molecular and cellular levels including biochemistry, homeostasis, photosynthesis, respiration, biological evolution, genetics, DNA and protein production. Attention is given to the understanding of scientific principles through experimentation.

HONORS BIOLOGY

GRADE 10—S1/2

This laboratory course is designed to provide students with opportunities to investigate the concept of living organisms through varied and involved learning processes. Students will be exposed to current trends in biology by actively participating in the development of experiments, projects, and small group activities. Students will research and analyze biological concepts that will provide connections between such themes as investigational inquiry, history, structure and function, diversity, regulation, homeostasis and their applications to everyday life. The art of science technical writing will be stressed.

CHEMISTRY CONCEPTS

GRADES 11-12—S1/2

This course utilizes the laboratory approach to introduce and to develop the understanding of chemical concepts and principles. Topics include the metric system, chemical and physical changes, atomic structure and periodicity, writing chemical formulas and equations, gas laws, acids and bases, solutions, forensic chemistry and selected topics in organic chemistry. Some math background is required.

COLLEGE PREP CHEMISTRY

GRADES 11-12—S1/2

Chemistry is a course that is organized around important concepts that have wide application in the field of science. These concepts include atomic structure, chemical bonding, periodic trends, chemical equations, the mole, stoichiometry, the gas laws, chemical equilibrium, and oxidation – reduction. The overall goal of this course is for students to understand and explain the fundamental principles of chemistry and to encourage them to apply their knowledge and become independent learners. In order for this goal to be met, problem solving and study skills will be stressed. The content of this course is beneficial to all students particularly those

who plan to attend post-secondary schools. It is particularly beneficial for students interested in pursuing careers related to health and medicine, the environment, all sciences and engineering. Since the course is mathematically oriented, a grade of “C” or above in Algebra I is recommended.

Prerequisite: Informal Algebra I or College Prep Algebra I

HONORS CHEMISTRY: SPECIAL MATERIALS (SPAM)

GRADES 11-12—S1/2

This is a lab-centered course utilizing the materials of the chemistry program. Emphasis is on the integration of mathematical concepts, chemical bonding, and experimentation as well as on the development of concepts, theories, and principles of modern chemistry. Gradually, the student is introduced to major generalizations including energy and chemical reactions, rates of chemical reactions, equilibrium and chemical reactions, stoichiometry, periodicity of chemical properties and atomic structure. After the generalizations have been developed through experimentation, students are expected to continue using what they have learned in interpreting and understanding more complex ideas.

Prerequisite: College Prep Algebra II (concurrent or previously taken) and College Prep Biology or Honors Biology

COLLEGE PREP BIOTECHNOLOGY: SCIENCE IN THE NEW MILLENNIUM

GRADES 11-12—S1/2

The biotechnology industry has exploded on both the local and national scale creating an expanding need for a trained workforce. Biotechnology is applied biology; it allows us to use organisms to make useful products. Traditional biotechnology products include foods such as cheese and bread. Modern biotechnology products include medicines produced in bacteria, gene therapies to treat illnesses, crops that are modified to be more productive or nutritious and organisms that can degrade environmental contaminants. Hands-on exposure to tools and protocols used in the biotechnology industry will occur throughout the year. Therapeutic pharmaceutical manufacturing, medical diagnostic testing, forensics, agriculture, good manufacturing procedures, bioinformatics, and bioethics are just a few of the topics that will be investigated through the use of microorganisms.

This is a Project Running Start Course.

Prerequisite: Biology Concepts or College Biology or Honors Biology

Note: Double period

PHYSICAL SCIENCE CONCEPTS

GRADES 11-12—S1/2

This course is designed to provide students with an opportunity to investigate principles related to physical science. Extensive hands-on laboratory and group learning activities will be employed in the investigation of topics including measurement, energy, matter, atomic structure, chemical reactions, nature of forces, motion and wave properties.

PHYSICS CONCEPTS

GRADE 12—S1/2

This course is designed to present the fundamental principles of physics. Basic properties of matter and energy are investigated. Basic mathematical operations are fundamental to the nature of the course. The major topics covered include measurements, motion, vectors, forces, power, work, energy, momentum, wave motion, light, sound, optics, electrostatics, circuits, magnetism, and radioactivity.

Prerequisite: Informal Algebra I or College Prep Algebra I

COLLEGE PREP PHYSICS

GRADE 12—S1/2

This course is designed to provide a solid background in physics for students with an interest in attending post-secondary school and for students with an interest in math and science who wish to take a challenging science class. The course includes a substantial amount of laboratory work and other hands-on activities that reinforce important physics concepts. Students will rely heavily on technology in support of experimentation and analysis. Students will learn and be expected to demonstrate skills required for success in college sciences such as: 1) reading and understanding the text and science related articles, 2) synthesizing information learned in this course as well as previous science and math courses, 3) problem solving, and 4) relating physics concepts to life experiences. Topics include measurements, kinematics and dynamics, conservation laws, wave properties, sound and light, electrostatics, electric current, and magnetism.

Prerequisite: College Prep Algebra I required, College Prep Algebra II highly recommended

HONORS PHYSICS

GRADE 12—S1/2

This course is an in-depth study of physics for the science-oriented student. Core topics include measurement, error, special relativity, kinematics, dynamics, the conservation laws, wave properties, sound, electrostatics, current electricity, and the properties of light. The course will include a substantial laboratory component which will require data collection, analysis, and presentation; relying heavily on the use of technology. Students will be expected to have good math skills. Although calculus is not required for success in this class, it will be presented as an alternative to algebra-based problem solving methods. Students will be expected to understand the derivations of the mathematical relationships that describe physical phenomena, consider opposing scientific points of view, and reconcile experimental results with theory. Readings will include a college-level text and outside readings from primary sources. This course is recommended for students who intend to apply to competitive schools, and for those interested in careers in science or engineering related careers.

This course is a Project Running Start course.

Prerequisite: College Prep Algebra II and College Prep Chemistry (may be taking College Prep Chemistry concurrently)

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

GRADES 11-12—S1/2

The AP Environmental Science course is designed to be equivalent to an introductory college course in environmental science. This course has been developed as a rigorous science course providing the scientific principles, concepts, and the methodologies required to understand the interrelationships of the natural world. Environmental problems, both natural and man-made, are identified and analyzed. The relative risks associated with these problems are evaluated and the alternative solutions for resolving and/or preventing them are examined. **Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

This course is an excellent option for students who have completed two years of high school laboratory science or are concurrently enrolled (i.e. College Prep Biology and College Prep Chemistry) and have completed at least College Prep Algebra I.

COLLEGE PREP ANATOMY AND PHYSIOLOGY

GRADE 12—S1/2

This course is designed for students who are interested in broadening their experiences in biology and recommended for any student interested in pursuing a career in the medical field such as pre-medical, pre-veterinarian, pre-dental, forensics, and nursing. It will cover the structure and function of the human body with its complex systems in depth. The body will be studied from the molecular, cellular, tissue, organ and system levels. Laboratory work will supplement the discussion topics. Projects, papers, the study of preserved specimens and dissections (or its equivalent) will be assigned. Students will be expected to continue work outside the class and after school. Students will have the option of taking this course for honors or college prep level credit. The teacher will present the different level option at the beginning of each semester.

This course is a Project Running Start course.

Prerequisite: Biology Concepts or College Prep Biology or Honors Biology

HONORS ADVANCED TOPICS IN CHEMISTRY

GRADE 12—S1/2

This course is designed to explore the breadth of chemistry. Course content will focus on a detailed study of concepts introduced in the previous year, as well as exploring Organic Chemistry and Biochemistry. First semester topics include stoichiometry, net ionic equations, redox, equilibria, and acid-base equilibria. Second semester consists of exploring the basic concepts of Organic Chemistry and Biochemistry. Topics in Organic Chemistry include organic nomenclature, pKa, electron-pushing, resonance structures and reaction mechanisms. Topics covered in Biochemistry include understanding proteins at the molecular level and a detailed study of the structure-function relationship of myoglobin and hemoglobin. This course is recommended for all students who plan to pursue a career in any chemical-related field as well as in medical, pharmaceuticals, forensics, chemical engineering, pre-med, pre-vet and pre-dental degree programs.

Prerequisite: College Prep Chemistry or Honors Chemistry (SPAM)

SCIENCE INTERACTIVE

GRADES 11-12—S1/2

This course is designed to allow students with an interest in Science to share their enthusiasm with students who need one-on-one assistance. Topics in physics, chemistry, environmental science, biology and health will be covered. Lab activities will be the driving force behind this “hands on” class. Basic lab safety will be taught and enforced. All students will have a voice in topics to explore. Students will be able to revisit previously covered lessons as part of student choice “Free Fridays”. This course is an excellent choice for those students with an interest in teaching and/or working with the special needs population.

Prerequisite: College Prep Freshman Science, College Prep Biology or Biology Concepts, Interview with the instructor

SOCIAL STUDIES

Course Name	Semester	Grades	Prerequisite
World History	S1/S2	9	
College Prep Freshman Humanities	S1/S2	9	Recommendation of current instructor Must also register for English counterpart
World Studies	S1/S2	9	Administrative Placement Only Must also register for English counterpart
College Prep United States History	S1/S2	10	
College Prep Sophomore Humanities	S1/S2	10	Recommendation of current instructor Must also register for English counterpart
College Prep Civics	S1/S2	11	
College Prep Economics	S1/S2	11	
College Prep Law Studies	S1	11-12	
College Prep The World at War	S1	11-12	
College Prep Psychology	S1/S2	11-12	
College Prep Peace Studies and Philosophy	S1/S2	11-12	
College Prep Current Issues	S2	11-12	
College Prep Law and Mock Trial	S1/S2	11-12	Recommendation of current instructor
College Prep Political Science	S2	11-12	
College Prep Sociology	S1/S2	11-12	
AP European History	S1/S2	11-12	Recommendation of current instructor
AP US Government and Politics	S1/S2	11-12	Recommendation of current instructor Fulfills Civics requirement
AP US History	S1/S2	11-12	Recommendation of current instructor
Political and Spatial Geography	S1	11-12	
Social and Environmental Geography	S2	11-12	

WORLD HISTORY

GRADE 9—S1/2

This course covers selected topics in modern world history through the present day. The growth and importance of movements and ideas such as democracy, imperialism, and nationalism will be examined. The advancement of Western civilization in art, science, and technology will be analyzed. Crucial events in European History, including the Protestant Reformation, the French and Russian Revolutions, and World Wars I and II, the Cold War and post colonial national development will receive special attention. The course will be based on class discussions, the reading of primary sources, projects, and media center research.

COLLEGE PREP FRESHMAN HUMANITIES

GRADE 9—S1/2

This course, which fulfills the Freshman English and Social Studies requirements, is designed to provide a comprehensive historical and literary survey of the development of civilization through World War II. Through various forms of literature and resources, students will examine important movements, ideas, and events in world history. The course will include a rigorous reading requirement as well as provide intensive writing instruction. Classes will incorporate discussions, projects, and media center research.

Required summer reading will be assigned.

Note: Double Period

Must also register for the English counterpart

Prerequisite: Recommendation of current instructor

WORLD STUDIES

GRADE 9—S1/2

This is a humanities based course that fulfills the Freshman English and Social Studies requirements. Students will examine important movements, ideas, and events in world history through various forms of literature and other resources. Students will also receive study skills instruction with a focus on reading skills, vocabulary and comprehension. Strategies in note taking, test taking and textbook usage will also be provided. The course may include a variety of instructional approaches such as reading and writing instruction, class discussions, projects, media center research, field trips and guest speakers.

Note: Double Period

Must also register for English counterpart

Prerequisite: Administrative Placement Only

COLLEGE PREP UNITED STATES HISTORY

GRADE 10—S1/2

This is a survey course focusing on American History from 1877 through the present. Emphasis will be placed on the political, social and economic events that have affected our country. Learning will take place through discussions, projects, analysis of primary and secondary sources, writing, text readings, etc. The course aims to help students become more informed educated citizens.

COLLEGE PREP SOPHOMORE HUMANITIES

GRADE 10—S1/2

This course, which fulfills the sophomore English and Social Studies requirements, will provide a comprehensive historical and literary review of American History beginning with the Civil War through the present. The course will include a rigorous reading requirement as well as provide intensive writing instruction. Classes will incorporate discussions, projects, and media center research

Required summer reading will be assigned.

Note: Double Period

Must also register for the English counterpart

Prerequisite: Recommendation of current instructor

COLLEGE PREP CIVICS

GRADE 11—S1/2

This course describes the organization and operation of government on the local, state, and national levels. Students will be exposed to the major ideas, protections, privileges, structures, and economic systems that affect the life of a citizen in the US political system. Students will also be able to identify some of the challenges in US foreign policy and other issues facing Americans as well as understand their rights and responsibilities as citizens in America today.

COLLEGE PREP ECONOMICS

GRADE 11—S1/2

This course is designed to introduce students to both Macro and Micro-Economics. The course examines the different economic systems that exist in today's world, with special emphasis placed on the mixed economy of the United States. Further topics of study include the principles of supply and demand, business organization, labor, finance, GDP, employment, fiscal and monetary policy, budgeting, and the United States' role in the greater world economy. This course is designed to provide students with a background in economic principles.

COLLEGE PREP LAW STUDIES

GRADES 11-12—S1

This course is designed to give the student some practical knowledge of the principles of civil and criminal law. The text used is Street Law and emphasis will be placed on an understanding of the US Supreme Court and cases as they apply to students. Some of the major topics will include the US Supreme Court, legal problems of today, rights and obligations of adults and juveniles, the juvenile justice system, social laws, students' rights, and law related careers. Activities may include reading, current applications of laws, research, and guest speakers from many aspects of the field of Law and possible field trips.

***Note: This course DOES NOT provide preparation for the 2nd semester "Mock Trial" course.**

COLLEGE PREP THE WORLD AT WAR

GRADES 11-12—S1

This course will provide an in depth study of World War I and World War II. Major themes to be studied during World War I will include the Balkan Crisis, the breakdown of the Alliance System, trench warfare, the genocide in the Ottoman Empire, and the Treaty of Versailles. Major themes of World War II may include topics such as the rise of fascism, the failure of the League of Nations, the creation of the United Nations, and the use of atomic power.

COLLEGE PREP PSYCHOLOGY

GRADES 11-12—S1/2

This course is designed to study the social and biological explanations for human behavior. Areas of study covered include the biological basis of behavior, states of consciousness, sensation and perception, lifespan development, stress and health (incorporates the topic of death and dying), learning and memory, personality, and psychological disorders. The course will be based on class discussions, various selected readings, media center research, projects, and essays.

COLLEGE PREP PEACE STUDIES AND PHILOSOPHY

GRADES 11-12—S1/2

This course is designed to expose students to concepts and methods of nonviolent resolution, focusing on all levels of human interaction. Peace Studies and Philosophy begins by examining how the human mind is organized. What are the forces/instincts acting upon it? If we're conflicted within, can there ever be world peace? How did Socrates, Plato, Rousseau, Nietzsche, Kierkegaard, Sartre, Freud and Jung answer these questions? The second unit explores the concept of peace in the modern world. We'll discuss the major issues and peace organizations with which today's peace activists are involved. The third and final unit considers human happiness. How have the great philosophers and religions of the world defined happiness and described how we can achieve it?

COLLEGE PREP CURRENT ISSUES

GRADES 11-12—S2

This course will provide a background for the interpretation and evaluation of the complex issues which confront our society today. In a time when "change" is the password of our country and the world, students will examine and form knowledgeable opinions on such diverse issues as international affairs, politics, education, poverty, racial discrimination, and other contemporary topics.

COLLEGE PREP LAW AND MOCK TRIAL

GRADES 11-12—S1/S2

This year long course covers the Law Studies curriculum and allows students to participate in several mock trials and hearings. Students will develop an appreciation of the American justice system, an understanding of the role of law in a democratic society, reasoning, analytical and oral advocacy skills through the application of civility, and an understanding of responsible citizenship. Students will learn courtroom procedures and the role and responsibilities of judges, attorneys, jurors, witnesses and court personnel. Students will be expected to fulfill out of class time commitments as well.

COLLEGE PREP POLITICAL SCIENCE

GRADES 11-12—S2

This course is designed to give students a basic introduction to political theory and government types and structures throughout the world. Both historical background and modern day governmental issues will be discussed. The study of these issues will familiarize students with ways in which people in various cultures govern and are governed. In addition, the interaction of present day nation states will be explored through an in-class study of the United Nations, its role and purposes, the member countries of the Security Council, and a final class activity of a Mock Security Council. Issues of war, peace, famine, ethics and morality, and globalism will be explored.

COLLEGE PREP SOCIOLOGY GRADES 11-12—S1/S2

This course will focus on the study of human society and social behavior. Students will examine people and their ways of life as well as study social trends, cultural changes, human development, social institutions, and collective behavior. Students will then apply their knowledge of sociology in examining contemporary American problems. This will provide students with a better understanding of the complicated society in which they live.

ADVANCED PLACEMENT EUROPEAN HISTORY

GRADES 11-12—S1/2

This course is a study of European history from 1350 to the present. This course will stress the Renaissance and Reformation, the Enlightenment, the age of discovery, the Napoleonic era, the unification period, imperialism, the world wars and interwar years, as well as the Cold War and present trends towards European integration. Throughout the course, emphasis will be placed on the geography of Europe and the interrelationships of its people. European cultures, social and political movements, and economic trends will be investigated as they develop and adapt into their modern forms. The course is designed to provide a fast-paced intensive experience in reading, writing, and research skills.

Required summer reading will be assigned.

Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.

Prerequisite: Recommendation of current instructor

ADVANCED PLACEMENT UNITED STATES GOVERNMENT AND POLITICS

GRADES 11-12—S1/2

This course is designed to give students an analytical perspective on government and politics in the United States. It will include both the study of general concepts used to interpret U.S. politics and the analysis of specific examples. Topics that may be included are constitutional underpinnings of the United States government, political beliefs and behaviors, political parties, interest groups and mass media, institutions of national government, public policy, civil rights and civil liberties. Although there is no prerequisite for this course, students should familiarize themselves with the various institutions, groups, beliefs and ideas that constitute U.S. politics. **Required summer reading will be assigned. Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May. This course**

fulfills the Civics requirement. Prerequisite: Recommendation of current instructor

ADVANCED PLACEMENT UNITED STATES HISTORY

GRADES 11-12—S1/2

This course is a study of American history from the period of early colonization to the present. This course offers a fast-paced intensive coverage of the social, political, military and economic events and trends of American history. The program prepares students for intermediate and advanced college courses by making the same types of assignments as those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented therein. Stress will be placed on student responsibility for work outside the class. **Required summer reading will be assigned. Students in this course are strongly encouraged to participate in the Advanced Placement examination administered by the College Board in May.**

Prerequisite: Recommendation of current instructor

POLITICAL AND SPATIAL GEOGRAPHY

GRADES 11-12—S1

In this course, students will use maps, statistics, globes, and other graphic tools and technologies to acquire, process, report, and analyze geographic information. Students will demonstrate an understanding of the physical (place-name) and human geographic features that define our world, and the forces of cooperation and conflict that exist among peoples (United Nations, realpolitik, diplomacy, alliance systems, areas of conflict, strategic points, and economic interdependence). In addition, students will demonstrate an understanding of the physical processes that shape the Earth's surface and the characteristics of the world's political systems. This course complements courses in politics, history and current events.

SOCIAL AND ENVIRONMENTAL GEOGRAPHY

GRADES 11-12—S2

In this course students will use maps, statistics, globes, and other graphic tools and technologies to study the effects of humanity on the planet. This course studies the complexity of the world's "cultural mosaic" including the issues of race & religion, culture and language. Students will investigate the connections and consequences of the interaction between human populations and the earth. This study of environmental geography will touch upon the issues of pollution, desertification, rain-forest depletion, global warming, rising sea levels and their effect upon the world's human population. This course complements courses in AP environmental science and sociology.

SPECIAL EDUCATION

Course Name	Semester	Grades	Prerequisite
Math 9	S1/S2	9-12	Special Education Team Placement Meeting
Math 10	S1/S2	9-12	Special Education Team Placement Meeting
Math 11	S1/S2	9-12	Special Education Team Placement Meeting
Math 12	S1/S2	9-12	Special Education Team Placement Meeting
English 9	S1/S2	9-12	Special Education Team Placement Meeting
English 10	S1/S2	10-12	Special Education Team Placement Meeting
English 11	S1/S2	11-12	Special Education Team Placement Meeting
English 12	S1/S2	12	Special Education Team Placement Meeting
Individualized Reading	S1/S2	9-12	Special Education Team Placement Meeting Course may be repeated with approval of Guidance Director and Special Education Director
Decoding and Reading Comprehension	S1/S2	9-12	Special Education Team Placement Meeting Course may be repeated with approval of Guidance Director and Special Education Director
Information Technology and Me	S1/S2	9-12	Fulfills the Computer Education requirement
World History 9	S1/S2	9-12	Special Education Team Placement Meeting
United States History 10	S1/S2	10-12	Special Education Team Placement Meeting
Consumer Economics	S1/S2	11-12	Special Education Team Placement Meeting
Civic Responsibility	S1/S2	11-12	Special Education Team Placement Meeting
Science 9	S1/S2	9-12	Special Education Team Placement Meeting
Biology 10	S1/S2	10-12	Special Education Team Placement Meeting
Academic Core	S1/S2	9-12+	Special Education Team Placement Meeting/Alternative diploma track
Occupational Planning	S1/S2	9-12+	Special Education Team Placement Meeting/Alternative diploma track
Project Work	S1/S2	9-12+	Special Education Team Placement Meeting

MATH 9

GRADES 9-12—S1/2

This course focuses on a review and re-teaching of the four basic operations: addition, subtraction, multiplication, and division of positive and negative integers including whole numbers, fractions, and decimals. Students will learn to read, interpret, write, and solve word problems while incorporating the use of calculators to check their work. The course also offers an introduction to understanding concepts in algebra, including order of operations, factoring, and solving single–two step problems. Probability, proportions, percents, ratios, basic geometry are also introduced in solving algebraic equations. Real world life experiences are used to reinforce all algebraic concepts.

Prerequisite: Special Education Team Placement Meeting

Pythagorean Theorem, defining angles, perimeter, and areas of various geometric shapes will be continued.

Prerequisite: Special Education Team Placement Meeting

MATH 11

GRADES 9-12—S1/2

Students continue to build further knowledge from Math 10, and new algebraic concepts, such as polynomials, inequalities, geometry, and trigonometry are introduced. Hands on applications, utilizing compasses, transits, protractors are emphasized, while solving geometric concepts. Several realistic projects are introduced, allowing students to demonstrate their problem solving and mathematical skills.

Prerequisite: Special Education Team Placement Meeting

MATH 10

GRADES 9-12—S1/2

This course continues with the concepts of rational numbers, positive and negative exponents, problem solving, writing and evaluating written expressions, and working with equations. Students continue to build on earlier skills, working with single–two step word problems and gradually progress to solving multi-step algebraic problems, utilizing various strategies. Students are also introduced to solving and graphing linear equations, defining slope and y intercept, and mixed uniform rate work problems. Basic Geometry,

MATH 12

GRADES 9-12—S1/2

Students are provided with the skills to solve a variety of problems that demonstrate how mathematics is used in everyday life and in the business world. Topics include mathematics in: housing, automobile, insurance, taxes, payroll, and banking. These applications reinforce and extend the students' mastery of mathematical concepts.

Prerequisite: Special Education Team Placement Meeting

ENGLISH 9

GRADES 9-12—S1/2

This course is designed for freshmen who have difficulty with some area of communication skills. The purpose of this course is to increase students' knowledge of grammar, spelling, vocabulary and written expression. Novels, short stories, articles and student work are used to strengthen these skills.

Prerequisite: Special Education Team Placement Meeting

ENGLISH 10

GRADES 10-12—S1/2

This course is designed for sophomores who need continued skill development with emphasis on reading comprehension, writing, and other communication skills. Novels, short stories, articles and individual student work are used to strengthen these language arts areas.

Prerequisite: Special Education Team Placement Meeting

ENGLISH 11

GRADES 11-12—S1/2

This course is intended for juniors who need continued instruction in English skills for everyday living. Class projects, individual work, novels, short stories, and articles are used to improve communication skills. The class is conducted in a technology-enriched classroom where students will access computers and library materials to complete assignments.

Prerequisite: Special Education Team Placement Meeting

ENGLISH 12

GRADE 12—S1/2

This course will emphasize reading and comprehension skills and students will learn skills needed to become critical readers and writers. Students will also compile career portfolios that depict skills obtained inside and outside of the classroom. Topics will be introduced through group discussions, lectures, guest speakers, short stories and articles. Students are responsible for planning and implementing a pre-approved class lesson each semester.

Prerequisite: Special Education Team Placement Meeting

INDIVIDUALIZED READING

GRADES 9-12—S1/2

This elective course is designed to improve the wide scope of reading-related skills on the high school level. At the beginning of the school year, students are tested and their reading needs are determined. The curriculum is tailored to develop individual skills in the following areas: word recognition, word structure, vocabulary building, fluency, comprehension, reasoning ability, and study skills. Academic curriculum is based on Project Read, Orton-Gillingham and Wilson methodologies.

Course may be repeated with recommendation/approval of Guidance Director and Special Education Director.

Prerequisite: Special Education Team Placement meeting recommended

DECODING AND READING COMPREHENSION

GRADES 9-12—S1/2

This elective course is designed for those students who need continued development of their reading skills, with emphasis on decoding and reading comprehension. Course content includes different approaches to decoding and methods to help students comprehend what they read. Individualized

instruction, novels, short stories, articles and individual student work are used to strengthen basic reading skills. Vocabulary development is also stressed in this course. This course is appropriate for students whose reading ability is significantly below grade level.

Course may be repeated with recommendation/approval of Guidance Director and Special Education Director.

Prerequisite: Special Education Team Placement Meeting recommended

INFORMATION TECHNOLOGY AND ME

GRADES 9-12—S1/2

This course provides an overview of computers. Students will use programs that are needed for future courses taken in high school and in the world of work. Topics will include: basic computer operations and capabilities, key boarding, how to use Microsoft Office to fit personal and business needs, how to use the Internet/Worldwide Web for personal and business use, computer ethics, and careers. Sections will be offered to meet individual student needs with emphasis on developing a customized program to accommodate the requirements of the student.

This course fulfills the Computer Education requirement.

WORLD HISTORY 9

GRADES 9-12—S1/2

This course parallels the freshman World History curriculum, with consideration given to the individual differences in reading and writing abilities. Topics include Ancient Civilizations, Greece, Rome, the Middle Ages, the Renaissance, the French Revolution, and the World Wars. Classroom activities include such activities as journal writing, PowerPoint presentations, debates, and discussions.

Prerequisite: Special Education Team Placement Meeting

UNITED STATES HISTORY 10

GRADES 10-12—S1/2

This course parallels the sophomore United States History curriculum, with consideration given to individual differences in reading and writing abilities. Classroom activities include such activities as journal writing, PowerPoint presentations, debates, and discussions.

Prerequisite: Special Education Team Placement Meeting

CONSUMER ECONOMICS

GRADES 11-12—S1/S2

This course is designed to provide the student with an understanding of basic economics as it applies to managing a family. Students will explore the basic concepts of markets and prices, resources and scarcity, money, income, and interest, supply and demand, investment and credit. Through engaging simulation students will learn how to apply these concepts to managing a family and other important life skills involving personal finance.

Prerequisite: Special Education Team Placement Meeting

CIVIC RESPONSIBILITY

GRADES 11-12—S1/S2

This course is designed to introduce students to the methods and procedures used in our political process. The goal of the program is to provide practical experiences, which will develop the students' understanding and commitment to active citizenship and will give students the knowledge and skills required for effective community participation. Students will gain practical experience and develop an

understanding of the importance of citizen participation. This course will outline the public policy making process and the role of citizens in formulating public policy. An activity based program, the course will provide opportunities to investigate community problems and determine possible solutions. This program will add to students' knowledge, enhance their skills, and deepen their understanding of how we can work together to make our communities better.

Prerequisite: Special Education Team Placement Meeting

SCIENCE 9

GRADES 9-12—S1/2

This course, taught by a special education teacher, parallels the Freshman Science course. Topics in environmental science, energy, astronomy, chemistry, and physics make up most of the curriculum. The scientific method, metric measurement, Internet research, and computer applications are utilized throughout the year. Hands-on activities, paired laboratory experiments and small group discussions are an integral part of the course. An emphasis will be placed on improving reading and study skills.

Prerequisite: Special Education Team Placement Meeting

BIOLOGY 10

GRADES 10-12—S1/2

This course, taught by a special education teacher, parallels the Biology Concepts course. Topics covered include the scientific method, classification of living things, cells, basic human anatomy and physiology, diseases and disorders of the body systems with a focus on maintaining good health. These topics are covered in a hands-on, activity-oriented format with an emphasis on improving reading and study skills.

Prerequisite: Special Education Team Placement Meeting

ACADEMIC CORE

GRADES 9-12+ S1/2

The Academic Core's focus is to teach the functional applications of academic skills and provide various learning opportunities to practice these skills. The three period block provides flexible time spans for the completion of projects and hands-on learning. Communication and social skills as well as academic areas including Math, English, and Reading are integrated throughout the block. Functional skills taught

in the classroom will be real life with hands-on application of skills practiced outside the classroom and in the community

**Prerequisite: Special Education Team Placement Meeting/
Alternative diploma track**

OCCUPATIONAL PLANNING

GRADES 9-12+ S1/2

This course is designed to provide the students with life experiences beyond the academic domain and the conventional classroom. Emphasis is on skills to manage work and leisure, such as craft lessons, multi-step projects, and managing daily, weekly, and monthly schedules. The importance of planning, preparing, and sequencing skills is covered. In addition, students may explore careers. It is expected dexterity, fine motor skills, and eye-hand coordination be exercised.

**Prerequisite: Special Education Team Placement Meeting/
Alternative diploma track**

INDIVIDUALIZED MATHEMATICS

GRADES 9-12+ S1/2

This course offers a comprehensive coverage of mathematic skills needed for everyday living. Students will work on reinforcing math skills such as addition, subtraction, multiplication, and division of whole numbers, advanced money applications, calculator use, and time, including lapse time. Students will also be introduced to fractions, decimals, and percentages used in everyday life. Word problems will be incorporated in all areas.

**Prerequisite: Special Education Team Placement Meeting/
Alternative diploma track**

PROJECT WORK

GRADES 9-12+ S1/2

This course teaches students skills they will need when going into the work world; understanding and using a time card, following the routine of the job, arriving on time, taking breaks, prioritizing work, quality and quantity, etc. Some students will be introduced to a number of different work situations utilizing different departments/areas of the high school.

Prerequisite: Special Education Team Placement Meeting

TECHNOLOGY EDUCATION

Course Name	Semester	Grades	Prerequisite
Basic Video Production	S1/S2	10-12	
Video Production Lab	S1/S2	10-12	Basic Video Production and recommendation of instructor
Television Production	S1/S2	11	
Advanced Television Production	S1/S2	12	Television Production
Radio Broadcasting & Production	S1/S2	10-12	
Woodworking with Hand Tools	S1/S2	9-12	
Exploring Woodworking Skills	S1/S2	9-12	
Woodworking for Women	S1/S2	9-12	
Woodworking Technology	S1/S2	9-12	Exploring Woodworking Skills (suggested)
Advanced Woodworking Technology	S1/S2	10-12	Woodworking Technology
Exploring Metals	S1/S2	9-12	
Metals Technology	S1/S2	9-12	Exploring Metals
Advanced Metals	S1/S2	10-12	Metals Technology
Exploring Graphic Arts	S1/S2	9-12	
Computer Graphic Design	S1/S2	9-12	
Photography	S1/S2	10-12	
Advanced Photography	S2	11-12	Photography
College Prep Introduction to Engineering Design	S1/S2	9-12	Informal Algebra I or College Prep Algebra I (concurrent or previously taken)
College Prep Principles of Engineering	S1/S2	10-12	College Prep Introduction to Engineering Design
College Prep Digital Electronics	S1/S2	11-12	College Prep Principles of Engineering
College Prep Civil/Architectural Engineering Design	S1/S2	9-12	College Prep POE, or permission of instructor

BASIC VIDEO PRODUCTION

GRADES 10-12 —S1/S2

This course uses the element of production to foster the ability to clearly and concisely communicate ideas and information in various video formats. Along with these skills, emphasis is placed on cooperative working skills, accountability and quality craftsmanship. Students will learn to use storytelling, interview techniques and video formatting to create visual and audio messages. The history and application of freedom of expression, the history of video production, the technical aspects of television and television news broadcasting will also be explored. Students will be taught single camera techniques, field production and simple editing skills.

VIDEO PRODUCTION LAB

GRADES 10-12 —S1/2

This course is designed to use and expand on the skills students have learned in Basic Video Production. Students will learn the use of multiple cameras, professional editing software, special effects, animated graphics, and how to create their own video soundtracks. Various pieces will be produced including a short "Day in the Life" video, an interview, a video essay, and a news story. Students who take this class need to have mastered the skills taught in Basic Video, to be self-motivated, and be able to work independently and in group settings.

Prerequisite: Basic Video Production and written permission from Basic Video Production instructor.

TELEVISION PRODUCTION GRADE 11 —S1/2

This course is designed to introduce students to television production. It is expected that students who enroll in this course intend to complete a two year certificate program in television production. Curriculum includes studio and remote production, pre-production, post production, multimedia, critical viewing, and college and career exploration. Students will produce, direct, and rotate through all studio crew positions. Pre-production includes: planning/research, pre-interviewing, scripting, storyboarding, and interview techniques. Class is held at the Londonderry Access Center. Class size is limited. **Note: Double period**

Prerequisite: Application and interview with instructor required.

ADVANCED TELEVISION PRODUCTION

GRADE 12 —S1/2

Students who have successfully completed Television Production are encouraged to enroll in this course. The second year of the program is project-based, which will culminate in pieces for each student's resume videotape. Individual projects will include in-studio talk shows, a documentary, and public service announcements for local community organizations. Student productions may be cablecast on LEO21. The college application process and career exploration will be incorporated. A certificate of completion will be issued upon successful completion of the two year program.

Note: Double period

Prerequisite: Television Production

RADIO BROADCASTING & PRODUCTION

GRADES 10-12 —S1/2

This course will cover a brief overview of all aspects of radio broadcasting including the history of radio and radio technology, FCC rules and regulations, radio programming, writing for radio, on-air performance, interviewing techniques, audio production, and career options. Student productions will air on WLLQ-LP, the Londonderry School District's low-power FM radio station. This course may be repeated for credit with teacher approval. Advanced students will focus on producing programming for the station.

WOODWORKING WITH HAND TOOLS

GRADES 9-12—S1/2

This course is designed for the student who enjoys creating something entirely by hand. Students will learn how to use, sharpen and maintain different kinds of hand tools as they build a beautiful Windsor stool. Students will be learning techniques and methods used by master craftsmen over 100 years ago to hand make these beautiful stools. Other handmade projects may include such items as shaker oval boxes and hand carved signs. The only prerequisite for this class is a desire to build something challenging out of wood.

EXPLORING WOODWORKING SKILLS

GRADES 9-12 —S1/2

This course is designed for all students seeking a basic hands-on experience in Technology Education. Activities and projects will introduce the basic woodworking skills in managing a project activity from beginning to end. Topics will include the safe use and care of common hand and power tools, woodworking from plans, fasteners, assembly and finishing techniques, and wood products. Students will also have the opportunity to experience steam bending, scroll work, and using the wood lathe. This course is highly recommended for the college bound student who desires a practical woodworking experience in one semester. Students are strongly encouraged to take a CAD or design class before taking this course.

WOODWORKING FOR WOMEN

GRADES 9-12—S1/2

This one semester course is designed specifically for women. No previous woodworking experience is required. Students will learn woodworking skills and safety techniques necessary to create a variety of projects. Topics will include the safe use and care of common hand and power tools, woodworking from plans, assembly and finishing techniques, and wood products. Students will also have the opportunity to experience decorative treatments.

WOODWORKING TECHNOLOGY

GRADES 9-12 —S1/2

This course is designed for the student with high interest in dealing with the many areas of wood and woodworking technology. The relationship between the principles of woodworking and the basic skills of the industry will be studied. Emphasis is given to the principles of planning, proper use of tools and machines, industrial production, finishing techniques, safety, and career opportunities. **Suggested prerequisite: Exploring Woodworking Skills**

ADVANCED WOODWORKING TECHNOLOGY

GRADES 10-12 S1/2

This is a full year course that is designed for the student who is seriously interested in investigating opportunities in the woodworking industry. Students will explore the basics of cabinetwork through a series of activities that will result in an advanced level product (or series of products). Areas that will be covered include product design, aspects of cabinetwork and casework, assembly, finishing, lumber specifications, cost estimation, and careers in the woodworking industry.

Prerequisite: Woodworking Technology

EXPLORING METALS

GRADES 9-12—S1/2

This exploratory course is designed to give the beginning student an opportunity to explore the many areas of the metal working industry. Basic information such as the types and properties of metals, as well as measuring and layout, will be followed by activities including bending, forming, foundry, welding, and sheet metal fabrication. Career opportunities in the metal working industry will be investigated. Students are strongly encouraged to take a CAD or Design class before taking this course.

METALS TECHNOLOGY

GRADES 9-12—S1/2

This course is designed for the student with a sincere interest in the industry of metal manufacturing technologies. Emphasis will be given to skill development in bench working and the use of power and non-power tools. Areas of metal manufacturing such as welding, machining, forging, foundry, and sheet metal fabrication will be covered with a more in-depth approach. Exploration with the use of computer-assisted machine centers will be covered. Industrial practices of safety, design, and product development will be followed. Career opportunities will be investigated.

Prerequisite: Exploring Metals

ADVANCED METALS

GRADES 10-12—S1/2

This course is designed for the student who is seriously interested in the metals industry. Each student will be actively involved in an individual in-depth research project resulting in a self-developed activity or product. All students will be involved in an industrial production activity developed within the lab. Additional information will include technology of metals and their properties, precision machining techniques and measuring instruments, plus skills and knowledge designed by apprentices, technical schools and colleges. An independent project will be developed, designed, programmed, and manufactured using the computer numerically controlled machining center in the lab.

Prerequisite: Metals Technology

EXPLORING GRAPHIC ARTS

GRADES 9-12 S1/2

This exploratory course is designed to provide the beginning student an overview of the graphic arts processes, including the three basic principle processes: relief, intaglio, and stencil. Class instruction and activities utilize student interest and dictate project work. Career opportunities are explored.

COMPUTER GRAPHIC DESIGN

GRADES 9-12—S1/2

This course places emphasis on the role of computers in the printing industry. Students will experience and manage the process of taking an idea from a raw sketch and transforming it into a press-ready document using the technology of computerized printing as it exists today. Topics include, but are not limited to, page layout, cut and paste, and design, integrating text and graphics, borders, fonts, printing formats, editing techniques, and producing a flat from the mechanical. Related career opportunities will be discussed.

PHOTOGRAPHY

GRADES 10-12—S1/2

This course will introduce the student to the historical, practical, and industrial uses of photography. Lenses, developing chemicals, camera construction, film, paper and finishing techniques will be studied. Applications of the scientific aspects as well as hobby interest in photography are explored through related activities. This is a Project Running Start course.

ADVANCED PHOTOGRAPHY

GRADES 11-12—S2

This course is a continuation of Photography, with emphasis on studio work and the creation of a successful student's professional quality portfolio.

Prerequisite: Photography

COLLEGE PREP INTRODUCTION TO ENGINEERING DESIGN

GRADES 9-12—S1/2

This yearlong course is the first in our Project Lead the Way pathway. It is designed to teach problem-solving skills by using a design development process. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. Emphasis is placed on the development of a three-dimensional solid model. The techniques learned and the equipment used are state of the art and are currently being used by engineers throughout the United States.

This course is a Project Running Start course.

Prerequisite: Informal Algebra I or College Prep Algebra I (concurrent or previously taken)

COLLEGE PREP PRINCIPLES OF ENGINEERING

GRADES 10-12—S1/2

This yearlong course is the second course in the Project Lead the Way pathway. It is designed to help students understand the field of engineering/engineering technology. Students will explore various technology systems and manufacturing processes to help them learn how engineers and technicians use math, science, and technology to solve problems. The course includes concerns about the social and political consequences of technological change. Students will have the option of taking this course for honors or college prep credit. The instructor will present the honors option at the beginning of each semester.

Prerequisite: College Prep Introduction to Engineering Design

COLLEGE PREP DIGITAL ELECTRONICS

GRADES 11-12—S1/2

This yearlong course is the third course in the Project Lead the Way pathway. It is designed to build upon the skills students have learned in the previous Project Lead the Way courses. Digital Electronics is a course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software will be used to design and test digital circuitry prior to the actual construction of circuits and devices. Students will have the option of taking this course for honors or college prep credit. The instructor will present the honors option at the beginning of each semester.

Prerequisite: College Prep Introduction to Engineering Design and College Prep Principles of Engineering

COLLEGE PREP CIVIL/ARCHITECTURAL ENGINEERING DESIGN

GRADES 9-12—S1/2

This yearlong course is the fourth course (optional) in the Project Lead the way pathway and next in a series of engineering design classes. Students who have successfully completed Principles of Engineering and/or Architectural Design will build upon their skills and use them to solve structural and engineering design problems. The focus will be on using AutoCAD design products such as AutoCAD Revit Architecture to solve real life engineering problems. Community service projects may be included in the curriculum. Students will keep a design portfolio which may accompany their college and work applications and career options will be explored. **Prerequisite: College Prep Principles of Engineering, or permission of instructor**

SPECIAL PROGRAMS

Course Name	Semester	Grades	Prerequisite
College Prep Exploring the Art of Teaching	S1	11-12	
College Prep Practicing the Art of Teaching	S2	12	College Prep Exploring the Art of Teaching
Interactive Course Offerings	S1/S2		See below
School Store Aide	S1/S2	10-12	
Independent Study	S1/S2	11-12	
Career Exploration	S1/S2	10-11	
Student Internship	S1/S2	12	
MST Co-op	S1/S2	11-12	
Office Aide	S1/S2	10-12	

COLLEGE PREP EXPLORING THE ART OF TEACHING GRADES 11-12—S1

In the first Future Educators Academy (FEA) course, students will explore the art of teaching through classroom-based lessons coupled with school-to-career activities. Students will be evaluated on their attainment of skills, knowledge and experience and must achieve a final grade of 2.5 or higher to be recommended for the second FEA course. FEA students will “practice” teach a sample lesson plan and, as part of the self-assessment process, be videotaped. A reflective journal will be kept to document level of progress and resources needed to be a quality teacher.

COLLEGE PREP PRACTICING THE ART OF TEACHING GRADE 12—S2

In the second Future Educators Academy (FEA) course, students will practice the art of teaching. The content aligns with National Board Standards for Professional Teaching and offers contact hours in classroom-based instruction as well as supervised observation. The combination of the two FEA courses aligns with the Foundation of Education course taught through New Hampshire Community Technical College at Berlin, Claremont, Concord, Laconia, Manchester and Stratham. FEA students have the option to receive three college credits. Students will produce an FEA portfolio of documented evidence to include with their application to a Teacher Preparation Program. This is a Project Running Start course.

Prerequisite: College Prep Exploring the Art of Teaching

INTERACTIVE COURSE OFFERINGS

Interactive courses are designed for students who have an interest in working with the special needs population and would like to share their interest and knowledge in a specific content area in a hands-on environment. Mainstream students work with students who require special assistance. Students may help develop and facilitate units of study. These courses would be an excellent choice for students considering a career working with the special needs population or in education. Course descriptions for the following classes can be found under the specific department.

ART INTERACTIVE	ART
COMPUTER INTERACTIVE	BUSINESS & COMPUTER TECHNOLOGY
FOODS INTERACTIVE	FAMILY & CONSUMER SCIENCE
PE INTERACTIVE	PHYSICAL EDUCATION
SCIENCE INTERACTIVE	SCIENCE

SCHOOL STORE AIDE

Students currently enrolled in Marketing may apply to work in the school store during their assigned lunch/study period. Grading will be on a pass/fail basis. Application should be made to the teacher involved. Students may earn ¼ credit.

INDEPENDENT STUDY

GRADES 11-12 —S1/S2

Students interested in study extending beyond the scope of the curriculum in a creative or academic area may apply. Responsibility for planning, researching, executing, and evaluating each individualized program belongs to the student. Faculty consultants are available to assist students. Appropriate credit will be given at the completion of the project. Application for Independent Study should be made to the Guidance Director.

CAREER EXPLORATION

GRADES 10-11—S1/S2

This course introduces students to career exploration and practical workplace survival skills. Topics covered will be self-assessment, exploring career pathways, knowing the job market, preparing for a job search, job applications and resumes, interviewing skills, networking, workplace etiquette, team-building, conflict resolution and workplace safety.

STUDENT INTERNSHIP/SPECIAL PROGRAM

GRADE 12 —S1/2

Students interested in applying for an internship should meet the following criteria: 1) identified career interest, 2) able to commit a minimum of 7 hours/week or 80 hours per semester to an internship, 3) on target for graduation, 4) able to work independently. In addition to on-site work experience, students attend weekly class meetings, and complete a portfolio that will include weekly journal assignments, resume, career research project, mentor interview, mentor evaluations and final exam. Students must complete an application and interview prior to placement in an internship. Applications are available in House offices and in the School-to-Career Office. Internships are supervised by STC Coordinator.

MST CO-OP**GRADES 11-12 —S1/S2**

Co-op is, by design, a vocational work experience program. The work must be related to the student's course of study at MST. Students must apply for Co-op and meet the requirements of the MST program. Students must provide documentation at the beginning of the semester and submit final grades from MST at the end of the semester. Approval required from the Director of Guidance.

OFFICE AIDE**GRADES 10-12 —S1/S2**

Students interested in assisting the staff may apply to work as an office aide. Students will be responsible for completing basic clerical assignments. Applications should be made to the administrator involved. Students may earn ¼ credit.

CAREER & TECHNICAL EDUCATION (CTE) PROGRAMS

MST and ALVIRNE

The cooperative agreement between the Manchester and the Hudson School Districts provides Londonderry High School students with the opportunity to pursue additional CTE offerings. Students pursue academic offerings at Londonderry High School and travel to the Manchester School of Technology (MST) and Wilbur H. Palmer Vocational Technical Center, located at Alvirne High School for CTE classes only. The Londonderry School District provides transportation to and from both programs. These are both tuitioned programs which require daily attendance.

Application Procedures:

- Visit Main Guidance for program information and appropriate application forms.
- Present sophomores will attend an informational session on all CTE Programs. Those interested will be brought on a tour of the CTE center.
- Present juniors may request to attend, but are cautioned that acceptance is limited to available space and qualification requirements are more stringent.

The two-year program (Junior-Senior) meets two hours per day, five days per week. Afternoon sessions are available. For additional information, please visit Main Guidance.

Londonderry High School offers an array of technical courses which are described in the course offerings. In addition, juniors and seniors from Londonderry are eligible to participate in CTE programs at the **Manchester School of Technology (MST)**. MST recommends that students planning on enrolling in certain CTE programs at the center take preparatory courses. One full credit is assigned for each semester successfully completed.

PROGRAM	RECOMMENDED PREPARATORY COURSES
Advanced Manufacturing Technology	Two years of Industrial Arts, Business & Computer Technology
Collision Repair & Refinishing Technology	Two years of Technology Education
Auto Technology	Two years of Technology Education
Early Childhood Education	Parenting and Children
Residential Carpentry	Two years of Technology Education
Cosmetology	General Curriculum
Design Communication	Two years of Technology Education, Algebra I and Geometry
Electrical Technology	Two years of Technology Education
Culinary Arts	Introduction to Foods and Foods II
Health Science	Biology
Landscaping & Horticulture	Biology
Sports & Entertainment Marketing	Introduction to Business
Residential Plumbing	Two years of Technology Education
HVAC	Two years of Technology Education

The **Wilbur H. Palmer Vocational Technical Center**, located at Alvirne High School in Hudson, also offers programs that are open to sophomores, juniors and seniors at Londonderry High School. These programs are listed below with some recommendations for preparation. One full credit is assigned for each semester successfully completed. There are no driving privileges for students enrolled at the Palmer Vocational Center. All students must take the bus, provided by Londonderry School District, to and from the facility.

PROGRAM	RECOMMENDED PREPARATORY COURSES
Animal Production Technology	Biology
Floral Design /Horticulture Technology	Biology
Renewable Natural Resources/Forestry	Biology
Veterinary Technology	Biology
Diesel/ Heavy Equipment Technology	Two years of Technology Education

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STUDENT PLANNING WORKSHEET

Please refer to page 3 for additional information.

	GRADE 9	GRADE 10	GRADE 11	GRADE 12
ENGLISH (4 credits)				
MATH (3 credits) (to include an algebra credit)				
SOCIAL STUDIES (3 credits)	World History	US History	Civics Economics	
SCIENCE (2 credits)	Freshman Science	Biology		
HEALTH/PE (1.5 credits)	Health (one semester) PE I (one semester)	PE II Elective (one semester)		
COMPUTER (.5 credit) *The Computer Education requirement can be met through successful completion of the Londonderry Middle School Computer curriculum. Successful completion of the requirement at LMS does not gain high school credit.				
RESTRICTIVE ELECTIVE (Arts) (.5 credit)				
GENERAL ELECTIVES (9.5 credits) *Students who have fulfilled the Computer Education requirement must take an additional .5 credit.				
	6 credits	12 credits	18 credits	24 credits

