Willoughby-Eastlake City Schools

High School

CEEB CODE
To be used for Standardized Testing and College Applications.

North – 362-022
South – 365-574

COURSE SELECTION GUIDE
2015 – 2016

District Goal: Improve Student Achievement
Students First • Quality Instruction • Time On Task

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Mr. Steve Thompson, Superintendent
Mr. Charles Murphy, Asst. Superintendent
Ms. Gina Kevern, Director of Curriculum
Mrs. Eileen Bowers, Director of Pupil Services
Mr. Patrick McKinney, Director of Technology

Board of Education
Regular Meetings
2nd Monday of the Month

Paul Brickner, Member
Connie Newyear, Vice President
Sharon Scott, Member
Margaret Warner, President
Amy Zuren, Member

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GENERAL INFORMATION

School Day

- A High School day consists of an eight (8) period day with lunch included.
- The Career Academy school day is divided into blocks of time depending upon the particular career and technical education program. Lunch is provided at the home high school.

Attendance

- Attendance and punctuality are the responsibility of the student and parent(s)/guardian(s).
- By state law, regular attendance is mandatory for all students.
- When a student is absent, a parent/guardian is required to notify the school as early in the day as possible. If a call is not received, a note (signed by the parent/guardian) excusing the student is required. A statement stating the reason for the absence must be included.

Minimum Course Load

Students must take between 5.50 and 6.00 units of credit each school year to ensure meeting the requirement of 21.5 credits necessary for graduation.

- Both required and elective courses must equal the 21.5 credit count. Students are strongly encouraged to take additional credits each year.
- Recommended maximum credits per year are 6.00**.**
- Students who are involved in athletics are responsible for checking that they are scheduled for at least five credits each semester.

Class Standing

- To achieve sophomore, junior, or senior class standing, students should have earned the minimum number of credits indicated below:

    - Sophomore Class 5 credits accumulated
    - Junior Class 10 credits accumulated
    - Senior Class 15 credits accumulated

- If a student is in his/her fourth year of high school and is enrolled in a sufficient number of courses so that passing all of those courses would give that student sufficient credits to graduate, that student will be classified as a senior and become a candidate for graduation.

- All Willoughby-Eastlake courses required for graduation are aligned to the Ohio Department of Education's New Learning Standards and College and Career Readiness Standards which are available online at: http://1.usa.gov/1BDvq3w

Graduation Requirements

For the 2015-2016 school year, all students must complete 21.5 units of high school credit in grades 8 through 12 and pass all statewide assessments as required by the Ohio Department of Education.

These units must include:

Graduating Classes of 2016 and 2017

English	4 Credits	
Mathematics	4 Credits	Must include Algebra II or its equivalent
Social Studies	3 Credits	Must include American History, American Government
Science	3 Credits	Must include one unit of Physical Science, one unit of Life Science, and one unit of Advanced Study in one or more of the following Sciences: Chemistry, Physics or other Physical Science, Advanced Biology or other Life Science, and Astronomy
Health	1/2 Credit	
Physical Education	1/2 Credit	A student who participates in interscholastic athletics, marching band, or cheerleading for at least 2 full seasons may substitute a different 1/2 credit class in any subject for PE credit
Computer Science	1/2 Credit	
Electives	6 Credits	**Elective credits must include one or any combination of: • World (Foreign) Language • Fine Arts, Business • Career-Technical Education • Family and Consumer Sciences • Junior ROTC Programs • Technology • Agricultural Education or English Language Arts • Mathematics, Science or Social Studies courses not otherwise required • Students must complete at least 2 semesters of Fine Arts taken any time in grades 7-12. • Students enrolled in a "Career-Technical track"- interpreted by the ODE as a minimum of one credit or one year in coursework representing coherent sequential Career-Technical content - are exempt from the Fine Arts requirement.

GRADUATION REQUIREMENTS 2018 and Beyond Graduates

The new graduation requirements require all students to:

- Complete Ohio Course Requirements (see previous page)
- Take Next Generation Assessments in:
    - Algebra I, Geometry, English I, English II, Physical Science, American History, and American Government
- Meet one of three pathways:

1. Earn a cumulative passing score of 18 points on the seven (7) end of course of exams. Points are earned as follows:

Advanced Level	5 points
Accelerated Level	4 points
Proficient Level	3 points
Basic Level	2 points
Limited Level	1 point

Of these overall points, a student must earn a minimum of 4 points between the math exams, 4 points between the English exams, and 6 points among the science and social studies exams. In order to obtain 18 points students will have to score above the minimum on several end of course exams.

2. Earn a remediation-free score on the ACT or SAT

ACT			SAT	
English	18		Critical Reading	450
Mathematics	22		Writing	430
Reading	21		Mathematics	520
Science	TBD		Reading	450

3. Earn a State Board of Education approved, industry-recognized credential

The State Board approved the list of industry credentials a student may use to qualify for a diploma. Earning an approved industry credential and achieving a workforce readiness score on a corresponding job skills test, such as the WorkKeys assessment, is a pathway to a diploma. All credentials must be tied to jobs that are in demand, either statewide or locally. A student can use any credential for graduation that appears on the list during the student's junior year, even if that credential comes off the list during the senior year. A student may always use new credentials added to the list after his or her junior year.

Pass/Fail Courses

- As per W-E Board policy, a student may enroll in a course on a pass/fail basis only when the course is not a requirement for graduation.
- The decision to take a course on a pass/fail basis should be made before the course begins. No more than one course may be taken under pass/fail each semester.
- Pass/fail courses do not count in the cumulative Grade Point Average (GPA).
- The pass/fail course will count for credit in the 21.5 credits needed for graduation, and quarterly grades will appear on the report card which will indicate the student's progress on the A through F scale.
- The A through F scale will be converted to a pass (P) or fail (F) in the final grade.

Report Cards

- Report cards are issued each quarter, which spans approximately nine weeks.
- Parents/guardians may access grades and attendance through PowerSchool
    - https://pschool.weschools.org/public/

Schedule Change Procedures

- Insufficient enrollment may cause the cancellation of specific classes or scheduling conflicts and may require the student to be placed in his/her alternate course requests.
- A minimum enrollment is required for a course to be scheduled.
- When a course is dropped for any reason other than those noted below, a grade of "F" will be reported.
- Withdrawal and subsequent placement in a different course will be a limited occurrence and will be an administrative decision.
- Any questions about schedules should be addressed to the appropriate guidance counselor within the first seven (7) days of each semester.

Reasons for Schedule Changes

- Missing a required subject,
- Scheduled for less than 5.5 credits,
- Missing lunch,
- Short credits for eligibility,
- Short credits to meet graduation requirements if the student is a senior,
- Medical necessity as verified by a physician's statement,
- Administrative decisions to balance class size and/or to resolve schedule conflicts and to otherwise meet the needs of individual students under extraordinary circumstances.

Accelerated Students

- In 2006, The Ohio Department of Education passed a new resolution #3324.10 (part of House Bill 66) which now allows an accelerated student to apply for "early graduation" if the student has met all of the state and Willoughby-Eastlake district's requirements for graduation.
    - Student must also pass all statewide tests required by ODE.
    - Any student meeting all the criteria for early graduation must state his/her intention in writing to the Guidance Office before the second semester of Grade 11.
    - Students who opt for early graduation are not eligible to take CCP classes after they graduate.

Honors Diploma

The Ohio State Board of Education has established a Diploma with Honors. Students must meet the following criteria:

- The student who completes the high school academic curriculum shall meet at least seven of the following eight criteria:

    - Earn four units of English;
    - Earn at least four units of Mathematics which shall include Algebra I, Algebra II, Geometry and another higher level course or a four-year sequence of courses which contains equivalent content;
    - Earn at least four units of Science including one unit of Physics and one unit of Chemistry;
    - Earn four units of Social Studies;
    - Earn three units of a World (Foreign) Language (must include no less than two units for which credit is sought), i.e., three units of one language or two units each of two languages;
    - Earn one unit of Fine Arts;
    - Maintain an overall high school grade point average of at least 3.5 on a four-point scale up to the last grading period of the senior year; or
    - Obtain a composite score of 27 on the American College Test's (ACT) assessment (excluding the optional writing test) or a combined score of 1210 on the College Board's SAT verbal and mathematics sections (excluding the required writing section).

- Beginning with the graduating class of 2012, the student who completes an intensive Career-Technical education curriculum shall meet at least seven of the following eight criteria:

    1. Earn four units of English;
    2. Earn at least four units of Mathematics which shall include Algebra I, Algebra II, Geometry and another higher level course, or a four-year sequence of courses which contains equivalent content;
    3. Earn at least four units of Science, including two advanced sciences;

4. Earn four units of Social Studies;
5. Earn four units in a Career-Technical education program that leads to an industry-recognized credential, results in an apprenticeship or is part of an articulated career pathway which can lead to post-secondary credit. If the student's program design does not provide for any of these outcomes, then the student must achieve the proficiency benchmark established for the applicable Ohio career-technical competency assessment or the equivalent;
6. Achieve the proficiency benchmark established for the Ohio Career-Technical Competency Assessment (available at http://www.webxam.org/info_docs.asp) or equivalent assessment aligned with state-approved and industry validated technical standards;
7. Maintain an overall high school grade point average of at least 3.5 on a 4.0 scale up to the last grading period of the senior year; or
8. Obtain a composite score of 27 on the American College Testing Service's (ACT) assessment (excluding the optional writing test) or a combined score of 1210 on the College Board's SAT verbal and mathematics sections (excluding the score obtained on the required writing section).

Eligibility for Participation in Activities

- All students in Grades 6 through 12 who wish to participate in school activities must meet a minimum required grade point average of 2.0. "Activities" have two traits:
    - They are not required as part of a student's academic program, and
    - A paid advisor is employed.
- Student's eligibility for participation shall be based on his/her grade point average by the immediately preceding grading period.

OHSAA Guidelines for Grades 7 – 12

- To be eligible, a passing grade in five (5) one-credit subjects or five credits collectively each grading period is mandatory.
- For all students, eligibility for the first grading period of a school year is determined by the fourth grading period grades from the previous school year.
- No summer school grades or credits can change eligibility.

District Guidelines for Grading Period

- Students with an average of 2.0 or higher at the beginning of each grading period, and who meet all other requirements of the (OHSAA) standards, shall be fully eligible for participation.

- No probationary period is permitted for a student who does not meet the standards of the OHSAA which states that a student must pass the equivalent of 5 credits the preceding 9 weeks to be eligible the following 9 weeks.
    - An ineligible student under this rule shall remain ineligible until the fifth school day after the end of the next grading period.

Career and Technical Education Programs

- These programs may not be dropped.
- These state-funded programs are staffed on the basis of student enrollment; enrollment must remain firm to maintain eligibility for state funds.
- If a student has been accepted into a career and technical education program and has made a commitment, the student must remain in the program for at least one school year.

National Testing Programs

Participation in the following tests is highly recommended for students considering post high school education:

- **PSAT/NMSQT**
  - Administered to all students in Grades 10 and 11 **at no cost to the students**
  - Preliminary Scholastic Aptitude Test / National Merit Scholarship Qualifying Test (ONLY 11th grade scores considered for this) - October 2015
- **ACT** (American College Test)
  - All CCP and Juniors should take this test in the spring.
- **SAT** (Scholastic Aptitude Test)
  - Juniors should take this test in the spring.
- Both the ACT and the SAT may be taken more than once. Seniors who have not taken the tests in their junior year should take the tests in the fall of the senior year.
  - Registration may be done online
  - Important to note registration deadline in order to avoid paying a late fee.
  - Fee waivers may be available to students based upon financial need.
    - **SAT Waiver information: http://bit.ly/1xxUjfO**
    - **ACT waiver information: http://bit.ly/1yCbaw**

ACT Test Dates	SAT Test Dates
September 12, 2015	**October 3, 2015**
October 24, 2015	**November 7, 2015**
December 12, 2015	**December 5, 2015**
February 6, 2016	***January 23, 2016**
April 9, 2016	**March 5, 2016**
June 11, 2016	**May 7, 2016**
	June 4, 2016

*January 23, 2016 SAT will be administered at South High School

Grading Scales

AP and CCP Scale:
A = 5 points
B = 4 points
C = 3 points
D = 2 points
F = 0 points

Honors Scale:
A = 4.5 points
B = 3.5 points
C = 2.5 points
D = 1.5 points
F = 0 points

General Scale:
A = 4 points
B = 3 points
C = 2 points
D = 1 point
F = 0 points

Advanced Placement

- Advanced Placement courses offer students the opportunity to complete college-level studies at the high school level.
- All students enrolled in an AP course will be required to take the nationally administered AP exam in May.
- Students will be assessed a fee ($91/$36.40 reduced rate) to cover the cost of their first AP course exam per school year.
    - The fee is established by the College Board and is subject to change. It will be assessed as part of the annual student fee statement.
    - The student is only responsible for one AP exam fee. If a student takes five (5) AP exams in one school year, he/she will only have to pay for one (1) exam.
- A student who is successful on the AP examination(s) may enter college with some college credits already completed.
    - Most colleges and universities in Ohio accept a score of "3" or above in order to receive college credit. Check specific college/university for requirements.
    - An AP Grade Report is sent in early July to each student, school, and, if the student so requested, to his or her college.

Independent Study

- Independent Study projects designed to duplicate courses in the regular program of instruction will not be approved since it is the intent of the State Minimum Standards that these courses shall supplement, not replace, group instructional processes.
- Exception to this rule may be made when a course needed for graduation is not available to a student and when such an exception is approved by the building principal.
- Consult with a guidance counselor for the necessary application forms and further information.

Credit Flexibility

Credit Flexibility is designed to broaden the scope of curricular options available to students, increase the depth of study available for a particular subject, and tailor the learning time or conditions needed to complete a high school diploma. Student may earn credits through:

- Completing coursework in the traditional setting
- Testing out or showing mastery of course content
- Pursuing educational options such as online coursework, independent study, internships, service learning, research-based projects, CCP college – high school programs, distance learning, educational travel

Applications for Credit Flexibility options are available within each Guidance Office and via the district website. For more information, please contact the current (or receiving) guidance counselor.

College Credit Plus

- College Credit Plus replaces Ohio's Post-Secondary Enrollment Option program
- CCP was established as a way for high school students to earn credits through institutions of higher education.
- Qualified high school students may experience coursework at a college or university level while still in high school.
- A student admitted to a course by an institution of higher education will be expected and required to perform at the same level as the institution's regular students.

College Credit Plus Requirements

- Student must be enrolled in both college and high school
    - Student to earn transcripted college and high school credit upon successful completion of course
- Attend one (1) of the CCP programs provided by the district
- Must meet college requirements for entrance
- Complete the CCP "Intent to Participate" form prior to April 1, 2015
- Receive an eligibility score on the ACT, SAT, or Compass per the chart below:

Readiness Area	ACT	SAT	Compass
English	18	430 Writing OR 450 Critical Reading	1110
Mathematics	21	500	950

College Credit Plus Benefits

- Students can take courses not offered in the high school and/or take more advanced courses
- Provides opportunities for students to study "in-depth" areas of special interest or need
- Allows students to receive both high school and college credit while still in high school
- Reduces college costs while earning high school and college credit
- Students experience college-level work/life prior to making final decisions for the future

College Credit Plus Risks

- Possible effect on GPA and class standing if the course is not completed successfully
- Increases time for travel (student's responsibility) to and from school, study, etc.
- CCP students may be enrolled in courses with adult students
- Grade reporting periods for colleges are often quite different from those for high schools. This can cause problems when calculating GPA
- Financial obligations become the parent/student's responsibility if the student is withdrawn from the class after the identified grace period or if the student fails the class
- Vacation days at the home school and the CCP school may not coincide. CCP classes may be in session while the home school is on vacation

College Credit Plus Grading

- Any disputes between students and local boards of education regarding high school credits granted for college work may be appealed to the State Board of Education whose decision is final.
- Student records must reflect evidence of successful completion of each course for high school credit to be awarded.
- The student's permanent record shall indicate the college and the courses taken for high school credit and the number of credits to be awarded.
- The student shall provide a copy of the college's notice of grade given for any course taken for high school credit.
- The grade shall be included in the calculation of the student's total grade point average as though the course were being taken in high school.
- A course taken for "pass/fail" shall indicate whether the student passed or failed but shall not be considered in calculating the student's grade point average.
- CCP courses offered on the high school campus and/or college/university campus are weighted the same as advanced placement courses which are on a five (5) point scale per Ohio Statute.

College Credit Plus (CCP) Sample Pathways
Operating in conjunction with Lakeland Community College

Pathway 1

19 semester hours total (this pathway may be available at home high school)
Algebra 2 must be completed at the high school prior to taking MATH

FALL
ENGL 1110 Composition 1 (3 semester hours)
POLS 1300 US National Government (3 semester hours)
MATH 1650 College Algebra (4 semester hours)

SPRING
ENGL 1120 Composition 2 (3 semester hours)
POLS 2100 State and Local Government (3 semester hours)
MATH 1700 Trigonometry (3 semester hours)

Pathway 2

30 semester hours total (this pathway may be available at home high school)
Algebra 2 must be completed at the high school prior to taking MATH

FALL (Junior Year)
ENGL 1110 Composition 1 (3 semester hours)
POLS 1300 US National Government (3 semester hours)
MATH 1650 College Algebra (4 semester hours)

SPRING (Junior Year)
ENGL 1120 Composition 2 (3 semester hours – **Prerequisite: ENGL 1110 or placement test)**
POLS 2100 State and Local Government (3 semester hours)
MATH 1700 Trigonometry (3 semester hours – **Prerequisite: MATH 1650 or placement test)**

FALL (Senior Year)
POLS 2200 Intro to International Relations (2 semester hours)
MATH 2350 Applied Calculus 1 (3 semester hours – **Prerequisite: MATH 1650 or permission)

SPRING (Senior Year)
**POLS 2300 Intro to Comparative Politics (3 semester hours)
MATH 2450 Applied Calculus 2 (3 semester hours – **Prerequisite: MATH 2350)

****These courses are only offered on Lakeland Community College campus.**

Pathway 3

30 semester hours total
Designed for the senior who has completed high school required courses

General Courses
PSYC 1500 Intro to Psychology (3 semester hours)
SOCY 1150 Principles of Sociology (3 semester hours)
HUMX 1100 Intro to Humanities (3 semester hours)
COMM 1000 Effective Public Speaking (3 semester hours)
ECON 1150 Basic Economics (3 semester hours)

+

Math Sequence (select one)
MATH 1650 College Algebra /1700 Trigonometry (7 semester hours total)
MATH 1550 Statistics /1650 College Algebra (8 semester hours total)

+

Science Sequence (select one)
***Non-Science Majors (7 – 8 semester hours total)**
GEOL 1100 Intro to Physical Geology or GEOL 1200 Intro to Historical Geology (4 semester hours each)
PHYS 1500 Astronomy (4 semester hours)
BIOL 1140 Human Biology (3 semester hours)
BIOL 1010 Intro to Bio 1 or BIO 1020 Intro to Bio 2 or BIO 1030 Environmental Issues (3 semester hours each)
CHEM 1100 Elementary Chemistry (4 semester hours)

***Science Majors (8 – 10 semester hours total)**
BIOL 1510 Principles of Bio 1 & 1520 Principles of Bio 2 (8 semester hours total)
CHEM 1500 General Chemistry* & 1600 General Chemistry 2 (10 semester hours total)
PHYS 1610 General Physics 1** & 1620 General Physics 2 (10 semester hours total)

***Prerequisites: HS Chemistry, Math 1650 (can be taken concurrently) or placement test into Math 1700**

****Prerequisite: Math 1650 or permission**

Seniors are encouraged to consult the Lakeland Advisor if they are interested in completing the first year of their Associate's Degree.

COURSE OFFERINGS

ACADEMIC DECATHLON

Grades 9 - 12	
	1110 Academic Decathlon (1 credit)

1110 Academic Decathlon

This course is a national competition that requires students to master seven academic subjects (math, literature, music, art, economics, science, and history), as well as to deliver prepared and impromptu speeches, to undergo an interview, and to write an essay connected to their studies. Academic Decathlon's curriculum changes each year and is centered on a theme. All of the academic areas, except math, are related to the thematic focus. The curriculum forces students to study several subjects in-depth and in detail, and will expand reading, writing, math, and public speaking skills. Although the team consists of three "A" students, three "B" students, and three "C" students as determined by GPA, the class is open to all interested students in the building. Course meets for 1 period, all year.

BUSINESS COURSES

Grade 9	
	5301 Personal Finance (½ credit) 5500 Introduction to Business (½ credit) 5411 Keyboarding & Document Formatting (½ credit) 5412 Business Communication Information Technology (½ credit)
Grade 10	
	5301 Personal Finance (½ credit) 5500 Introduction to Business (½ credit) 5411 Keyboarding & Document Formatting (½ credit) 5412 Business Communication Information Technology (½ credit) 5502 Accounting (1 credit) 5503 Entrepreneurship (½ credit) 5505 Business Law (½ credit) 5506 International Business (½ credit)
Grades 11-12	
	5301 Personal Finance (½ credit) 5500 Introduction to Business (½ credit) 5411 Keyboarding & Document Formatting (½ credit) 5412 Business Communication Information Technology (½ credit) 5502 Accounting (1 credit) 5503 Entrepreneurship (½ credit) 5505 Business Law (½ credit) 5506 International Business (½ credit)

5301 Personal Finance
This course focuses on all aspects of money management. Students will learn about banking, checking, savings, credit cards, consumerism, investing, budgeting, insurance, how to complete their own taxes, and planning for long-term financial management. Students will explore possible careers and how choices made in their everyday lives contribute to their financial situations. It will provide hands-on instruction and involve guest speakers from the community.

5411 Keyboarding & Document Formatting
Keyboarding is a course in touch-typing with emphasis placed on correct technique, speed building and word processing skills. Using Microsoft Word, students will learn how to prepare short and multi-page reports, outlines, and personal business letters in addition to other features of MS Word. **Fee Required**

5412 Business Communication Information Technology
Students will learn to create advanced business documentation using MS Word and following MOUS certification criteria as well as to develop skills for various business situations.
Fee Required

5502 Accounting
This course highlights the fundamental principles and concepts that apply to everyday modern business and finance. It emphasizes the complete accounting cycle for a sole proprietorship and corporate accounting. Students will learn to analyze, journalize and post business transactions and to prepare and analyze financial statements. This course also includes computer-based simulation projects at the end of each semester. It is an excellent preparation for entry-level jobs and is highly recommended for students planning to study or major in business at a college or university.

5503 Entrepreneurship
This course actively involves the student in how to start a business, select and market a product/service, acquire financing, hire a staff, and write a successful business plan. Students will have the opportunity to form a class business and market and sell a product to the school. It will provide hands-on instruction and involve guest speakers from the community.

5505 Business Law
Business Law deals with issues that are essential in forming/running a business, such as engaging in contracts, buying on credit, preparing a will/trust, employment/labor law, and unions. Students will explore many important social and ethical issues relating to their daily personal and professional lives.

5506 International Business

This course will expose students to the many components of global business operations. Students will be able to understand and demonstrate the basics of international business, why it is important, and how global economics is essential to global business success in addition to an understanding of international cultures, customs, and geography, and to political, legal and ethical business practices. Students will also be exposed to the possible career choices and opportunities that exist in today's global market.

5500 Introduction to Business

Students will be exposed to many areas of business which will enable them to demonstrate knowledge of business terms and concepts, economic principles, entrepreneurial skills, business communications, accounting, management of human resources, basic marketing concepts, business law, international business, financial literacy, and current events related to business. It will allow students to browse and select other business courses that may interest them after having previewed all aspects of business through Introduction to Business.

COMPUTER COURSES

Grade 9	*All ½ credit
	3900 Computer Science I 3901 Computer Science II 3902 Programming 3904 HTML Web/JavaScript 3907 Computer Aided Design 2D -3D
Grade 10	*All ½ credit
	3900 Computer Science I 3901 Computer Science II 3902 Programming 3903 Multimedia Communications 3904 HTML Web/JavaScript 3907 Computer Aided Design 2D -3D
Grades 11-12	
	3900 Computer Science I (½ credit) 3901 Computer Science II (½ credit) 3902 Programming (½ credit) 3903 Multimedia Communications (½ credit) 3904 HTML Web/JavaScript (½ credit) 3905 Honors Computer Science (1 credit) 3907 Computer Aided Design 2D -3D (½ credit)

3900 Computer Science I
An introduction to the use of computers, basic programming, and several software applications. **Fee Required**

3901 Computer Science II
Students will expand computer application skills in word processing, database, spreadsheets, presentations, and internet use. **Prerequisite: Computer Science I. Fee Required**

3902 Programming
The student will learn program design and logic skills. Current programming languages will be used**. Prerequisite: Computer Science I. Fee Required**

3903 Multimedia
The student will explore the concepts of combining two or more forms of media into one project. Examples of applications include animation, presentation software, video software and sound-editing software**. Prerequisite: Computer Science I and one other course. Fee Required**

3904 HTML and JavaScript
The student will explore the fundamental concepts and structure of web page and site design using HTML codes and tags. JavaScript will be used to enhance pages.
Prerequisite: Computer Science I. Fee Required

3905 Honors Computer Science
Honors Computer Science is a year-long college level course intended to serve both as an introductory course for computer science majors-to-be and as a course for students who will major in other disciplines that require significant involvement with technology.
Prerequisites: Algebra II and Computer Science I with an A or B or completion of Programming. Fee Required

3907 Computer Aided Design 2D – 3D
CAD is a course in which students will express themselves visually and will be able to showcase their creativity. The CAD course will be directed toward the development of industry standard skills. **Prerequisite: Computer Science I. Fee Required**

ENGLISH COURSES

	College Prep *All 1 Credit	Honors/AP *All 1 Credit	Electives *All ½ Credit
Grade 9			
	0301 English I	0310 English I Honors	0510 Publications
Grade 10			
	0401 English II	0421 English II Honors	0500 Speech/ Oral Interpretation 0510 Publications 0511 Drama/Theater
Grade 11			
	0522 English III	0531 English III Honors 0532 AP English Language and Composition	0500 Speech/ Oral Interpretation 0510 Publications 0511 Drama/Theater 0613&0614 Writing for College 0800 ACT/SAT Prep
Grade 12			
	0622 English IV	0631 English IV Honors 0621 AP English Literature and Composition	0500 Speech/Oral Interpretation 0510 Publications 0511 Drama/Theater 0613&0614 Writing for College 0800 ACT/SAT Prep

0301 English I

This course is the study of various non-fiction and fiction selections within the five genres of literature: short stories, novels, plays, epics, and poetry. The course is designed to foster an appreciation for the readings as well as to study the fundamentals of composition. There will also be a focus on literary devices, vocabulary, grammar, research, and oral communication. There is a summer reading requirement for this course, and students will be required to purchase novels.

0310 English I Honors

This course is the study of fiction and non-fiction selections within the five genres of literature, focusing on composition, vocabulary, grammar, research, and oral communication, as do all English I courses. The honors course, however, is both accelerated and enriched with regard to content, thus covering more material with more depth. In addition, students are expected to demonstrate in their writing a greater degree of sophistication in content and style. Moreover, students are expected to work independently and to be motivated intrinsically. There is a summer reading requirement for this course, and students will be required to purchase novels.

0401 English II

English II continues to focus upon all language skills with an emphasis on the appreciation of non-fiction and fiction through the various genres of literature. There will be an emphasis on the use of literary devices, vocabulary, grammar, research, and oral communication with the goal of improving writing and editing skills. Composition centers on the development of the basic forms of writing concentrating on developing clearly organized and well- developed multi-paragraph compositions. There is a summer reading requirement for this course, and students will be required to purchase novels.

0421 English II Honors

English II Honors continues to focus upon all language skills with an emphasis on the appreciation of non-fiction and fiction through the various genres of literature as do all English II courses. There will be an emphasis on literary devices, vocabulary, grammar, research, and oral communication with the goal of improving writing and editing skills. Composition writing centers on developing clearly organized and well- developed multi-paragraph compositions. The honors course, however, proceeds at an accelerated pace and is enriched with regard to content, thus covering more material with more depth. Greater independence is expected of the students in their evaluation of literature. In addition, students are expected to demonstrate a greater degree of sophistication in content and style in their writing. There is a summer reading requirement for this course, and students will be required to purchase novels.

0522 English III American Literature

English III American Literature is the chronological study of American literature. This course spans a wide range of material beginning in the 1600's and concluding with contemporary authors. Students study prominent authors of each literary period with emphasis on significant contributions and historical context of works. There is continued focus on understanding literary devices, expanding vocabulary skills, using proper grammar, conducting research, and preparing oral presentations with the goal of improving writing and revision skills. Communication skills will be refined through discussion and cooperative group activities. There is a summer reading requirement for this course, and students will be required to purchase novels.

0531 English III Honors American Literature

English III Honors American Literature continues to concentrate on all language skills with an emphasis on the appreciation of American literature, its authors, and the historical influences of the time periods, as do all English III courses. There will be continued focus on understanding literary devices, expanding vocabulary skills, using proper grammar, conducting research, and preparing oral presentations with the goal of improving writing and revision skills. Communication skills are refined through whole class and group discussions along with cooperative group activities. The honors course, however, proceeds at an accelerated pace and is enhanced with regard to content, thus covering material more extensively. In addition, students are expected to exhibit a greater degree of complexity through their compositions and analysis of American literature. There is a summer reading requirement for this course, and students will be required to purchase novels.

0622 English IV British Literature

English IV British Literature is a chronological survey of British literature. Emphasis is placed upon the significant literary works and styles of each era. The lives of writers and the historical backgrounds of literary periods are also studied, as well as the history of the English language. The students' vocabulary is enriched through applied literary study, emphasizing understanding of word meanings rather than rote memorization of definitions. In addition, language study is targeted through the review of grammar, usage, and mechanics and their application to the writing process. Communication skills will be advanced through whole class and small group discussions, individual presentations, and cooperative group activities. Additional reading selections will include non- fiction material that will be used while conducting research for a project. There is a summer reading requirement for this course, and students will be required to purchase novels.

0631 English IV Honors British Literature

English IV British Literature is a chronological survey of British literature. Emphasis is placed upon the significant literary works and styles of each era. The lives of writers and the historical backgrounds of literary periods are also studied, as well as the history of the English language. The students' vocabulary is enriched through applied literary study, emphasizing understanding of word meanings rather than rote memorization of definitions. In addition, language study is targeted through the review of grammar, usage, and mechanics and their application to the writing process. Communication skills will be advanced through whole class and small group discussions, individual presentations, and cooperative group activities. Additional reading selections will include non- fiction material that will be used while conducting research for a project. The honors course, however, proceeds at an accelerated pace, and is enhanced with regard to content, thus covering material more extensively. In addition, students are expected to exhibit a greater degree of complexity through their compositions and analysis of British literature. Additionally, students are expected to be extremely motivated and are expected to work independently, in and outside of the course. There is a summer reading requirement for this course, and students will be required to purchase novels.

0532 AP English Language and Composition

With recommendations from and the approval of the College Board, the Advanced Placement English Language and Composition course work models a college composition class. The curriculum concentrates on argumentation: how to analyze the rhetoric employed by writers and speakers, how to construct successful arguments which synthesize accredited sources, and how to compose successful arguments that draw on personal knowledge and experiences. Promoting an awareness of current events and history, particularly American history, the coursework places a greater emphasis on non-fiction than fiction and analyzes fiction for arguments made by the author. There is a summer reading requirement for this course, and students will be required to purchase novels.

0621 AP English Literature and Composition

With recommendations from and the approval of the College Board, the Advanced Placement English Literature and Composition course is a college-level literature and composition class. The curriculum involves both the study and practice of writing and the study of literature. Composition study will encompass the modes of discourse, rhetorical strategies and argumentation, critical analysis of literature, and exposition. The study of literature will include a mix of world, English, and American literature. There is a summer reading requirement for this course, and students will be required to purchase novels.

0500 Speech/Oral Interpretation

Communications is a course that introduces students to various facets of communication skills. This course will include public speaking, media literacy, and copywriting intended for publication. Public address and research skills will be used along with technology and software-based applications for presentation purposes. Students in this course will be expected to use the writing process to produce speech outlines and drafts and to develop technical writing. Students gain confidence and poise through class presentations. Computer-based research skills are honed and the writing process is included.

0613 Writing for College I, 0614 Writing for College II

These courses offer the college bound student daily opportunities to practice various forms of prose required in college classes. Illustration, narration, description, process, definition, comparison and contrast, classification, cause and effect, and persuasive writing methods are the primary focus. Students will learn to use all of the methods within the framework of the writing process. This course continues the development of good writing techniques and writing across the curriculum. Research techniques and conduction of research will prove to be valuable skills in college. A research paper is required. A review of college applications and the writing of college essays will be included in the fall. A review of scholarship opportunities and the writing of scholarship essays will be included in the spring.

0510 Publications

This is a hands-on practical application course; students will contribute to the school newspaper and yearbook. Students have the opportunity to learn Microsoft Word, Photoshop and In Design CSZ computer programs.

0511 Drama/Theater

This course will provide knowledge of the principles of drama and hands-on experience of all aspects of theatrical productions.

0800 ACT/SAT Preparation

This computer-centered course prepares juniors and seniors for standardized college entrance exams through test-taking strategies and practice.

FAMILY AND CONSUMER SCIENCES COURSES

Grades 9-12	*All ½ credit
	1001 Senior Mentoring(11th & 12th Grade South High School Only) 1300 Career Exploration I 6402 Creative Cook 6502 Food for Fitness 6503 Teen and Adult Roles 6506 Independent Living 6508 Child Development

1001 Senior Mentoring (for Rebel Grow, the Freshman Mentoring Program)
At the heart of every freshman mentoring program are the student mentors. Seniors/Juniors apply the previous spring to become 1 of approximately 66 classroom mentors whose responsibilities include taking daily attendance, planning daily classroom activities, tutoring students with academic needs, facilitating small group discussions, leading mini lessons, and communicating with the Rebel Grow teacher-coordinators.

1300 Career Exploration I
This course will encourage you to think about your future. You will take a close look at potential career opportunities that match your personal aptitudes, passions and interests. Whether you have set your sights on college, technical schools, or the military, this course will lead you through the steps to plan your future. Learn about employability skills, interviewing, career options, requesting letters of recommendation, writing admission essays, job shadowing and creating a portfolio. **Fee Required**

6402 Creative Cook
Would you like to learn about the ins and outs of a kitchen? Learn the basics of cooking and food preparation techniques to be confident in the kitchen. This course offers hands-on experience in meal planning, preparing, serving and storing foods. **Fee Required**

6502 Food for Fitness
Learn the significance of making healthy choices for physical, social and mental health. This course offers hands-on experience in preparing nutritious meals, alternative cooking methods and applying the food guide pyramid**. Fee Required**

6503 Teen and Adult Roles
This course will address a myriad of problems and concerns that you face as an adolescent. With an emphasis on development of character, leadership, citizenship and personal responsibility, you will be introduced to processes and strategies to deal with troubling stressful situations. **Fee Required**

6506 Independent Living
This course is a simulation of life in the real world**.** Through a simulation experience you will learn about the realities of living on your own, obtaining a job and researching careers. You will analyze finances and be able to establish a budget, open a checking account and select appropriate housing**. Fee Required**

6508 Child Development
Have you ever considered a career as a teacher, psychologist, pediatrician, nurse, child care provider or social worker? Then this class is for you! Learn about physical, social, emotional, and intellectual development of children at various ages and stages. This course provides for field experiences, including creating developmentally appropriate learning tasks and activities, interacting with children in a day care environment, and considering the responsibilities of parenthood. **Fee Required**

FINE ARTS COURSES - MUSIC

Grade 9	
	7401 Symphonic Band (1 credit) 7403 Wind Symphony (1 credit) 7411/7413 Exploring Visual Art/ Music (1 credit – 1 semester art; 1 semester music) 7412 Mixed Choir (1 credit) 7512 Concert Choir (1 credit)
Grades 10-12	
	7401 Symphonic Band (1 credit) 7403 Wind Symphony (1 credit) 7411/7413 Exploring Visual Art/ Music (1 credit - 1 semester art; 1 semester music) 7412 Mixed Choir (1 credit) 7512 Concert Choir (1 credit) 7503 Music Theory & Harmony (1 credit)

7401 Symphonic Band
Course objectives include musical skill development as an individual and within the ensemble setting while performing moderately advanced to advanced compositions.

7403 Wind Symphony
This course is for selected instrumentalists who have demonstrated high musical skill potential or achievement. **Prerequisite: Audition**

7412 Mixed Choir
Performs annually at the winter and spring concerts. This choir serves as preparation for those who may wish to audition for Concert Choir.

7512 Concert Choir
Open to all high school students by audition only. Course objectives include a more enriching choral experience through the further development of individual skills and exposure to a wider variety of quality choral literature, with performance being the primary goal.
Prerequisite: Audition

7411 / 7413 Exploring Visual Art / Music
These courses offer students an understanding and appreciation of the basic principles of art and music in a variety of sensory media. In addition, students may also take other upper level art/music courses. **Fee Required**

7503 Music Theory and Harmony
Topics to be discussed include a brief study of western music history, musical notation, major and minor keys, scales, modes, intervals, triads, elementary arranging, and ear training. Students may repeat this course for a more intense study of music theory, form, and composition.

FINE ARTS COURSES - ART

Grade 9	
	7405 Art I (1 credit) 7411/7413 Exploring Visual Art and Music (1 credit – 1 semester art; 1 semester music)
Grade 10	
	7405 Art I (1 credit) 7406 Art II (1 credit) 7407 Ceramics I (½ credit) 7507 Ceramics II (½ credit) 7411/7413 Exploring Visual Art and Music (1 credit – 1 semester art; 1 semester music) 7408 Graphic Design I (½ credit)
Grade 11	
	7405 Art I (1 credit) 7406 Art II (1 credit) 7502 Art III (1 credit) 7407 Ceramics I (½ credit) 7507 Ceramics II (½ credit) 7411/7413 Exploring Visual Art and Music (1 credit - 1 semester art; 1 semester music) 7408 Graphic Design I (½ credit)
Grade 12	
	7405 Art I (1 credit) 7406 Art II (1 credit) 7502 Art III (1 credit) 7602 Art IV (1 credit) 7407 Ceramics I (½ credit) 7507 Ceramics II (½ credit) 7411/7413 Exploring Visual Art and Music (1 credit – 1 semester art; 1 semester music) 7408 Graphic Design I (½ credit)

7405 Art I
This is an introductory course to gain an overview of materials, techniques, vocabulary and art concepts. Students are evaluated based on studio projects, limited homework, written assignments, tests and participation in classroom activities. **Fee Required**

7406 Art II
This course is for students who want to further their talents and skills in both two and three-dimensional media. Projects/homework are more demanding and complex than in Art I. **Prerequisite: Art I. Fee Required**

7408 Graphic Design I
This is an introductory course to gain an overview of graphic design, including design basics, Adobe Photo Shop, Adobe Illustrator, and QuarkXPress. Students will develop the necessary skills to create computer-based pieces from start to finished product. **Prerequisite: Art I. Fee Required**

7502 Art III and 7602 IV
These courses are designed for the more serious student interested in pursuing an art-related career and for those who truly enjoy the creative process. Studio projects and homework are more demanding and sophisticated than those in Art II. Portfolio preparation occurs for those who are seeking college acceptance and scholarships. **Prerequisite: Art II. Fee Required**

7407 Ceramics I
This course is designed to introduce students to the basics of hand-building with clay. Through the creation of various functional and decorative forms, students will also explore a variety of surface treatments and decoration methods. Students are evaluated on studio projects, exercises, written assignments, tests and participation in classroom activities. **Prerequisite: Art I. Fee Required**

7507 Ceramics II
This course is for students who want to further develop their skill and confidence in working with clay. Students will continue to learn about hand-building while also learning the process of throwing on the potter's wheel and creating a mosaic. **Prerequisite: Art I and Ceramics I. Fee Required**

7411/7413 Exploring Visual Art/Music
This course offers students an understanding and appreciation of the basic principles of art and music in a variety of sensory media. In addition, students may also take other upper level art/music courses. **Fee Required**

HEALTH AND PHYSICAL EDUCATION COURSES

	Requirements	Electives
Grade 9		
	8301 Physical Education I (¼ credit)	
Grade 10		
	8401 Health (½ credit) 8402 Physical Education II (¼ credit)	
Grade 11/12		
		8602 Social Relations (½ credit)

8301 Physical Education I
The Physical Education program consists of a comprehensive co-educational curriculum with major emphasis on achieving and maintaining a health-enhancing level of physical fitness, participating regularly in physical activity, demonstrating competency in motor skills and movement patterns needed to perform a variety of physical activities and exhibiting responsible personal and social behavior that respects self and others in physical activity settings.

8402 Physical Education II
The Physical Education program consists of a comprehensive co-educational curriculum with major emphasis on achieving and maintaining a health-enhancing level of physical fitness, participating regularly in physical activity, demonstrating an understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities, and valuing physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

8602 Social Relations
This course will focus on social issues and healthy life style choices and how these affect personal, family and social relationships.

*** A student who participates in interscholastic athletics, marching band or cheerleading for at least two full seasons may substitute a different ½ unit credit class in any subject for the physical education unit.**

INDUSTRIAL TECHNOLOGY COURSES (NORTH HIGH SCHOOL ONLY)

Grade 9	*All ½ credit
	6406 Wood Technology 6407 Power Technology 6408 Drafting Communications 6410 Indoor Home Repair and Maintenance Construction 6414 Outdoor Home Repair and Maintenance Construction
Grade 10	*** All ½ credit**
	6406 Wood Technology 6407 Power Technology 6408 Drafting Communications 6410 Indoor Home Repair and Maintenance Construction 6414 Outdoor Home Repair and Maintenance Construction 6507 Engineering Communications 6510 Architectural Drawing
Grades 11-12	***All ½ credit**
	6406 Wood Technology 6407 Power Technology 6408 Drafting Communications 6410 Indoor Home Repair and Maintenance Construction 6414 Outdoor Home Repair and Maintenance Construction 6507 Engineering Communications 6510 Architectural Drawing

6406 Wood Technology
Students will use fundamental woodworking skills, hand and power tools. Student will plan and produce projects using proper design and safe work habits. **Fee Required**

6407 Power Technology
Students will learn basic mechanics. Students will rebuild small 4-stroke and 2-stroke cycle engines. They will use basic mechanic's and specialty tools in a safe and organized manner. **Fee Required**

6408 Drafting Communications
Students will learn basic drafting skills. Areas covered are single and multi-view drawing, 3-D drawing and surface development. Measurement and dimensioning will require basic math skills. **Fee Required**

6507 Engineering Communications
This is an advanced course in Drafting and Design. Areas covered are sectioning, fasteners and working drawing, both detail and assembly. Students will also be engaged in model construction. **Prerequisite: Drafting. Fee Required**

6510 Architectural Drawing
This course will provide students with an opportunity to study the fundamental techniques and practices in architectural drafting and design. They will design and produce a set of house drawings including floor plans, elevations, foundation, and plot plans. Students will also be engaged in model construction**. Prerequisite: Drafting. Fee Required**

6410 Indoor Home Repair and Maintenance Construction
This is a study of indoor home construction, maintenance and repair. Areas covered are drywall, painting, wall-papering, plumbing and electrical work. Students will work with hand and power tools in a safe and organized manner. **Fee Required**

6414 Outdoor Home Repair and Maintenance Construction
This is a study of outdoor home construction, maintenance and repair. Areas covered are framing walls, partitions, floors, roofs, shingling, and insulation. Students will work with hand and power tools in a safe and organized manner. **Fee Required**

MATH COURSES

	College Prep	Honors/AP
Grade 9		
	3093 Algebra I (1 credit) 3103 Geometry (1 credit) 3128 Sports Statistics (½ credit)	3091 Honors Geometry (1 credit)
Grade 10		
	3093 Algebra I (1 credit) 3103 Geometry (1 credit) 3113 Algebra II (1 credit) 3089 Algebra I Connections (½ credit) 3090 Algebra II Connections (½ credit) 3128 Sports Statistics (½ credit)	3101 Honors Algebra II/Trig (1 credit) 3091 Honors Geometry (1 credit)
Grades 11-12		
	3093 Algebra I (1 credit) 3103 Geometry (1 credit) 3124 Financial Algebra (1 credit) 3123 Pre-Calculus (1 credit) 3122 Intro. To College Math (1 credit) 3089 Algebra I Connections (½ credit) 3090 Algebra II Connections (½ credit) 3128 Sports Statistics (½ credit)	3101 Honors Algebra II/Trig (1 credit) 3111 Honors Pre-Calculus **(**1 credit**)** 3121 AP Calculus AB (1 credit) 3125 AP Statistics (1 credit) 3126 AP Calculus BC (1 credit)

3089 Algebra I Connections, 3090 Algebra II Connections

This course is designed for students who have not quite mastered the needed algebra skills taught in Algebra I and are necessary for proficiency in future math courses. The course content will cover combining like terms, writing equations in slope-intercept form given a variety of situations, solving for a variable given many different circumstances, factoring trinomials, distributing polynomials and ending with the introduction of rational functions. The first semester of this class is designed for Juniors or Seniors currently enrolled in Algebra II. This class, along with Algebra II, should bridge any gaps in mastery. The second semester is designed for students currently enrolled in Geometry. This class should front-load concepts for students prior to entering Algebra II and fill any gaps in instructional understanding.

3093 Algebra I

This course examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems, quadratic equations and functions, polynomial expressions, data analysis, probability, and the elementary properties of functions. Mathematical modeling of real-life problems and problem solving are major themes of the course.

3091 Honors Geometry

In this course students will study congruent segments and angles, circle chords, secants and tangent segments, parallel and perpendicular lines, angle measure in triangles, direct and indirect triangle congruence and similarity, proofs, solids of revolution, logic, similar triangles, transformations, the Pythagorean Theorem, coordinate geometry, and surface area and volume of solids. In comparison to Geometry, this course provides increased depth of the study and the development of a project each quarter.

3103 Geometry

In this course students will study congruent segments and angles, circle chords, secants and tangent segments, parallel and perpendicular lines, angle measure in triangles, direct and indirect triangle congruence and similarity, proofs, solids of revolution, logic, similar triangles, transformations, the Pythagorean Theorem, coordinate geometry, and surface area and volume of solids.

3101 Honors Algebra II w/Trigonometry

In this course students will study the complex number system, symbolic manipulation, and functions. Students discuss, represent, and solve increasingly sophisticated real-world problems using advanced algebraic and data analysis techniques incorporating technology. They also study the properties of functions, the algebra of functions, matrices, and systems of equations. Linear, quadratic, exponential, logarithmic, polynomial, and rational functions are studied with an emphasis on making connections to other disciplines and as preparation for a multitude of careers. Students apply advanced data analysis techniques to find, justify and use the best-fit model from all function models. **Requirements: Graphing Calculator**

3113 Algebra II

In this course students will study complex number systems, symbolic manipulation, and functions. Students discuss, represent, and solve increasingly sophisticated real-world problems using advanced algebraic and data analysis techniques incorporating technology. They also study the properties of functions, the algebra of functions, matrices, and systems of equations. Linear, quadratic, exponential, logarithmic, polynomial, and rational functions are studied with an emphasis on making connections to other disciplines and as preparation for a multitude of careers. Students apply advanced data analysis techniques to find, justify and use the best-fit model from all function models. Communication of the problem-solving skills used is an important part of this course. **Requirements: Graphing Calculator**

3111 Honors Pre-Calculus

In this course students are introduced to a variety of applications that establish the importance of mathematics in everyday life. During the course of the year students reinforce skills learned in Algebra II, expand upon the intricacies of trigonometry, and develop the idea of limits and derivatives. Course depth, the quarterly projects assigned, and development of calculus concepts contribute to the added rigor of this course. **Requirements: Graphing Calculator**

3123 Pre-Calculus

In this course students are introduced to a variety of applications that establish the importance of mathematics in everyday life. During the course of the year students reinforce skills learned in Algebra II and expand upon them. They will utilize trigonometric properties and apply them to real world examples. Students will then be introduced to limits and derivatives. Throughout the year students will explore and study polynomial functions, trigonometry, polar graphs, and applications of calculus concepts. **Requirements: Graphing Calculator**

3124 Financial Algebra

In this course students will investigate and solve relations of functions numerically, analytically, and graphically. Topics include solutions of polynomials, exponential systems of linear and non-linear equations, matrix solutions, sequences and series and mathematical modeling. Students will learn algebra with financial applications.

3122 Introduction to College Math

This is a ½-year statistics and ½-year calculus class. Statistics is taught in the 1st semester. The student will be introduced to various graphical displays of both univariate and bivariate data. They will explore normal distributions and touch upon binomial and geometric distributions. They will develop skills to accurately gather data through randomization while eliminating bias. Statistics will end with the development of the confidence interval and one variable hypothesis testing. In Calculus, the students will develop and work through limit ideas, both algebraically and graphically. They will discover the various uses/applications of the derivate, setting the groundwork for the algebraic and graphical ideas of integrals.

3121 AP Calculus AB

In this course students will be introduced to differential and integral calculus topics which are equivalent to a college level Calculus I course. The course uses advanced skills in Algebra, Geometry, and Trigonometry to analyze real world problems involving movement and variable rates of change. Graphing calculator investigations are an integral part of the course and the AP exam. University credit can be earned with a successful performance on the AP exam. **Requirements: Graphing Calculator. Prerequisite: Mastery of Pre-Calculus**

3126 AP Calculus BC

This course teaches the extension of the differential and integral calculus topics of Calculus AB, which is the equivalent to two semesters of college level Calculus 1 and 2 courses. The course uses advanced skills in algebra, geometry, and trigonometry to analyze real world problems involving movement and variable rates of change. This course focuses on the application of calculus using vectors, parametric/ polar modeling, and power series. University credit can be earned with a successful performance on the AP exam. **Requirements: Graphing Calculator. Prerequisite: Mastery of Pre-calculus**

3125 AP Statistics

This is an introductory, non-calculus based college level course which introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data, including exploring data, statistical inference, planning a study, and using probability and simulation to anticipate patterns. Graphing calculators with statistical capabilities are an integral part of the course and of the AP exam. **Requirements: Graphing Calculator. Prerequisite: Mastery of Algebra II**

3128 Sports Statistics

This semester course brings a unique approach to the teaching and learning of introductory statistics. By using sports as a theme, students can better understand and appreciate the general topics. From data description through simple linear regression, each topic is discussed and explained via examples from the sports world. **Prerequisite: Passing of Algebra I**

SCIENCE COURSES

	College Prep	Honors/AP
Grade 9		
	2302 Physical Science	2401 Honors Biology (1 credit)
Grade 10		
	2403 General Biology (1 Credit) 2507 General Chemistry (1 Credit) 2304 Current Issues and Trends in Science (½ Credit) 2643 Astronomy (½ credit) 2645 Human Anatomy and Physiology (1 credit)	2401 Honors Biology (1 credit) 2423 AP Environmental Science (1 credit) 2500 Honors Chemistry (1 credit) 2641 AP Physics 1 (1 credit) 2621 AP Biology (1 credit)
Grade 11		
	2421 Environmental Science (1 credit) 2507 General Chemistry (1 credit) 2602 Physics (1 credit) 2642 Forensic Science (½ credit) 2643 Astronomy (½ credit) 2304 Current Issues and Trends in Science (½ credit) 2645 Human Anatomy and Physiology (1 credit)	2423 AP Environmental Science (1 credit) 2500 Hon. Chemistry (1 credit) 2641 AP Physics 1 (1 credit) 2605 AP Physics 2 (1 credit) 2621 AP Biology (1 credit) 2631 AP Chemistry (1 credit)
Grade 12		
	2304 Current Issues and Trends in Science (½ credit) 2421 Environmental Science (1 credit) 2555 Science OGT (¼ credit) 2556 Science OGT (¼ credit) 2507 General Chemistry (1 credit) 2602 Physics (1 credit) 2642 Forensic Science (½ credit) 2643 Astronomy (½ credit) 2645 Human Anatomy and Physiology (1 credit)	2423 AP Environmental Science (1 credit) 2500 Hon. Chemistry (1 credit) 2641 AP Physics 1 (1 credit) 2605 AP Physics 2 (1 credit) 2621 AP Biology (1 credit) 2631 AP Chemistry (1 credit)

2302 Physical Science

This course provides a foundation in basic chemistry and physics. Topics include motion, forces, work, energy, waves, atoms, chemical reactions and the Periodic Table. Throughout the course students will acquire useful lab skills, math applications and reasoning skills.

2401 Honors Biology

This course meets 7-8 periods a week (double period lab class). The course approaches the study of life sciences from the standpoint of molecules and is lab and research-oriented. The major units within this course include: ecology, biochemistry, energy transformation, cell structure, cell function, genetics, and anatomy. **Prerequisite: Algebra I. Fee Required**

2403 General Biology
This course includes the study of ecology, biochemistry, energy transformation, cell structure, cell function, genetics, and anatomy. **Fee Required**

2421 Environmental Science
This course is designed to study the interactions between humans and the Earth. This includes studying environmental impacts of humans, environmental processes, the Green revolution, environmental problems, diversity, matter and energy, and technology. Students will learn various applications of environmental science through discussion, demonstration, and experimentation. **Prerequisite: Biology. Fee Required**

2423 AP Environmental Science
This course is designed to be the equivalent of a one-semester, introductory college course in environmental science through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.
Prerequisite: Chemistry and Biology. Fee Required

2500 Honors Chemistry
This course meets 7-8 periods a week (double period lab class). The course of study includes: atomic structure, quantum mechanics, molecular geometry, chemical energy, and chemical equilibrium through analysis and interpretation of experimental evidence.
Prerequisite: **Algebra II/Trig (may be taken concurrently)**. **Fee Required**

2507 General Chemistry
This course meets 7-8 periods a week (double period lab class). The course of study includes: atomic structure, quantum mechanics, molecular geometry, chemical energy, and chemical equilibrium. The course includes a basic analysis and interpretation of experimental evidence**.**
Prerequisite: Algebra I. Fee Required

2602 Physics
This course meets 7-8 periods a week (double period lab class). The course covers the relationship between matter and energy which includes mechanics, light and optics, fluids, electricity and magnetism. **Prerequisite: Algebra II and Geometry. Fee Required**

2621 AP Biology
This course meets 7-8 periods a week (double period lab class) and is equivalent to a first year college course. The course develops specialized content to extend connections, depth, and detail of biology, including concepts in anatomy, physiology, energy transfer, ecology, behavior, evolution, genetics, cell biology, biotechnology, diversity, growth, and human biology.
Prerequisite: Honors Biology. Fee Required

2631 AP Chemistry
This course meets 7-8 periods a week (double period lab class) and is equivalent to a first year college course. This course develops specialized content to extend connections, depth and detail of chemistry, including concepts in inorganic, organic, analytical, physical and biochemistry. **Prerequisite: Algebra II/Trig and Honors Chemistry**

2641 AP Physics 1
Advance Placement Physics I is the first course in a two-course sequence that is an algebra-based college physics course which examines the physical laws and principles that govern nature. The general areas that are studied are motion, forces, energy, waves and electricity. The course will take these topics and not only provide information about them but will also show how these topics are relevant for the student's life. Emphasis will be placed on understanding the concepts of physics and then analyzing the concepts mathematically. The problem-solving skills developed in this course are transferable to many areas outside of physics. The course is designed to be useful to students having widely differing backgrounds and career plans. Laboratory work is a vital and essential part of this course. As much as possible, students will have "hands-on" involvement with the material so as to actually see and experience what it is that is being learned. **Prerequisite: Algebra II**

2605 AP Physics 2
Advance Placement Physics II is the second course in the two-course sequence that is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. **Prerequisite: Algebra II and AP Physics I.**

2642 Forensic Science
This course introduces students to forensic science. It is an inquiry-based course that uses many disciplines to analyze physical and biological evidence found at crime scenes. Units of study include: fingerprints, hair, fibers, drug & chemical analysis, trace evidence, blood, DNA, human remains, soil, and document/handwriting analysis. **Fee Required**

2643 Astronomy
This course provides an in-depth study of our solar system, stars and constellations, the structure of the universe, and the dynamic nature of the cosmos. **Fee Required**

2304 Current Issues and Trends in Science
This course gives students an understanding of how science affects the everyday world. The students will use topics from the news to drive scientific research.

2645 Human Anatomy and Physiology
This course will deepen students' understanding of the human body. Students will investigate the human body structure and its functions. The course will examine the structure and function of the major body systems including the skeletal, muscular, nervous, endocrine, circulatory, lymphatic, integumentary, digestive, respiratory, urinary, and reproductive systems.

2555 Science OGT (1st Quarter) 2556 Science OGT (3rd Quarter)
These elective courses are for the senior who needs intensive help in passing the science portion of the OGT. These courses do not count toward the Core Science Graduation Requirements.
Fee Required

SOCIAL STUDIES COURSES

	College Prep *1 credit	Honors/AP *1 credit	Electives *½ credit
Grade 9			
	1315 World History and Civilizations	1316 Honors World History and Civilizations	
Grade 10			
	1402 US History	1403 Honors US History 1504 AP Psychology 1621 AP US History	1502 Sociology 1503 Psychology 1727 Theory of Econ I 1728 Theory of Econ II
Grade 11			
	1506 US Government	1623 AP US Government and Politics 1504 AP Psychology	1502 Sociology 1503 Psychology 1727 Theory of Econ I 1728 Theory of Econ II
Grade 12			
		1626 AP European History 1504 AP Psychology	1502 Sociology 1503 Psychology **1622 European History (1 credit)** 1624 Senior Seminar Post WWII 1625 Senior Seminar Modern Era 1727 Theory of Econ I 1728 Theory of Econ II

1315 World History and Civilizations

World History is a required general survey course that includes the study of the ancient river valley civilizations, ancient Greece, ancient Rome, the Middle Ages, the Age of Exploration/Discovery, the Renaissance and Reformation, the Age of Kings and Revolutions, the Industrial Revolution, the World Wars, and the world since 1945. Emphasis is on the time period from 1600 to present. With an understanding of various geographical, economic, social, political, cultural, and philosophical factors, the course's content focus is on Western civilizations. Although the focus is on Western civilizations, important aspects of non-Western civilizations will receive coverage.

1316 Honors World History and Civilizations

This weighted course fulfills the district's requirement for World History. Although the time scope of this course is similar to that of World History, the purpose of this course is to develop greater understanding of the evolutionary nature of the geographical, economic, social, political, cultural, and philosophical processes that form historical reality. Using specific themes, this course shall emphasize relevant fact knowledge, view interpretive issues, and develop student skills to analyze types of historical evidence. Thus, student understanding is advanced through a combination of factual knowledge and analytical skills and shall be evidenced through various oral and written exercises.

1402 US History

The course surveys the basic historical development of the United States from Reconstruction to the present. Through an emphasis on the social, political, and economic developments of the United States, students will be presented with their nation's past in order to understand the major forces that enabled the nation to reach its present condition. This course fulfills the American History Graduation requirement. As per ODE requirements, students will be expected to take an End of Course Exam which will be a part of the final course grade.

1403 US History Honors

The course surveys the basic historical development of the United States from Reconstruction to the present. Through an emphasis on the social, political, and economic developments of the United States, students will be presented with their nation's past in order to understand the major forces that enabled the nation to reach its present condition. This course is required of all 10^{th} graders and fulfills the American History Graduation requirement. As per ODE requirements, students will be expected to take an End of Course Exam which will be a part of the final course grade.

1506 US Government

This course, with its constitutional emphasis, covers the study of the role of individuals/groups in a democratic society and market economy. The course will also discuss federalism, separation of powers, due process of law, pressure groups, political parties, the voting public, political leaders, and citizen responsibility. This course fulfills the Government Graduation requirement. As per ODE requirements, students will be expected to take an End of Course Exam which will be a part of the final course grade.

1502 Sociology
This elective is designed to survey the science of society by examining the structure, relationship, roles and function of groups. Students will study the history and content of culture, including the major institutions of society (family, religion, and education), the process of socialization, and social classes and stratification in society. Social problems in contemporary America and current events associated with those issues are researched and discussed.

1503 Psychology
This elective is a survey course which includes study in the following areas: psychology as a science, learning and understanding human behavior, patterns of behavior (including motivated and emotional behavior) and mental health and human interaction, attitudes and social influence.

1504 AP Psychology
The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, analyze bias, evaluate claims and evidence, and effectively communicate ideas.

1621 AP US History
The AP US History course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes, such as identity, peopling, and America in the world. In line with college and university US history survey courses' increased focus on early and recent American history and decreased emphasis on other areas, the AP US History course expands on the history of the Americas from 1491 to 1607 and from 1980 to the present. It also allows teachers flexibility across nine different periods of US history to teach topics of their choice in depth.

1623 AP US Government and Politics
This course is designed to enable students to develop a critical perspective of government and politics in the United States. The nature of the American political system, its development over the past two centuries, and how it works today, is examined. The College Board curriculum will be followed.

1622 European History
This elective course provides a college-level study of European history from 1300 to present day. It is designed to help accelerated students, who have already fulfilled their social studies graduation requirements, to understand the history of Europe, its people, cultures, economics, politics, and institutional structures. Students may choose to take the AP European History exam after completing this course.

1624 Senior Seminar I Post World War II Era and 1625 Senior Seminar II The Modern Era

These courses will offer seniors a study and interpretation of major events which shaped political thought using primary sources as a text.

1626 AP European History

This course is the study of European history since 1450 and introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. This knowledge provides the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. This course uses the primary text used in the 1622 European History course, in addition to other supplemental resources, and moves at a comparatively faster pace that is reflective of a college course.

1727 Theory of Economics I and 1728 Theory of Economics II

These courses will be theory based. Students will understand economic graphs, ratios, and laws from a microeconomic and macroeconomic perspective.

WORLD LANGUAGE COURSES (German is offered at North High School Only)

Grades 9	***All 1 credit**
	4301 French I 4401 French II 4304 Spanish I 4404 Spanish II 4302 German I
Grade 10	***All 1 credit**
	4301 French I 4401 French II 4501 French III 4304 Spanish I 4404 Spanish II 4504 Spanish III 4302 German I 4402 German II
Grade 11	***All 1 credit**
	4301 French I 4401 French II 4501 French III 4601 French IV Honors 4304 Spanish I 4404 Spanish II 4504 Spanish III 4604 Spanish IV Honors 4302 German I 4402 German II 4502 German III
Grade 12	***All 1 credit**
	4301 French I 4401 French II 4501 French III 4601 French IV Honors 4701 French V Honors 4304 Spanish I 4404 Spanish II 4504 Spanish III 4604 Spanish IV Honors 4704 Spanish V Honors 4302 German I 4402 German II 4502 German III 4602 German IV Honors

4301 French I, 4302 German I, 4304 Spanish I

These courses are an introduction to communicating in a world language by means of building basic vocabulary and developing skills of listening, speaking, reading and writing. Classes include an introduction to culture in the various countries where the languages are spoken. **Fee Required**

4401 French II, 4402 German II, 4404 Spanish II

Vocabulary is expanded and skills in conversation, grammar, reading, writing and listening are further developed. Historical and cultural information about target countries continues.
Fee Required

4501 French III, 4502 German III, 4504 Spanish III

These courses include further development of vocabulary and more complex grammar. Higher speaking, listening, reading and writing skills develop through literature, newspaper/magazine/internet articles, presentations and debates. **Fee Required**

4601 French IV Honors, 4602 German IV Honors, 4604 Spanish IV Honors

These courses provide an advanced study and usage of the language with the goal of providing a solid basis for application at the university level and /or the ability to waiver some or all of the world language requirements. Students will be exposed to practice University Language Placement Tests. Students will be involved in many projects and oral presentations to improve their language usage and to encourage their ability to self-express in creative, thoughtful and meaningful ways.

4701 French V Honors and 4704 Spanish V Honors

Honors will follow the CollegeBoard guidelines for an AP-level course. Written and oral proficiency will be the main objective gained from:

1. Formal/informal speech excerpts from several target language speaking countries;
2. Vocabulary, idiomatic expressions, syntactical definition from media, newspapers, and the internet;
3. Composition of expository paragraphs and essays;
4. Verbal expression emphasizing fluency and comprehension

CAREER-TECHNICAL EDUCATION PROGRAMS

Ohio College Tech Prep programs are shared resources among the Euclid, Mentor, Wickliffe and Willoughby-Eastlake School districts. Together, these districts comprise the Lake Shore Compact. The goal of a college tech prep program is to provide a seamless curriculum pathway beginning in the junior year and continuing through a two-year associate degree program. Tech Prep blends college prep and technical education into an exciting program with two primary goals – to help students to prepare for high-tech careers and to help employers obtain better-prepared workers. Through cooperation and agreements with four-year universities, students also have the option of continuing their education toward a bachelor's degree.

Some Compact programs require students to travel to neighboring districts or Lakeland Community College and spend a portion of the day, or in some cases, the entire day at the program site. If the student spends a partial day attending the program, students will return to their home school for academic subjects. If students spend the whole day at the program site, students will remain at the program school for academic subjects. When considering Ohio Tech Prep options, it is important to know that:

- Transportation is provided
- Students graduate from their home high school
- Students can participate in home high school extra-curricular activities
- Most programs are two-years, beginning in the junior year
- An application process is required
- Articulation and college credit may be available to successful completers

Registration begins in January of the year prior to program enrollment. Interested students and their parents should complete a career-technical application which may be obtained from the Guidance Office. The completed applications with parent signatures should be returned to the Guidance Office for processing. Students will be notified of their acceptance.

Once enrolled in a two-year tech prep program, **the junior will be expected to remain in that program for the two years.** Students will receive 3 credits per year for their programs.

Fee and equipment charges are required for all tech prep programs. Students will be given a list of these charges by their instructors at the beginning of the course. The Lake Shore Compact offers the following college tech prep programs:

OHIO COLLEGE TECH PREP PROGRAMS

Career-Technical Programs	Location
9636 Allied Health 1	Career Academy - Eastlake
9637 Allied Health 2	Career Academy - Eastlake
9512 Auto Collision 1	Career Academy - Willoughby
9612 Auto Collision 2	Career Academy - Willoughby
9429 Auto Services 1	Career Academy - Willoughby
94299 Auto Services 2	Career Academy - Willoughby
9514 Auto Service Technology 1	Euclid High School
9614 Auto Service Technology 2	Euclid High School
6212 Business Administration and Management 1	Mentor High School
7212 Business Administration and Management 2	Mentor High School
9710 CAD Engineering Technology 1	Lakeland
9715 CAD Engineering Technology 2	Lakeland
9439 Career Exploration	Career Academy - Willoughby
9511 CISCO Networking Technology 1	Euclid High School
9611 CISCO Networking Technology 2	Euclid High School
9542 Commercial Building Trades 1	Career Academy - Willoughby
9543 Commercial Building Trades 2	Career Academy - Willoughby
999717 CNC Manufacturing Technology 1	Lakeland
999716 CNC Manufacturing Technology 2	Lakeland
9510 Computer Information Systems 1	Lakeland
9610 Computer Information Systems 2	Lakeland
9811 Construction Management 1	Lakeland
9812 Construction Management 2	Lakeland
9518 Cosmetology 1	Career Academy - Willoughby
9618 Cosmetology 2	Career Academy - Willoughby
9562 Criminal Justice 1	Euclid High School
9692 Criminal Justice 2	Euclid High School
9545 Culinary Arts 1	Euclid Shore Cultural Center
9645 Culinary Arts 2	Euclid Shore Cultural Center
9540 Early Childhood Education 1	Mentor High School
9672 Early Childhood Education 2	Mentor High School
9638 Health Information Management (Health Informatics) 1	Career Academy - Eastlake
9639 Health Information Management (Health Informatics) 2	Career Academy - Eastlake
6409 Hospitality & Lodging 1	Career Academy - Willoughby
64099 Hospitality & Lodging 2	Career Academy - Willoughby
9711 Information Technology Services 1	Lakeland
9713 Information Technology Services 2	Lakeland
9516 Interactive Media 1	Mentor High School
9616 Interactive Media 2	Mentor High School
9439 Job Training Program	Career Academy - Willoughby
9546 Landscape and Turf Management 1	North High School
9547 Landscape and Turf Management 2	North High School

9634 Licensed Practical Nursing 1	Career Academy - Eastlake
9635 Licensed Practical Nursing 2	Career Academy - Eastlake
9409 Managerial Business Technology 1	Career Academy - Willoughby
94099 Managerial Business Technology 2	Career Academy - Willoughby
9520 Marketing and Entrepreneurship 1	Mentor High School
9620 Marketing and Entrepreneurship 2	Mentor High School
9632 Medical Assisting 1	Career Academy - Eastlake
9633 Medical Assisting 2	Career Academy - Eastlake
999512 Mobile Apps and Digital Development 1	Euclid High School
999612 Mobile Apps and Digital Development 2	Euclid High School
9449 Production Welding 1	North High School
94499 Production Welding 2	North High School
9595 Visual Communications 1	Euclid High School
9695 Visual Communications 2	Euclid High School
9527 Welding 1	Career Academy - Willoughby
9627 Welding 2	Career Academy - Willoughby

Allied Health

9636 Allied Health 1

Consists of 9563 Principles of Allied Health and 9564 Patient Centered Care

9637 Allied Health 2

Consists of 9565 Pharmacology and 9566 Medical Terminology

Location: Willoughby-Eastlake Career Academy, Eastlake (Kennedy)

This program is designed to provide the basic health-care skills necessary for an entry-level position in health care. Skills include CPR, STNA training (State Tested Nursing Assistant), pharmacology, and health career awareness. Students will learn to assist patients with daily living and fundamental tasks, assist in a pharmacy setting, and prepare sterile environments. Career opportunities for students completing the Allied Health Program may include STNA, pharmacy tech, or home health aide.

Auto Collision

9512 Auto Collision 1

Consists of 9560 Collision Nonstructural Inspection and Repair and 9561 Collision Painting and Refinishing

9612 Auto Collision 2

Consists of 9559 Collision Structural Inspection and Repair and 9562 Collision Electrical and Mechanical

Location: Willoughby-Eastlake Career Academy, Willoughby

The Auto Collision program is designed to teach students the complete cycle of repairing automobiles and other vehicles damaged from normal "wear and tear" or from accidents and collisions. The knowledge and skills covered include shop safety, use of hand and power tools, rust repair, sheet metal repair, body panel replacement, fiberglass repair, unibody and frame repair, custom fabrication, custom painting, MIG welding, detailing and customer service. ASE and NATEF certifications are available for qualified students.

Job opportunities for those completing this program include: body repair shops, auto dealerships, wholesale or retail parts and paint sales, frame shops, front end shops, custom shops, auto recycler, shop foreperson and major claims insurance adjuster. The Ohio Technical College offers advance placement in Auto Collision repair and Refinishing Technologies. College credit is also available through Cuyahoga Community College. In addition to classroom training, senior-level students who meet the established requirements may be permitted to work at an Auto Collision related job during the second semester of their senior year.

Auto Services

9429 Auto Services 1

Consists of 9532 Ground Transportation Maintenance, 9533 Automotive Braking, Suspension, and Steering Systems, and 9534 Ground Transportation Engine and Power Train

94299 Auto Services 2

Consists of 9535 Ground Transportation Electrical/Electronics, 9536 Sports/Recreational Power Systems, and 9537 Automotive Engine Performance

Location: Willoughby-Eastlake Career Academy, Willoughby

The Auto Services program is a "hands on" learning environment, and experience is gained by performing many aspects of customer service. Students in the 1st year of the Auto Services program will be taught to use a computerized 4-wheel alignment machine and computerized wheel balancer and gain experience with tire pressure monitoring systems. Students will also have the opportunity to receive the SP2 safety certificate and The Valvoline Motor Oil Basics Certificate. Students will remove and replace various steering and suspension components, brakes and exhaust systems and will use MIG welding and Oxy fuel torches.

Second year students will use a variety of advanced computerized scan tools from Snap-On and Bosch to diagnose and repair drive train, emission, electrical issues such as Anti-Lock Brake systems and check-engine lights. Students will be introduced to drive train, transmission and engine repair. Students will also be introduced to the maintenance and repair of sports and recreational vehicles such as ATVs and motorcycles.

Auto Service Technology

9514 Auto Service Technology 1
9614 Auto Service Technology 2
Location: Euclid High School

Auto Technology is a two-year course which trains students in all areas of mechanical and electrical automotive repair. Specifically, the knowledge and skills of the Auto Service Technology program include shop safety, hand and power tools use, vehicle maintenance, braking systems, steering and suspension systems, cooling and lubrication systems, exhaust systems, electrical/electronic systems, engine and drivability diagnosis, axles and drive trains and customer service. Mechanical and electrical theories along with the math and science of the automobile are taught in the classroom to assist with diagnoses of all systems.

ASE and NATEF certifications are available to qualified students. Qualified students may earn articulated credit through Cuyahoga Community College. Career opportunities for students who complete this program include: apprentice auto dealership service technician, service advisor, retail or wholesale part sales and transmission, front end, or muffler shops. This course is an excellent preparation for any post-high school auto technical school or technical college.

Business Administration and Management

6212 Business Administration and Management 1
7212/7213 Business Administration and Management 2
Location: Mentor High School

1 credit junior year; 4 credits senior year
Juniors in this program may attend Mentor High School all day for both academics and the program. Juniors also have the option of taking some academics at their home high school. English is taught in collaboration with the Business Administration and Management Program. Graduation is from the student's home school.

This 2-year program prepares students for a variety of entry-level positions appropriate to general management background and a college major. In the junior year, students take a one-period Related class, studying Management and Leadership, Strategic Management, Macro/Microeconomics, Money and Personal Finance/Investing, Marketing and Sales, Information Technology, and Employability and Career Development. During the senior year, students study Business Analysis, Entrepreneurship, Business Law, Human Resource Management, and Operations Management. Seniors spend the first part of their day in Related class and academics; the afternoons are spent working at a paid business-related job for which students receive high school credit.

Possible careers include management and business leaders in private industry, local and state government agencies, banks, savings and loans, credit unions, nonprofit organizations, insurance companies, retail management, real estate, and colleges and universities.

CAD Engineering Technology

9710 CAD Engineering Tech 1

9715 CAD Engineering Tech 2

Location: Mentor/Lakeland

This course prepares students for careers in operations in manufacturing industries. Emphasis is placed on problem-solving and critical thinking skills. A CAD engineering technician is available to assist with the implementation of the manufacturing process from design to finished product. Technicians support the work of the engineer, utilizing theoretical knowledge of fundamental scientific, engineering, mathematical or drafting design and principles. CAD knowledge and skills include manual drafting and CAD drawing techniques, use of measuring and hand tools as well as manual machines, programming and operation of CNC equipment, SURFCAM software, 3-D solid modeling, geometry and trigonometry applications, casting techniques and welding processes, plastics, hot and cold forming of metals and heat treating and mechanical testing. Qualified students may earn up to 14 semester hours of credit at Lakeland Community College.

CISCO Networking Technology (Honors Level Program)

9511 CISCO Networking Technology 1

9611 CISCO Networking Technology 2

Location: Euclid High School

CISCO Networking Technology prepares students for careers in network systems analysis, planning, and administration. Students gain the necessary skills to analyze network system needs from design, installation, maintenance, and management of network systems. Labs utilize CISCO routers and switches through which students learn how to set up ftp sites, email servers, VPN's and web-hosting services. The CISCO knowledge and skills includes networking fundamentals, WAN technologies, basic networking security, wireless concepts, configuring routing and switch networks, troubleshooting routing and switch networks, OSI model, remotely accessing network devices, TCP/IP, access control lists, VLANS and basic computer skills.

The CISCO curriculum includes preparation for the Network+ and CCENT certification. Upon completion of the two-year program, students are prepared to take the CISCO Certified Network Associate (CCNA) exam.

Commercial Building Trades

9542 Commercial Building Trades 1

Consists of 9571 Construction Technology – Core & Sustainable Construction, 9572 Carpentry & Masonry Technical Skills, and 9573 Mechanical, Electrical, and Plumbing Systems

9543 Commercial Building Trades 2

Consists of 9574 Structural Systems and 9575 Structural Coverings and Finishings

Location: Willoughby-Eastlake Career Academy, Willoughby

Students will learn the skills necessary to meet the demand for a skilled work force in the field of construction. The program includes the fundamentals of construction safety, blueprint reading, site preparation, and training in carpentry, plumbing, wiring, roofing, drywall installation, and painting through project-based learning. The program provides basic skills in a variety of building trades. Career opportunities include carpenter, plumber, electrician, roofer, painter, general contractor.

CNC Manufacturing Technology

999717 CNC Manufacturing Technology 1
999716 CNC Manufacturing Technology 2
Location: Mentor/Lakeland

The CNC Manufacturing Program is designed to prepare students to learn about the manufacturing process from the design to the finished product. Students will learn CAD drawing techniques; use of measurement tools and hand tools; CNC set up and operation; CNC programming; SURFCAM software; 3-D solid modeling, geometry and trigonometry applications; quality control principles; and precision turning and milling.

Computer Information Systems

9510 Computer Information Systems 1
9610 Computer Information Systems 2
Location: **Mentor/Lakeland**

This program is designed to prepare students for high technology careers by blending academic and technical subjects that emphasize problem-solving and critical thinking skills. Knowledge and skills include basic computer literacy, essential technology skills (IT Academy, Microsoft Office), programming logic and design, programming in HTML, VB and C and C++, computer hardware, maintenance and troubleshooting, system design and analysis, project management, network operations, operating systems, basic business operations and employability skills.

The rapid growth of computer technology has created an increased demand for skilled personnel. This program provides the student with the necessary skills for entry-level employment and/or post-secondary training in the computer field. The curriculum is designed to prepare interested students for continuing their education by earning certifications at the professional level after high school which include MOUS, CompTia A+ and Visual Basic. Successful completers can earn articulated credit through Lakeland Community College.

Construction Management

9811 Construction Management 1
9812 Construction Management 2
Location: Mentor/Lakeland

The Construction Management program is a high school and college career path linked to business, industry and lab that insures a seamless pathway from high school to college to careers in Construction Management. It provides technical preparation in a career field such as engineering technology and applies science, mechanical, industrial and practical arts to the trades. The program provides a broad survey of multiple construction technology fields, prepares the student for advanced studies and training in a specific construction apprenticeship program, and introduces the technical competencies of the construction management area. Knowledge and skills include shop and job site safety, hand tool, stationary and portable power tool use, surveying foundation layout, surveying figure grade, estimating, spreadsheets, ArtCAM and CAD/CAM programs, drawing residential homes, critical thinking, developing procedure sheets, designing, estimating, procuring and building a piece of furniture and employability skills. Articulated credit is available to successful completers through Lakeland Community College. Career opportunities for students who complete this program include: general contractor, bridge construction superintendent, senior project manager, construction expeditor and estimator.

Cosmetology
9518 Cosmetology 1
9618 Cosmetology 2
Location: Willoughby-Eastlake Career Academy, Willoughby
The Cosmetology two-year program is designed to introduce students to fundamental training and experiences needed for successful Ohio State Board of Cosmetology licensing. The knowledge and skills include sanitation procedures, anatomy and physiology, basic chemistry, business management, hair care procedures, skin care, nail care, salon safety procedures, English composition,-a 120-hour salon internship and professional ethics. Upon successful completion of the two-year program and the accumulation of 1500 hours, students are eligible to take the State Board of Cosmetology Examination for a cosmetology license. College credit is available to successful completers through Lakeland Community College.

Criminal Justice
9562 Criminal Justice 1
9692 Criminal Justice 2
Location: Euclid High School
The two-year Criminal Justice Program provides training for students in the basic fundamentals needed in criminal law and court procedures. Instruction is given in matters involving the constitutional rights of individuals and proper criminal investigative techniques. Other areas of training include rules of evidence, criminal law, the justice system and the Ohio criminal code. Knowledge and skills also include legal and ethical responsibilities, terrorism and homeland security, emergency telecommunications, patrol and terrorism. During laboratory classes, students receive instruction in all phases of crime scene processing, photography, fingerprinting, and other related areas of investigation. Career opportunities in criminal justice include: police, parole, security or corrections officer, private investigator, police dispatcher, park ranger, hospital security and industrial security. Successful completers can earn college credit through Lakeland Community College.

Culinary Arts
9545 Culinary Arts 1
9645 Culinary Arts 2
Location: Euclid Shore Cultural Center
The Culinary Arts Program offers training in food-related occupations to juniors and seniors with interest in and aptitude for the food service industry. Juniors will be introduced to the food industry, basic cooking, equipment, safety and sanitation, pastas, breads, food presentation, restaurant preparation and other topics. Seniors will learn about stocks, sauces, soups, meats, poultry, seafood, salads, dressings, menu planning and restaurant operation. Culinary Arts students are able to take ServSafe and ProStart COA certifications. Articulated credit is available to successful completers.

Early Childhood Education

9540 Early Childhood Education 1
9672 Early Childhood Education 2
Location: Mentor High School

Students in this program may attend Mentor High School all day for both academics and the program. Juniors have the option of taking some courses at their home high school. English is taught in collaboration with the Early Childhood Program. Graduation is from student's home school.

The two-year Early Childhood Education Program provides opportunities for students to learn how children develop physically, socially, emotionally, behaviorally and mentally. During the first year of the program the students participate in a supervised in-school laboratory where they have the opportunity to observe the development of children in a preschool program conducted at Mentor High School. Students are responsible for planning a variety of experiences for the preschool children in music, art, science, literature and other activities, which contribute to the optimum development of children. The guidance and development of the normal child is emphasized during this year of the program.

During the second year of the program students are placed on jobs in the community, working as assistants in programs for normal and exceptional children. Under the direction of the coordinator and supervising teacher, students plan a variety of experiences for children of various ages and abilities. The guidance and development of the exceptional child is emphasized during this year of the program. College credit is available to successful completers through Lakeland Community College.

Career opportunities for students who complete this program include: day care programs, preschools, elementary schools, Headstart Programs, latch key programs, and teacher's aides. With further education, students can pursue the following careers: child development, special education, speech therapy, elementary education, physical therapy, or social worker.

Health Information Management (Health Informatics)

9638 Health Information Management 1

Consists of 9567 Data and Use and 9568 Transforming Data into Information

9639 Health Information Management 2

Consists of 9569 Transforming Information into Knowledge and 9570 Problems and Solutions

Location: Willoughby-Eastlake Career Academy, Eastlake

Health Information Management, aka Health Informatics, is a fast-growing career in the healthcare pathway. Ideally it is the fusion of healthcare, information technology, and business administration and guides their integration into different aspects of the healthcare sector at both the individual and population levels. It incorporates collecting, analyzing, and using data to make informed decisions regarding the healthcare system as well as to improve the efficiency of it. Students work through healthcare-based scenarios in this project-based learning environment to complete projects that will improve how information and technology in the healthcare system is discovered, delivered, and utilized. Career opportunities include data analyst, clinical researcher, public health nurse, risk manager of a hospital system, hospital network administrator, epidemiologist, blood bank coordinator, electronic medical records, and insurance underwriter.

Career Explorations

9439 Career Explorations

Location: Willoughby-Eastlake Career Academy, Willoughby

Career Explorations emphasizes development of entry-level employability skills in order for students to be successful in the workplace. Training is designed to enhance each individual student/worker's potential. Under supervision, students receive hands-on real work experiences while developing at their own pace. The goal for all students is to develop safety skills, knowledge, attitudes and job skills in order to get and keep a job. Classroom instruction and learning activities focus on basic skills and attitudes often associated with assembly production work, specific skill work and department team work. Some students may develop sufficient job skills that allow them to transfer to another career program for more advanced skill training.

Career opportunities for students include: machine operator, shipping and receiving clerk, production assembler, quality control inspector, laundry room assistant and maintenance assistant.

Hospitality and Lodging

6409 Hospitality and Lodging 1
64099 Hospitality and Lodging 2
Location: Willoughby-Eastlake Career Academy, Willoughby

This class will prepare individuals for entry level employment and post-secondary education in pathways that relate to hospitality management, restaurant and food/beverage services, lodging services, travel and tourism, recreation, amusement, and attractions. Guest speakers from the industry and field experiences are included in regular class time. Seniors are permitted to work second semester during program hours with permission and proper paperwork completed. Certifications available through this program include: Guest Service Gold (American Hotel and Lodging Educational Institute), Workplace Safety and Health (National Institute for Occupational Safety and Health), Person in Charge (Lake County Health Dept.), and Teenage Restaurant Worker Safety (Occupational Health and Safety Administration). Topics include customer service, lodging occupations, food safety & sanitation, food/beverage/restaurants, housekeeping & laundry, hospitality marketing, entrepreneurship, travel services, front office operations, event planning, sports & entertainment jobs, and sales. Successful completers may be eligible to receive five college semester hours through Lakeland Community College.

Information Technology Services

9711 Information Technology Services 1
9713 Information Technology Services 2
Location: Mentor/Lakeland

This program prepares high school students to pursue an Associate Degree (2-year) in Information Technology or for a career at the entry level in a wide range of computer technologies. Students are transported to Lakeland Community College for English, Applied Physics, and for the technical component of the program. All other academic subjects are taken at the student's home school.

An Information Technology Services technician builds, evaluates, troubleshoots and maintains computers, networks and electronic products and systems by utilizing specialized skills and equipment to ensure product quality. ITS knowledge and skills include computer hardware and component subsystems, operating system installation and support, end user education and training, selection, use and support of computer applications, business industry support and practices, network essentials and business practices, project management, information technology resource optimization and professional business skills. Students can apply for industry credentialing, including CompTIA A+ and Certiport IC3. College credit is available to successful completers through Lakeland Community College.

Interactive Media
9516 Interactive Media 1
9616 Interactive Media 2
Location: Mentor High School
Students in this program may attend Mentor High School all day for both academics and the program. Students have the option of taking some classes at their home high school. English is taught with Interactive Media Program. Graduation is from the student's home school. The course prepares students for entry-level jobs in interactive media production and for entrance into a 2-year college, an advanced art college or a university. Students learn television production, computer graphics, graphic design for production, recording, digital imaging, digital audio technology, photography, studio equipment maintenance, web page design, content research, application/instruction design, and writing for interactive media.

Upon completion of this program students may enter an art school, a 2-year college or a 4-year college/university. The rapid growth of computer technology has increased the demand for skilled workers in this field. College credit is available to successful completers through Lakeland Community College.

Job Training Program
94399 Job Training Program
Location: Willoughby-Eastlake Career Academy, Willoughby
The Job Training Program (JTP) emphasizes development of entry-level employability skills in order for students to be successful in the workplace. Training is designed to enhance each individual student/worker's potential. Under supervision, students receive hands-on real world experiences while developing at their own pace. Some training is done in class, while other work is done on job location sites. Students may participate in a group setting or participate in a one-on-one internship with our Project Assistant. The goal for all students is to develop safety skills, knowledge, attitudes and job skills in order to get and keep a job. Classroom instruction and learning activities focus on basic skills and attitudes often associated with assembly production work, specific skill work, and department team work.

Career opportunities for students include: machine operator, shipping and receiving clerk, production assembler, quality control inspector, laundry room assistant and maintenance assistant.

Landscape and Turf Management

9546 Landscape and Turf Management 1

Consists of 9576 Plant & Horticulture Science and 9577 Landscape Design

9547 Landscape and Turf Management 2

Consists of 9578 Landscape Hardscapes, 9530 Landscape Systems Management, and 9531 Turf Science and Management

Location: North High School

This program will provide opportunities for students to apply their creativity to the natural environment of plants and landscaping and will also provide an introduction to the Green industry. Students will gain skills in plant physiology, plant control, landscape design, identification and selection of landscape plants, establishment and maintenance of landscape and turf areas, design and installation of 'hardscapes' (lighting, water systems, features) and operation of machinery and equipment. Students will also have an opportunity to design, select, and construct landscapes as well as to manage and maintain turf areas. Career opportunities include landscape architect, golf course greens keeper, landscaper, and grounds maintenance.

Licensed Practical Nursing

9634 Licensed Practical Nursing 1

9635 Licensed Practical Nursing 2

Location: Willoughby-Eastlake Career Academy, Eastlake (Kennedy)

This unique **2-year** program is approved by the Ohio Board of Nursing, North Central Association of Colleges and Schools, and the Ohio Department of Career and Technical Education. It is 1 of only 4 high school nursing programs in the state of Ohio. It progresses from the simple to complex in theory, skills and clinical practice. Some of the courses include: fundamentals of nursing which includes a skill lab component, body and structure, nutrition, professional relationships, pharmacology and medical/surgical nursing. Clinical experience is correlated with theory and is provided at Lake Health Systems, Inc., LakeMed Nursing and Rehabilitation Center, Gateway Retirement Community, Waterford at Richmond Heights, Lake County MRDD, and Breckenridge Village.

Upon successful completion of the nursing course, the graduate takes the Ohio Board of Nursing examination which provides licensure for the graduate. Once licensed, the graduate nurse is able to provide comprehensive total nursing care to people of all ages. College credit is available to successful completers.

ADMISSION REQUIREMENTS:

1. Passage of a pre-entrance exam with a proficient score. Proficient scores generally indicate a moderate level of overall academic preparedness necessary to support learning of nursing-related content.
2. Minimum cumulative GPA of 3.0 through first semester of sophomore year

Managerial Business Technology

9409 Managerial Business Technology 1

Consists of 9551 Business Foundations and 9552 Fundamentals of Business & Administrative Services

94099 Managerial Business Technology 2

Consists of 9553 Management Principles and 9554 Office Management

Location: Willoughby-Eastlake Career Academy, Willoughby

Managerial Business Technology is designed to train students in the basic fundamental operations of a business. Students work on individualized projects in a simulated business setting. The knowledge and skills covered include Microsoft software, leadership skills, management skills, analysis of the business environment, risk assessment, strategic planning, internal controls for business, employability skills, recordkeeping, business office communication skills, money and personal finance, and records management. Students utilize the SAM (Skills Assessment Manager) to prepare for the Microsoft Business Specialist (MOS) certification. Career opportunities for students who complete this program include: office manager, administrative assistant, general office assistant, data entry clerk, accounts payable or accounts receivable clerk and receptionist. Successful completers may earn up to eight (8) semester hours through Lakeland Community College.

Marketing and Entrepreneurship

9520 Marketing and Entrepreneurship 1

9620 Marketing and Entrepreneurship 2

Location: Mentor High School

1 credit junior year; 4 credits senior year

Students in this program may attend Mentor High School all day for both academics and the program. Juniors have the option of taking some classes at their home high school. English is taught in collaboration with the Marketing and Entrepreneurship Program. Graduation is from the student's home school.

Marketing and Entrepreneurship is a 2-year program. Junior year, students take a 1-period marketing-related class. Senior year, students take a 1-period marketing-related class with a work experience component. Marketing knowledge and skills include accounting/finance, advertising and public relations, business administration, international business, business owner/entrepreneurship, fashion merchandising, hotel/resort management, information technology, sales/marketing, sports marketing/management and travel and tourism. Program certifications include certified eMarketer, National Retail Federation, and Sales and Marketing Executives International. Successful completers can earn college credit through both Lakeland Community College and Cuyahoga Community College.

Medical Assisting

9632 Medical Assisting 1

Consists of 9538 Medical & Dental Office Technology, 9564 Patient Centered Care, and 9539 Human Anatomy and Physiology

9633 Medical Assisting 2

Consists of 9540 Lifespan Development and Medical Intervention, 9566 Medical Terminology and 9541 Clinical Laboratory Techniques

Location: Willoughby-Eastlake Career Academy, Eastlake (Kennedy)

The Medical Assisting Program is designed to prepare students to handle both the clinical duties and administrative responsibilities in a medical setting. Students learn anatomy and physiology, medical office protocol, vital signs, and patient care. Medical terminology, medical ethics, office skills, and basic patient care are included. Classroom and clinical settings offer a variety of opportunities for learning.

Successful completers may earn up to six (6) college credits through Lakeland Community College.

Mobile Apps and Digital Development

999512 MAD2 Level 1

999612 MAD2 Level 2

Location: Euclid High School

The Mobile Apps and Digital Development (MAD^2) Program is designed to help students prepare for careers that deal with Computer and Mobile Applications, Information Technology, Multimedia and Image Management Techniques, Systems Analysis and Design, and Web Design and Development. This course will use a simulated business environment to help students better understand how to analyze computer information systems (eg. a payroll system or a work schedule), build multimedia web pages for different browsers, develop computer and mobile apps for multiple platforms using E-commerce principles, and understand information technology concepts that are necessary in the world of computers. By using a simulated business environment, students will learn and utilize technology that is used in all facets of the industry and professional worlds. Other essential skill areas include, but are not limited to computer hardware/troubleshooting, information security, cloud computing, programming, database management, operating systems, and employability skills. Skills acquired will assist students in pursuing professional certifications (MOS, MTA, CompTiaA+). Possible occupations include computer programmer, computer support specialist, computer systems analyst, database administrator, graphic designer, mobile app or software developer, and web developer. Students who successfully complete the program may earn up to 10 college semester hours through Lakeland Community College.

Production Welding

9449 Production Welding 1

Consists of 9555 Gas Metal Arc Welding and 9556 Shielded Metal Arc Welding

94499 Production Welding 2

Consists of 9557 Flux Cored Arc Welding and 9558 Gas Tungsten Arc Welding

Location: North High School

In the Production Welding Program, first-year students will learn fundamental welding and safety skills needed to reach the goal of employment in the welding trades. Skills include ARC, MIG,TIG, Oxy-fuel welding and cutting and Plasma torch cutting. Shop safety and use of basic shop tools and equipment are learned and students use these skills to fabricate and repair projects in class. Second-year students refine their skills and focus on areas of interest. Career opportunities for students who successfully complete the program include factory and production welder and welder fitter. Production welding also gives students an opportunity to receive college credits through a partnership with Lakeland Community College.

Visual Communications

9595 Visual Communications 1

9695 Visual Communications 2

Location: Euclid High School

This 2-year program is intended for students who wish to explore the possibility of a career in visual design and computer imaging. During the junior year emphasis is placed on the development of proficiency in basic art skills such as drawing, calligraphy, layout, and illustration using various techniques and media. Students become proficient in the use of InDesignCS2 and PhotoshopCS3 to create graphic pieces. In the senior year students work on various design projects and prepare a visual portfolio, business card and resume. Students who complete this program either go on to an art college or work in areas such as advertising, illustration, book or CD cover design, computer graphics, greeting card design, or sign display. Successful completers can earn college credit through Lakeland Community College.

Welding

9527 Welding 1

Consists of 9555 Gas Metal Arc Welding and 9556 Shielded Metal Arc Welding

9627 Welding 2

Consists of 9557 Flux Cored Arc Welding and 9558 Gas Tungsten Arc Welding

Location: Willoughby-Eastlake Career Academy, Willoughby

This two-year program trains students in SMAW, GMAW, GTAW, FCAW-GS, CAC, blueprint reading and shop safety. Students are taught the same skills that are taught at the Lincoln School of Welding. Related classroom instruction is also an important part of the Welding program. In related class, students learn the scientific theories and principles of welding as well as information on fabrication and welding different alloys. Blueprint reading and layout skills along with mathematics and other job skills are part of the related class. Community Service projects are stressed. Opportunities for trained welders include millwright welder, fabrication welder, tack welder, pipe welder, welding inspector and welding equipment tender. Successful completers may earn up to 16 semester hours of credit through Lakeland Community College.

Opportunities for trained welders include millwright welder, factory welder, production welder, fabrication welder, tack welder, pipe welder, skilled trade welder, welding inspector and welding equipment tender.

******All Level II programs have the prerequisite of Successful completion of Level I.**

Course Descriptions related to CTE

9530 Landscape Systems Management

Subject Code: 010615

Students will learn methods for establishing and managing landscapes to promote growth and balance. The classification and care of woody and herbaceous landscape plants will be learned. Students will learn to optimize growing conditions, balance nutrients, and manage pests and disease. They will apply proper planting, fertilizing, and pruning techniques while safely operating well-maintained specialized equipment. Throughout the course, students will assess implications of landscape installation on the environment and will employ communication, business, and management strategies.

9531 Turf Science and Management

Subject Code: 010635

Students will apply principles of science, engineering, and business to support the establishment and maintenance of residential, athletic and recreational turf. Students will learn techniques for the establishment, care, production, and marketing of turf grass along with safe operation and maintenance of specialized equipment. Throughout the course, environmental awareness and conservation practices will be emphasized along with communication, business, and management strategies appropriate for the industry.

9532 Ground Transportation Maintenance

Subject Code: 177000

In this first course, students will apply skills needed to inspect and perform general service on vehicles. Students will research applicable service information and technical service bulletins and perform maintenance on vehicles. Students will inspect and service engine, drive train, suspension, steering, electrical and braking systems. Students will perform ignition maintenance including spark plug/glow plug and ignition wire and coil pack replacement. Additionally, students change fluids and filters and inspect vehicles for leaks and fluid condition.

9533 Automotive Braking, Suspension, and Steering Systems

Subject Code: 177003

Students will perform inspections, troubleshoot malfunctions and service automotive undercarriage systems. Students will identify poor performing hydraulic brake systems and replace malfunctioning components. Students will install coil and leaf springs, shock absorbers and struts, and replace wheel bearings. Students will inspect and replace automotive steering components and perform wheel alignments. Additionally, students will disable and enable supplemental restraint systems (SRS) and will replace antilock brake systems components.

9534 Ground Transportation Engine and Power Train

Subject Code: 177001

Students will inspect, adjust and repair internal combustion engines and drivetrains. Topics include physical and mechanical principles of engines, transmissions and transaxles, differentials and cooling systems. Students will learn precision measurement, inspection, and reconditioning techniques. Students will also identify customer's needs, determine labor rates, and create estimates.

9535 Ground Transportation Electrical/Electronics

Subject Code: 177002

Student will diagnose and repair vehicle electrical systems, including chassis electrical, charging, starting and lighting systems. Students will learn the fundamentals of direct current (DC) electronics including series, parallel, and series parallel circuits. Students will use electronic diagnostic tools, read schematics, and utilize printed and electronic repair manuals to troubleshoot electrical circuits, test components and replace defective modules.

9536 Sports/Recreational Power Systems

Subject Code: 177008

Students learn principles and skills to maintain and repair sports/recreational vehicles. Students will inspect, diagnose, and repair engine, drive train, and suspension systems. Students remove, disassemble, and repair components in engine cylinder head and block assemblies. Students inspect, adjust and repair drivetrain systems including shaft and chain drive components. Additionally, students will inspect, adjust and replace suspension components including shocks, seals and springs. Students will maintain and adjust systems specific to specialized vehicles.

9537 Automotive Engine Performance

Subject Code: 177006

Students will research vehicle service histories using model specific service bulletins. Students will test and diagnose for engine performance in fuel, air induction and exhaust systems using advanced testing procedures. Topics include computerized engine controls including retrieving and recording diagnostic trouble codes using On Board Diagnostics (OBD). Additionally, students will diagnose drivability and emissions problems resulting from malfunctions of interrelated systems.

9538 Medical and Dental Office Technology

Subject Code: 072155

Students will apply fundamental principles of communication, leadership, technology and management as it applies to the medical office setting. Students will demonstrate documentation and record keeping procedures set forth by national accrediting organizations.

9539 Human Anatomy and Physiology

Subject Code: 072040

In this course, students will demonstrate knowledge of body systems with emphasis on the interrelationships between structure and physical function. Students will analyze and evaluate how the body systems respond to physical activity, disease, and aging. Students will use data acquisition software to monitor abnormal physiology and body functions (e.g., muscle movement, reflex, respiratory, and voluntary actions). Further, students will analyze descriptive results of abnormal physiology and evaluate clinical consequences.

9540 Lifespan Development and Medical Intervention

Subject Code: 072060

Students gain necessary skills and knowledge to meet the needs of individuals from infancy through the human life cycle in a safe, legal, and ethical manner using the nursing process. Topics include physical, psychological, and cultural variations associated with maturing and aging. Emphasis will be placed on regulatory compliance, patient assessment, patient safety, and medical interventions. Additionally, students use psychomotor nursing skills to assist in day-to-day patient care activities.

9541 Clinical Laboratory Techniques

Subject Code: 072100

Students will apply practical application of a wide range of clinical duties. Topics covered will include hematology, urinalysis, hematopoiesis processes, body chemistry, microbiology, and blood typing. Students will perform laboratory exercises illustrating principles of the cell and human physiology. Emphasis is given to safe handling, collection procedures, and preparation of specimens. Additionally, students will correlate and document clinical findings and maintain quality management in a clinical laboratory.

9551 Business Foundations

Subject Code: 141000

This is the first course for the Business and Administrative Services, Finance and Marketing career fields. It introduces students to specializations within the three career fields. Students will obtain knowledge and skills in fundamental business activities. They will acquire knowledge of business processes, economics and business relationships. Students will use technology to synthesize and share business information. Employability skills, leadership and communications and personal financial literacy will be addressed.

9552 Fundamentals of Business and Administrative Services

Subject Code: 142000

This is the first course specific to the Business and Administrative Services career field. It introduces students to the specializations offered in Business and Administrative Services. Students will obtain fundamental knowledge and skills in general management, human resources management, operations management, business informatics and office management. They will acquire knowledge of business operations, business relationships, resource management, process management and financial principles. Students will use technological tools and applications to develop business insights.

9553 Management Principles

Subject Code: 141025

Students will apply management and motivation theories to plan, organize and direct staff toward goal achievement. They will learn to manage a workforce, lead change, and build relationships with employees and customers. Students will use technology to analyze the internal and external business environment, determine trends impacting business, and examine risks threatening organizational success. Ethical challenges, project management and strategic planning will also be addressed.

9554 Office Management
Subject Code: 142005
Students will apply techniques used to manage people and information in a business environment. Students will learn to build relationships with clients, employees, peers and stakeholders and to assist new employees. They will manage business records, gather and disseminate information, and preserve critical artifacts. They will also examine contracts, internal controls and compliance requirements. Business office tools and applications will be emphasized.

9555 Gas Metal Arc Welding
Subject Code: 176000
Students will use the Gas Metal Arc Welding process (GMAW) to join various types of metal. They will cut metals using oxy-fuel processes and perform multiple types of welds and joints in all positions up to and including overhead. They will select the appropriate type of electrode wire, shielding gas and adjust welding equipment based on the physical characteristics and metal properties. Students will apply quality control factors to evaluate weld quality.

9556 Shielded Metal Arc Welding
Subject Code: 176001
Students will be able to use the Shielded Metal Arc Welding process (SMAW) to join various types of metal. They will perform multiple types of welds and joints in all positions up to and including overhead. They will select the appropriate type of electrode and adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply their quality control factors to evaluate the quality of welds.

9557 Flux Cored Arc Welding
Subject Code: 176002
Students will be able to safely use the Flux Cored Arc Welding process (FCAW) to join various types of metal. They will perform multiple types of welds in all positions up to overhead. They will select the appropriate type of cored electrode and adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply their understanding of quality control factors to evaluate the quality of welds.

9558 Gas Tungsten Arc Welding
Subject Code: 176003
Students will use the Gas Tungsten Arc Welding process (GTAW) to join various types of metal. They will perform multiple types of welds and joints in all positions up to and including overhead. They will select the appropriate type of electrode, filler metal and shielding gas and be able to adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply quality control factors to evaluate weld quality.

9559 Collision Structural Inspection & Repair

Subject Code: 177010

Students will perform automotive collision repair of full and unibody frames and attach non-structural components. Students will apply the skills and knowledge needed to measure and diagnose structural damage, create a parts list, and determine labor costs. Students will remove and replace damaged structural components. Emphasis will be given to joining and cutting aluminum, steel and other metals. Students will maintain tools and facilities while complying with personal and environmental safety practices.

9560 Collision Nonstructural Inspection & Repair

Subject Code: 177011

Students will learn the skills and knowledge of automotive body panel repairs, replacements, and adjustments. Students will analyze, document and repair nonstructural collision damage. Students will remove corrosion protection, undercoating, sealer, and other protective coatings as necessary to perform repairs. Emphasis will be given to joining and cutting aluminum, steel and other metals. Students will maintain tools and facilities while complying with personal and environmental safety practices.

9561 Collision Painting & Refinishing

Subject Code: 177012

Students will restore and refinish vehicle exterior body and paint finish. Students will inspect and identify substrate, type of finish, surface condition, and film thickness and will develop and execute a plan for refinishing using a total product system. Students will inspect, clean, and determine condition of spray guns and related equipment. Additionally, students will observe safety precautions when using hazardous materials.

9562 Collision Electrical & Mechanical Systems

Subject Code: 177009

Students will perform inspections and repair electrical and mechanical damage due to collision. Topics include electrical and wiring harness, suspension, and braking and cooling system repairs. Students will service supplemental restraint systems (SRS) and ensure the integrity of the systems.

9563 Principles of Allied Health

Subject Code: 072035

In this first course students will apply knowledge and clinical skills necessary to assess, plan, provide, and evaluate care to patients in varied healthcare settings. Students will apply first aid principles and techniques needed for response to choking, cardiopulmonary resuscitation, and other life-threatening emergencies. Emphasis will be placed on regulatory compliance, patient safety, pathophysiology, and medical interventions. Additionally, this course introduces psychomotor skills needed to assist individuals in meeting basic human needs.

9564 Patient Centered Care

Subject Code: 072050

Students will apply psychomotor nursing skills needed to assist individuals in meeting basic human needs. Students will implement interventions following a nursing assistant plan of care. Students will collect patient's vital signs including temperature, pulse rate, respiration rate, and blood pressure. Students will perform phlebotomy procedures with emphasis on infection prevention, universal precautions, proper patient identification, specimen acquisition, handling, and processing. Additionally, students will observe patients' physical, mental, and emotional conditions and document any change.

9565 Pharmacology

Subject Code: 072085

Students will apply the principles of pharmacology in order to read, interpret and dispense prescriptions. They will learn how medications are classified and administered. Students will study the impact of drugs on different systems of the body, interaction of drugs, side effects and effectiveness in relation to dosages.

9566 Medical Terminology

Subject Code: 072150

This course focuses on the applications of the rules for constructing and defining medical terms with an emphasis on building a working medical vocabulary. Topics include using the appropriate abbreviations and symbols for anatomical, physiological and pathological classifications and the associated medical specialties and procedures. Students will decipher medical terms by identifying and using word elements with an emphasis on derivation, meaning, and pronunciation. Further, students will interpret and translate medical records and documents.

9567 Data and Use

Subject Code 072160

This foundational course focuses on the use of data and databases within the health field. Students learn what are data, how it is used and sources of data in the medical and health informatics field. They learn how to make sense of data and how data can be applied to our lives. Students will have the opportunity to interact with professionals in the health informatics field.

9568 Transforming Data into Information

Subject Code 072165

Students learn how to use data to address both patient and industry needs in the health-care field. Students use software to collect and analyze data, to develop a health-care registry, to create a mobile app mockup and to develop forms and systems to solve health-care problems. They will learn how technology can be used to create better information to inform decision making, to create information from data, to improve public and individual health and to protect patient privacy.

9569 Transforming Information into Knowledge

Subject Code: 072170

This advanced course allows students to make improvements in the health-care field by designing solutions using the information, knowledge and technology tools available to health informatics professionals. Students are engaged in the following activities: building a system of sharing information among health-care facilities; using social media tools to reduce diseases in foreign countries; exploring voice recognition software; using a motion-based video gaming console for rehabilitation; and exploring clinical decision rules for improving patient care.

9570 Problems and Solutions

Subject Code: 072175

In this advanced course, students study and design solutions to problems facing health-care systems. Students learn how the health-care system can work more efficiently and economically, how health-care issues in rural locations can be addressed and how various community organizations work together to improve the health of the community. Students will have the opportunity to interact with professionals in the health informatics fields**.**

9571 Construction Technology – Core and Sustainable Construction

Subject Code: 178000

Students will learn principles in basic safety (10-hr OSHA), construction math, hand and power tools and operation, blueprint reading, material handling, communication and employability skills. An emphasis will be placed on safe and green construction practices.

9572 Carpentry and Masonry Technical Skills

Subject Code: 178001

This first course in the pathway will introduce to students the materials, methods, and equipment used in carpentry and masonry. Students will organize a project work sequence by interpreting plans and diagrams within a construction drawing set. They will layout and install basic wall, floor and roof applications. Students will perform introductory concrete applications including formwork, reinforcement, mixing, and finishing. Current advancements in technology, safety, applicable code requirements and correct practices are learned.

9573 Mechanical, Electrical and Plumbing Systems

Subject Code: 178002

Students learn physical principles and fundamental skills across mechanical systems in construction. Students will select materials, assemble, and test basic electrical circuits. Students will select materials and assemble simple copper and plastic plumbing applications for both supply and drains. They will perform simple maintenance of electric motors, electric fixtures and plumbing fixtures. Students will be able to select and install basic ductwork components and learn the operation and maintenance of heating and cooling equipment.

9574 Structural Systems
Subject Code: 178003
Students will learn procedures and techniques required for layout and framing of walls and ceilings, including roughing-in door and window openings, constructing corners and partitions; bracing walls and ceilings; and applying sheathing. Students will learn methods of roof, cold formed steel, and wood stair framing. Students will learn site and personal safety, material properties, design procedures, and code requirements for structural systems.

9575 Structural Coverings and Finishes
Subject Code: 178004
This course will address applications of interior and exterior finish work. Students will identify material properties and select for appropriate application. Students will install thermal and moisture protection including roofing, siding, fascia and soffits, gutters, and louvers. Students will install drywall, trim-joinery and molding and apply wall, floor and ceiling coverings and finishes. Throughout the course, the safe handling of materials, personal safety, prevention of accidents and the mitigation of hazards are emphasized.

9576 Plant and Horticultural Science
Subject Code: 010155
This first course in the pathway focuses on the knowledge and skills required to research, develop, produce and market agricultural, horticultural, and native plants and plant products. Students will apply principles of plant physiology and anatomy, plant protection and health, reproductive biology in plants, plant nutrition and disorders to the management of soils and plants. Throughout the course, students will learn communication, leadership, and business management skills reflective of the industry.

9577 Landscape Design
Subject Code: 010630
Students will learn skills in creating blueprints, estimates and landscaping designs. Topics include basic principles of design, engineering, drawing and drafting techniques including the use of technology such as computer-aided design. Students will incorporate principles of hardscapes and examine the use of artificial lighting, water systems, and creative features in their designs. Throughout the course, business management practices, employability skills, and safety procedures will also be emphasized.

9578 Landscape Hardscapes
Subject Code: Pending
Students will learn skills in constructing and installing hardscape features in a landscape. Topics include basic principles of building and implementing designs drawn and drafted from computer-aided designs and blueprints. Students will install artificial lighting, water systems, deck and creative concrete features on job sites. Throughout the course, business management practices, employability skills, and safety procedures will also be emphasized.

Willoughby-Eastlake CCP Offerings w/ Lakeland Community College
Students must meet CCP eligibility requirements (**see page 12**). Courses are offered within each high school and are taught by W-E teachers who maintain adjunct professor status. Students earn **BOTH** high school **AND** college credit (see pages 12-15 for more information about CCP).

CCP Offerings – Fall 2015 (1st semester)	CCP Offerings – Spring 2016 (2nd semester)
ACCT 1100 Intro to Financial Accounting	ACCT 1200 Intro to Managerial Accounting
ENGL 1110 English Composition I (A)	ENGL 1120 English Composition II
MATH 1650 College Algebra	MATH 1700 Trigonometry
POLS 1300 US National Government	POLS 2100 State and Local Government
POLS 2200 Introduction to International Relations	

ACCT 1100 Intro to Financial Accounting 4 Semester Hours (1st semester)
This course examines financial accounting and reporting with emphasis on analysis and interpretation from a user perspective. The course covers the accounting principles underlying the accounting cycle, income measurement using accrual accounting, asset valuation, ratio analysis, and cash flow. Students will study the major components of the financial statements included in the corporation annual report.

ACCT 1200 – Intro to Managerial Accounting 3 Semester Hours (2nd semester)
This course examines managerial accounting tools and techniques used by decision makers to help make an organization's operations more effective and efficient. Students will apply basic managerial accounting concepts to problems of management planning, control, decision making, and performance evaluation. Topics covered include job order cost and analysis, process cost and analysis, activity-based cost and analysis, variable cost, cost behavior and cost volume-profit analysis, budgeting, standards cost, relevant cost, and capital budgeting. **Prerequisite: ACCT 1100**

ENGL 1110 English Composition I (A) 3 Semester Hours (1st semester)
This course focuses on the writing process and on the composition of expository writing assignments, including personal, informational, and critical essays. Students will read and analyze expository and imaginative texts (fiction, nonfiction, poetry, or drama). Because of duplication in course content, students who have taken ENGL 1111 English Composition I (B) should not take this course.
Prerequisite: Placement Test

ENGL 1120 English Composition II 3 Semester Hours (2nd semester)
This course analyzes argumentative strategies, models, and texts. Students will focus on the research process: identifying sources through electronic and print-based research strategies, evaluating research materials, and integrating and synthesizing research material. The course culminates in the production of a fully documented argumentative paper. **Prerequisite: ENGL 1110 or ENGL 1111**

MATH 1650 College Algebra 4 Semester Hours (1st semester)
This course uses an integrated laboratory and lecture approach to investigate and solve relations and functions numerically, analytically, and graphically. Topics include solutions of polynomial, rational, exponential, and logarithmic equations and inequalities; systems of linear and non-linear equations; matrix solutions, determinants, conic sections, sequences and series, and mathematical modeling. Students must supply a graphing calculator. **Prerequisite: MATH 0950 or Placement Test**

MATH 1700 Trigonometry 3 Semester Hours (2nd semester)
This course includes the study of trigonometric functions and inverse trigonometric functions and their graphs; solutions of right and oblique triangles and their applications; solutions of trigonometric equations and inequalities; the use of identities, vectors, and complex numbers; and solutions of polar equations and parametric equations. Students must supply a graphing calculator. **Prerequisite: MATH 1650 or Placement Test**

POLS 1300 US National Government 3 Semester Hours (1st semester)
This course provides an examination of the formation, structure, processes and fundamental political principles of the United States political system, including the development of the Constitution and the federal system, civil rights and liberties, public opinion and political participation, political parties and interest groups, the role of money and the media in the political system, political campaigns and elections, Congress and the legislative process, the presidency, and the federal judiciary. It focuses not only on the achievements of the political system but on its shortcomings as well, thus leading to consideration of the political challenges facing the system and suggestions for reform.

POLS 2100 State and Local Government 3 Semester Hours (2nd semester)
This course provides a survey of the organization, processes, powers, and responsibilities of state and local government in the United States, with special reference to Ohio. Topics include national-state and state-local relations, state constitutions and municipal charters, political participation, parties and special interests, and the basic institutions of government comprising the legislative, executive, and judicial branches. The course also considers various types of local governments and the problems of metropolitan government. Policy issues examined include education, welfare, and law enforcement policy, as well as budgeting and finance at the state and local levels. Students must conduct a field assignment in their communities.

POLS 2200 Introduction to International Relations 2 Semester Hours (1st semester)
This course examines the origin, nature, and development of the post-Cold War international system. Basic concepts include state, nation, power, sovereignty, nationalism, national interest, security, and balance of power. The course examines the major governmental and nongovernmental state and international factors influencing international relations, as well as the primary issues of the modern international system. It also considers strategies for enhancing international security and peace, diplomacy, international trade, nuclear and conventional military power, and international law and government.

STUDENT PLANNING DOCUMENTS

NONDISCRIMINATION POLICY: The Willoughby-Eastlake City Schools comply with the Rules and Regulations as set forth in Title IX implementing the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973. Complaints from students will follow a three-step procedure: 1) grievance filed initially with the building administrator (or designee) with notification to the Title IX compliance officer, 2) review by the appropriate director, and 3) appeal to the compliance officer.

The following documents should be completed by each student with the support of parents/guardians and a guidance counselor. Each student is encouraged to complete these forms in pencil, as they are intended to be organic documents which grow or adjust as a student progresses through school. An electronic version of these documents is also available on the district website: www.weschools.org

My Four-Year Planning Guide

Grade 9			
1st Semester		**2nd Semester**	
English		English	
Math		Math	
Science		Science	
Social Studies		Social Studies	
Computer		Computer	
PE		PE	
Elective		Elective	
Elective		Elective	
Elective		Elective	

Total Credits Earned: _____

Grade 10			
1st Semester		**2nd Semester**	
English		English	
Math		Math	
Science		Science	
Social Studies		Social Studies	
Computer		Computer	
PE		PE	
Health		Health	
Elective		Elective	
Elective		Elective	

Total Credits Earned: _____

(Fall Administration) PSAT Scores:

Critical Reading: _____ **Math: _____** **Writing: _____**

Grade 11			
1st Semester		**2nd Semester**	
English		English	
Math		Math	
Science		Science	
Social Studies		Social Studies	
Computer		Computer	
PE		PE	
Health		Health	
Elective		Elective	
Elective		Elective	

Total Credits Earned: _____

(Fall or Spring Administration Recommended) ACT Scores:

English:_____ Math:_____ Reading:_____ Science:_____ Writing:_____ Composite:_____

(Spring Administration Recommended) SAT Scores:

Critical Reading:_____ Writing:_____ Math:_____ Optional Subject Score(s):_____

Grade 12			
1st Semester		**2nd Semester**	
English		English	
Math		Math	
Science		Science	
Social Studies		Social Studies	
Computer		Computer	
PE		PE	
Health		Health	
Elective		Elective	
Elective		Elective	

Total Credits Earned: _____

Students are encouraged to refer to pages 5-6 for Graduation Requirements and page 9 for Eligibility Requirements.

(Fall Administration Recommended) ACT Scores:

English:_____ Math:_____ Reading:_____ Science:_____ Writing:_____ Composite:_____

CR	ACADEMIC DECATHLON	
1	1110	Academic Decathlon

CR	FINE ARTS	
1	7405	Art I
1	7406	Art II
1	7502	Art II
1	7602	Art IV
.5*	7407	Ceramics I
.5*	7507	Ceramics II
1	7411/7413	Exploring Visual Art & Music
.5*	7408	Graphic Design I
1	7401	Symphonic Band
1	7403	Wind Symphony
1	7412	Mixed Choir
1	7512	Concert Choir
1	7503	Music Theory & Harmony

CR	BUSINESS	
.5*	5301	Personal Finance
.5*	5411	Keyboarding & Doc. Format.
.5*	5412	Bus. Communication Info. Tech.
1	5502	Accounting
.5*	5500	Introduction to Business
.5*	5503	Entrepreneurship
.5*	5505	Business Law
.5*	5506	International Business

CR	COMPUTER EDUCATION	
.5*	3900	Computer Science I
.5*	3901	Computer Science II
.5*	3902	Programming
.5*	3903	Multimedia Communications
.5*	3904	HTML Web/JavaScript
1	3905	Honors Computer Science
.5*	3907	Computer Aided Design 2D-3D

CR	ENGLISH	
1	0301	English I
1	0310	English I Honors
1	0401	English II
1	0421	English II Honors
1	0522	English III
1	0531	English III Honors
1	0532	AP Eng. Language
1	0621	AP Eng. Literature
1	0622	English IV
1	0631	English IV Honors
.5*	0500	Speech /Oral Interpretation
.5*	0510	Publications
.5*	0511	Drama/Theater
.5*	0613	Writing for College I
.5*	0614	Writing for College II (NHS only)
.5*	0800	ACT/SAT Prep

CR	FAMILY & CONSUMER SCIENCES	
.5*	1001	Senior Mentoring (SHS only)
.5*	6402	Creative Cook
.5*	6502	Food for Fitness
.5*	6503	Teen and Adult Roles
.5*	6506	Independent Living
.5*	6508	Child Development
.5*	1300	Career Explorations I

CR	FOREIGN LANGUAGE	
1	4301	French I
1	4401	French II
1	4501	French III
1	4601	French IV Honors
1	4701	French V Honors
1	4304	Spanish I
1	4404	Spanish II
1	4504	Spanish III
1	4604	Spanish IV Honors
1	4704	Spanish V Honors
1	4302	German I (NHS only)
1	4402	German II (NHS only)
1	4502	German III (NHS only)
1	4602	German IV (NHS only)

CR	HEALTH AND P.E.	
.25*	8301	P.E. I
.5*	8401	Health
.25*	8402	P.E. II
.5*	8602	Social Relations (NHS only)

CR	INDUSTRIAL TECHNOLOGY	
		NHS only
.5*	6406	Wood Technology
.5*	6407	Power Technology
.5*	6408	Drafting Communications
.5*	6410	Indoor Home Repair/Maint.
.5*	6414	Outdoor Home Repair/Maint.
.5*	6507	Engineering Communication
.5*	6510	Architectural Drawing

CR	MATH	
.5*	3089	Algebra I Connections
.5*	3090	Algebra II Connections
1	3091	Honors Geometry
1	3093	Algebra I
1	3101	Honors Algebra II/Trig
1	3103	Geometry
1	3123	Pre-Calculus
1	3111	Honors Pre-Calculus
1	3124	Financial Algebra
1	3113	Algebra II
1	3121	AP Calculus AB
1	3126	AP Calculus BC
1	3122	Introduction to College Math
1	3125	AP Statistics
.5*	3128	Sports Statistics

CR	SCIENCE	
1	2302	Physical Science
.5*	2304	Current Issues & Trends in Science
1	2401	Honors Biology
1	2403	General Biology
1	2421	Environmental Science
1	2423	AP Environmental Science
1	2500	Honors Chemistry
1	2507	General Chemistry
.25*	2555	Science OGT
.25*	2556	Science OGT
1	2602	Physics
1	2621	AP Biology
1	2631	AP Chemistry
1	2641	AP Physics 1
1	2605	AP Physics 2
.5*	2642	Forensic Science
.5*	2643	Astronomy
1	2645	Human Anatomy and Physiology

CR	SOCIAL STUDIES	
1	1315	World History& Civilizations
1	1316	Honors World History & Civilizations
1	1402	US History
1	1403	Honors US History
.5*	1502	Sociology
.5*	1503	Psychology
1	1504	AP Psychology
1	1506	US Government
1	1621	AP US History
1	1623	AP US Gov. & Politics
.5*	1624	Senior Seminar Post WW II Era
.5*	1625	Senior Seminar Modern Era
.5*	1727	Theory of Economics I
.5*	1728	Theory of Economics II
1	1622	European History
1	1626	AP European History