Curriculum Guide
2019-2020

Township High School District 211

United States Department of Education Blue Ribbon Schools of Excellence
James B. Conant High School
William Fremd High School
Hoffman Estates High School
Palatine High School
Schaumburg High School

Alternative Schools
District 211 North Campus
Higgins Education Center
Township High School District 211
Mission Statement

Township High School District 211 serves the educational needs of the community inspiring all students to successfully contribute to the world.

Township High School District 211
Board of Education

Robert LeFevre, Jr., President
Anna Klimkowicz, Vice President
Edward Yung, Secretary
Kimberly Cavill
Peter Dombrowski
Daniel E. Cates, Superintendent

If you require assistance while using a District 211 school, please contact the principal’s office.
For individuals who are deaf or hard of hearing, please access the following TTD/TTY telephone number: (847) 755-6654.
Superintendent’s Message


Dr. Daniel E. Cates

In Township High School District 211, we are proud to offer a comprehensive high school experience with more than 700 unique courses offering a range of opportunities for every student. For those who plan to pursue college or university studies, through our partnerships with Harper College and Northern Illinois University, we offer an ever-expanding curriculum designed to better prepare our students for life beyond our schools. To that end, we are pleased to offer these advanced educational programs:

• **Power of 15:** In an effort to smooth the transition from high school to college, District 211 encourages students to strive to graduate with a minimum of 15 credit hours toward future degrees. These credit hours are earned through a variety of sources, including dual credit and advanced placement courses.

• **Dual Credit Courses:** Through a partnership with higher educational institutions including Harper College, University of Illinois, College of DuPage, and others, District 211 offers students more than 60 dual credit courses. More than half of these are taught within District 211 schools by District 211 teachers who have earned the additional credentials required to teach at the collegiate level. While transfer of credits are at the discretion of the institution the student attends, many courses have an Illinois Articulation Initiative designation. This designation puts them in line with an agreement among more than 100 colleges and universities in Illinois making the courses transferable.

• **Advanced Placement Courses:** Currently, more than 4,000 students throughout District 211 have enrolled in Advanced Placement (AP) courses. These students have the possibility to earn a variety of financial and academic advantages as they advance to a college or university that may include earned college credit for the courses. District 211 offers AP courses in Art History, Studio Art, Music Theory, Biology, Chemistry, Physics, Environmental Studies, Calculus, Literature and Composition, Language and Composition, Spanish, German, French, U.S. History, European History, World History, Human Geography, Economics, Statistics, Psychology, U.S. Government and Politics, and Computer Science.

• **Business Degree in Three:** One of the District’s newer programs built to aid students in post-high school education is the Business Degree in Three program. This program creates a pipeline from District 211 through Harper College to Northern Illinois University, with structured coursework that allows students to earn one of eight business degrees from NIU in three years following high school graduation.

Through these various programs and partnerships, District 211 has worked to prepare students for their post-high school choices. Courses such as dual credit and Advanced Placement allow students to take college-level coursework while still having the close working relationship with their high school teachers. By earning course hours prior to graduation, the financial burden of college can be greatly reduced for students and parents.

Daniel E. Cates
Superintendent
Introduction

This Curriculum Guide is designed to help students plan their programs of study from the variety of courses offered in Township High School District 211. Students should plan their high school programs with the help of their parents, counselors, and teachers. In this guide, each course is described by level of instruction, length of course, specific prerequisite, and credit value. Courses offered off-campus are so noted. In addition to the course descriptions, this guide provides information about graduation requirements, grading, student services, summer school, and other areas of interest. This Curriculum Guide is intended to assist students and parents in making educational decisions about high school programs. Course offerings are subject to enrollment and slight variations may occur from school to school. A student’s counselor is always the best source for the most up-to-date information regarding course selection.

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Student Services

Each school has a Student Services Department consisting of counselors, psychologists, social workers, speech and language therapists, a school nurse, and special education teachers. Staff members give students individual and group help in adjusting to their lives.

Each student is assigned a counselor upon entering high school. The counselor meets with each student at least twice a year, although students may see their counselor more often. Parents may meet with their student’s counselor by appointment during school hours.

A comprehensive testing program is in place to assist students in understanding their aptitudes, interests, and special abilities. Major test dates are provided in each school’s Calendar/Handbook. Counselors interpret test results to students and parents. A college and career resource center, which is available to students and parents, provides information on college programs, scholarships, employment opportunities, trade and technical school programs, military services, occupational opportunities, and specialized educational and vocational programs. A computer software system which contains occupational, college, and financial aid information is available to all students. A career counselor coordinates activities to help students develop appropriate career goals. A counselor who has received special training as a college consultant is available to provide families with specific college and financial aid information.

Psychologists and social workers provide services to students and/or their families and serve as liaisons between school and community agencies. In addition, the psychologist conducts individual psychological evaluations and interprets results to students, parents, and school staff. A speech and language therapist and school nurse are available in each school to provide appropriate services to students.

Special education programs, designed to meet all state and federal mandates, are available for students with special needs. Special education teachers are trained to work with physically, mentally, and behaviorally challenged students. These teachers provide supplemental instruction to students in the regular classroom and special instruction to students whose educational needs require a modified program. Teaching assistants work with classroom teachers to extend additional assistance to students.

Course Selection & Registration

Beginning in November, counselors and teachers assist students in the selection of courses for the following year. Parents are encouraged to contact their student’s counselor to assist in this process. A list of courses selected by the student is made available for review and approval in spring. Changes in courses selected may be made up to the date indicated on this list. Courses will only run if minimum enrollment guidelines are met.

Subject level placement of incoming freshmen is based on the results of placement tests and the recommendations of junior high school teachers. Placement of students already enrolled in high school is based upon previous performance and the recommendations of their teachers.

Students must register for the equivalent of four full-credit subjects plus physical education. However, most students register for five full-credit courses plus physical education.

Student Course Acceleration

Most courses listed in this Guide have prerequisites for enrollment. Prerequisites are designed to inform students and parents of the background knowledge and skills important for successful completion of a course and should be reviewed before registering.

District 211 encourages every student to strive to reach his/her maximum educational potential. In some cases, a student may wish to register in a course for which prerequisites have not been met in order to accelerate that student’s academic progress. Success in this situation is dependent upon the degree of student motivation; a clear understanding of the challenges that will be presented in the course; and a collaborative approach by the student, parents, and teacher.

Any student who wishes to register for a course without meeting the prerequisites is encouraged to discuss course requirements and content with the student’s counselor and the department chair or teacher.
Grading & Reporting

Student grades are reported by semesters. Each semester is made up of 18 weeks. Parents are informed of their student’s progress at 6- and 12-week intervals. The 6-and 12-week in-progress grades may include special comments from the teacher. The final examination at the end of each semester is worth 20 percent of the semester grade. Semester grades are recorded on each student’s permanent record. Parents of students having difficulty or doing unsatisfactory work are urged to meet with teachers and/or the student’s counselor to discuss improvement options. Specific dates of all student reports are in each school’s Calendar/Handbook.

Additionally, all parents may view the status of their students in classes in which the teacher is using the Infinite Campus Parent Portal by logging on at http://campus.d211.org/campus/portal/township.jsp.

General Grading Information

The following is an explanation of the grading scale used on the report cards:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A superior grade for exceptional or outstanding work.</td>
</tr>
<tr>
<td>B</td>
<td>An excellent and commendable grade for an above average degree of accuracy and knowledge of the subject.</td>
</tr>
<tr>
<td>C</td>
<td>An average grade for an adequate and satisfactory performance.</td>
</tr>
<tr>
<td>D</td>
<td>A passing grade for below average work.</td>
</tr>
<tr>
<td>E</td>
<td>A passing grade for demonstrating maximum effort and/or minimum skills.</td>
</tr>
<tr>
<td>AUD</td>
<td>Special permission to take a course for no grade and no credit.</td>
</tr>
<tr>
<td>EXC</td>
<td>Excused for the grading period and/or from taking the semester examination. Credit for the course may depend on any existing grades earned during the course.</td>
</tr>
<tr>
<td>PASS</td>
<td>A passing grade for a course taken on a Pass/Fail basis. Credit is given, but no grade point is recorded.</td>
</tr>
<tr>
<td>FAIL</td>
<td>A failing grade for a course taken on a Pass/Fail basis. No credit is given and no grade point is recorded.</td>
</tr>
<tr>
<td>W/P</td>
<td>Withdrew from course with passing grade. No credit is given and no grade point is recorded.</td>
</tr>
<tr>
<td>W/F</td>
<td>Withdrew from course with failing grade. No credit is given and the grade point reduction will be recorded.</td>
</tr>
<tr>
<td>INC</td>
<td>Required work is incomplete. Students should discuss the situation with their teachers as soon as possible.</td>
</tr>
<tr>
<td>–</td>
<td>Following a letter grade indicates a “minus”. “C–” means a low “C” grade.</td>
</tr>
<tr>
<td>+</td>
<td>Following a letter grade indicates “plus”. “C+” means a high “C” grade.</td>
</tr>
</tbody>
</table>

Seeing all possibilities, seeing all that can be done, and how it can be done, marks the power of imagination. Your imagination stands as your own personal laboratory. Here you can rehearse the possibilities, map out plans, and visualize overcoming obstacles. Imagination turns possibilities into reality.

- Author unknown
Semester grades are determined from grades recorded for daily class discussion, written assignments, special projects, and examinations. Grades are based on how well students meet established course standards.

Grades of “INC” will be given unless students do all basic assignments such as term papers, themes, special reports, book reviews, daily written assignments, community service projects, and all examinations. Students who are incomplete at the end of the semester, except for those with recent illness, will not be allowed to take the semester examination at its scheduled time and may fail the course unless work is made up by a designated time.

Juniors and seniors may choose to take one elective subject each semester on a “pass/fail” grade basis. “Pass/Fail” petitions must be signed and on file within the first twenty-five (25) school days of each semester. Once students choose “pass/fail” they may not change that option after the twenty-seventh (27th) school day of the semester. College admissions personnel recommend that students pursue a rigorous academic program for college admission. Generally, colleges do not recommend that high school students take a major academic subject on a pass-fail basis. College-bound students should confer with their counselors before taking a course pass/fail.

In order to be eligible for interscholastic athletics and competitive activities, a student must meet both Illinois High School Association and District 211 academic and personal conduct standards.

An honor roll is announced for each semester. Students with an unweighted semester grade point average of 3.5 (A average) or better are placed in the high honors group. Students with grade point averages of 3.0 to 3.5 (B average) are placed in the honors group. In computing honor roll, grade points are assigned according to a 4-point system (A=4 points; B=3 points; C=2 points; D=1 point; and E and F=0 points). Grades in junior/senior physical education, pass/fail courses, and driver education are not given grade points and are not considered in the grade point average. Students taking accelerated and/or honors courses receive a weighted boost for each semester. A weighted grade point average is recorded each semester and is used for college admissions and academic scholar status purposes only. Weighted grade points do not affect in-school honors.

**Requirements for Graduation**

Complete 20 units of credit:

1. Successfully complete:
   a. One unit of United States History
   b. One unit of Social Science Survey or 1/2 unit each of Government and Economics
   c. Three years of mathematics course work is required, with successful completion of a 300-level course.
      One of the three required units must be Algebra I, and one unit must include Geometry content.
   d. Two units of science (1 year — Biological Science / 1 year — Physical Science)
   e. One unit of art, world language, music, or career and technical education (Applied Technology, Business Education, Family and Consumer Sciences)
   f. Four units of English
   g. Two years of writing-intensive courses, one of which must be English.
   h. One-half unit of Consumer Education/Management (or equivalent)
   i. One-half unit of Health (ending with the class of 2021)
   j. Physical education credit for each semester of attendance (or equivalent). Beginning with the class of 2022, two units of Wellness which incorporates physical education and health education

2. Complete 30 hours of instruction in safety education (Driver Education classroom instruction)

3. Pass a qualifying examination on the State and Federal Constitutions, Declaration of Independence, use of the American flag, and the Australian (secret ballot) method of voting

4. Participate in State testing at an appropriate level

**Special Policies Regarding Credits**

1. Students may drop an elective course after the first semester and receive one-half credit. However, one semester of a one-year course may not meet college entrance requirements.

2. Students electing to take a fifth subject may drop a fifth subject no later than the twenty-fifth (25th) school day of the semester. A student who drops a fifth subject after the deadline will be assigned a compulsory study hall and will receive either a W/P or W/F.
The chart above compares the academic expectations of various post-high school opportunities available to graduates. It is intended only as a general guide. Colleges expect a student to program at least four core academic subjects into each year. These college preparatory subjects are: English, world language, mathematics, science, and social studies. Highly selective institutions require greater numbers of these core academics.

Counselors act as resource people; however, many specific questions are better directed to the college or university admissions staff. Final admissions decisions are always up to the colleges. They are usually based on the number of academic courses and the grade point average in those courses as well as the student’s scores on standardized admissions tests (ACT, SAT).

Requirements for admission to individual colleges and universities vary. Students who cannot maintain a “C” grade average (2.0) in high school may have some difficulty qualifying for college entrance. Some colleges may admit students with lower grade point averages, but who score well on entrance exams.

**College Admission Testing**

Most public colleges and universities in the Midwest, including all Illinois state universities and most community colleges, require the ACT or SAT as part of the admissions process.

**Advanced Placement**

Township High School District 211 offers courses designed to help students receive college advanced placement credit by examination. Each year, Advanced Placement tests are administered to qualified students in May. Many colleges also give college credit through the College Level Examination Program (CLEP).
NCAA Initial Eligibility for Student-Athletes

Students interested in participating in college athletics at the NCAA Division I or II level must meet the NCAA freshman eligibility standards. Initial eligibility is determined by NCAA from three high school factors: core course completion, test scores, and grade-point average. NCAA Division I and II require 16 core courses. Detailed information regarding freshman eligibility criteria is available on the NCAA Eligibility Center website.

The primary responsibility of a high school in relationship to a freshman athlete’s certification is to ensure that the school’s list of approved core courses is accurate and up to date. Only courses in the areas of English, mathematics, science, social studies and world language can be considered for core course approval. Approved Core Courses for all District 211 high schools are listed on the NCAA Eligibility Center website at www.ncaaclearinghouse.net. Additionally, these approved courses are listed below and have been denoted in this guide with an NCAA designation within the course description.

List of Approved Core Courses (Form 48H) for all Township High School District 211 schools:

<table>
<thead>
<tr>
<th>English 1</th>
<th>Fundamentals of Speech</th>
<th>Algebra 1</th>
<th>Adv Algebra</th>
<th>Calculus</th>
<th>Ind Math</th>
<th>French 1</th>
<th>German 1</th>
<th>Spanish 1</th>
<th>Enrich</th>
<th>Spanish 1</th>
<th>Enrich</th>
</tr>
</thead>
<tbody>
<tr>
<td>E101</td>
<td>E603</td>
<td>M114</td>
<td>M117</td>
<td>M147</td>
<td>M588</td>
<td>M647</td>
<td>S131</td>
<td>S137</td>
<td>S138</td>
<td>S221</td>
<td>S237</td>
</tr>
<tr>
<td>E102</td>
<td>E605</td>
<td>M214</td>
<td>M217</td>
<td>M218</td>
<td>M647</td>
<td>S131</td>
<td>L252</td>
<td>L252</td>
<td>L252</td>
<td>S221</td>
<td>L327</td>
</tr>
<tr>
<td>E151</td>
<td>G146</td>
<td>M296</td>
<td>M308</td>
<td>M314</td>
<td>S332</td>
<td>S333</td>
<td>L665</td>
<td>L665</td>
<td>L665</td>
<td>S221</td>
<td>L757</td>
</tr>
<tr>
<td>E201</td>
<td>G161</td>
<td>M317</td>
<td>M318</td>
<td>M328</td>
<td>S334</td>
<td>S336</td>
<td>L665</td>
<td>L665</td>
<td>L665</td>
<td>S221</td>
<td>L757</td>
</tr>
<tr>
<td>E204</td>
<td>G236</td>
<td>M330</td>
<td>M348</td>
<td>M356</td>
<td>S335</td>
<td>S337</td>
<td>L665</td>
<td>L665</td>
<td>L665</td>
<td>S221</td>
<td>L757</td>
</tr>
<tr>
<td>E205</td>
<td>G262</td>
<td>M357</td>
<td>M368</td>
<td>M376</td>
<td>S336</td>
<td>S338</td>
<td>L665</td>
<td>L665</td>
<td>L665</td>
<td>S221</td>
<td>L757</td>
</tr>
<tr>
<td>E209</td>
<td>G395</td>
<td>M392</td>
<td>M393</td>
<td>M400</td>
<td>S343</td>
<td>S344</td>
<td>L665</td>
<td>L665</td>
<td>L665</td>
<td>S221</td>
<td>L757</td>
</tr>
</tbody>
</table>

Student-athletes interested in pursuing athletic opportunities in college should discuss their interest with parents, coaches, and counselors. Prospective student-athletes must register with the NCAA Eligibility Center and meet academic eligibility standards as determined by NCAA. Complete details are available at www.ncaa.org or www.ncaaeligibilitycenter.org.
Elective Courses

In addition to offering courses that meet high school graduation requirements, most departments offer elective courses that, if taken, assist a student with college admission requirements or other post-secondary academic preparation. Further, elective courses offer the student the opportunity to pursue special interest areas within the curriculum. Advanced Placement courses are available in many academic departments, including portfolio assessment in Art. Work/study opportunities are available in Applied Technology, Business Education, Family and Consumer Sciences, and Special Education.

Dual Credit Program

Selected courses in the curriculum have been designated as “dual” or “articulated credit.” These courses, designated as 600-level courses, are offered as part of a curriculum collaboration with Harper College or other colleges as indicated. Dual credit allows a student to earn both college and high school credit simultaneously. Certain restrictions apply to these courses and interested students should see their high school counselor for details.

Additional information regarding how dual credit coursework may transfer to a variety of colleges can be found at Transferology.com.

Course Placement

Results of aptitude and achievement tests and teachers’ recommendations are used by counselors to place individual students in courses. Students in general level courses who do work above “C” may be transferred to a regular level section of a course. Students in accelerated or honors level courses who earn “C” or lower are usually recommended for movement to a regular level section.

Entrance into the District Gifted Education Program is determined by performance on freshman placement tests and teacher recommendation. Based on this information, approximately five percent of incoming freshmen are invited into the gifted program. Please contact the student services director for information about the program and selection procedures.

Coding of Courses

A letter and three digits precede each course title in this curriculum guide. The letter indicates the department and the last digit indicates levels of ability. Letter designations of each department are as follows:

- A — Art
- B — Business Education
- C — Music
- E — English
- G — Social Studies
- H — Family and Consumer Sciences
- L — World Language
- M — Mathematics
- P — Physical Education/Driver Education/Health Education
- R — Non-Departmental
- S — Science
- T — Applied Technology
- V — Vocational
- W — Harper College campus
- 0 — Courses designed to strengthen basic fundamentals, skills, and concepts.
- 1 — General education courses designed to improve skills while presenting a complete curriculum.
- 2-7 — Regular education courses designed for most students, including those who plan on entering programs of advanced education or training after graduation.
- 8 — Honors courses for students whose aptitude and achievement qualify them for intensive study at an increased pace.
- 9 — Advanced Placement and Honors courses for the academically talented. Students in these courses are encouraged to take Advanced Placement tests which are the focus of A.P. level courses.

As an example; E101 is a general level English course, E102 is a regular level English course, and E108 is an accelerated English course.
**Summer School**

An annual summer school is available to all Township High School District 211 students, who may enroll for one or more of the following reasons:

1. To take courses that could not be scheduled during the regular school year.
2. To repeat a failed course or to take a different course to make up credit lost by failure.
3. To repeat a course for a higher grade (“C” is our lowest recommended grade on transcripts to colleges. The original course grade will be noted on the transcript.)
4. To give incoming freshmen and students between freshman and sophomore year the opportunity to take courses which qualify them for more advanced work (Enrollment in these classes is through recommendation and invitation by the student services director, and enrollment may be required for some students.)
5. To earn credit for early graduation or to meet additional graduation requirements.

**Credit**

A student may earn a maximum of one academic unit of credit during the session and an additional one-fourth unit of credit in physical education per semester. Wellness is assigned one-half credits per semester.

**Study Requirements**

Each day of a summer class is equal to five day’s work during the regular school year. Students must make up work immediately after an absence. Arranging for making up work is the student’s responsibility.

**Attendance**

Since summer school is a concentrated program, regular attendance is required. Students absent the first two days of school will not be admitted into class in that semester. To receive credit, a student must be present on the last day of each summer school semester. A student who accumulates three days of absence in a semester will lose credit and forfeit fees. A tardy (arriving within one hour of the school starting time) is recorded as one-half day of absence. If a student is more than one hour late, a full absence will be charged. Students arriving late or leaving early must check in or out at the summer school office. Summer vacations should not be scheduled during the summer school period.

**School Regulations**

Summer school is an academic enrichment program for students who desire additional learning opportunities. Rules are enforced to consistently maintain an atmosphere conducive to learning. A student may be dismissed from summer school immediately for tobacco use, truancy, excessive tardiness, controlled substance abuse, and acts of gross misconduct. There will be no exceptions to the rules of conduct or attendance. Dismissal from summer school will result in forfeiture of credit and fees.

**Alternative High School**

Residents of Township High School District 211 age 17 and over who have not completed high school and are no longer enrolled in school may earn a diploma in the evening at the Alternative High School. Classes are held Monday through Thursday evenings during the school year. For information and fee structure, contact the Continuing Education Office at (847) 755-6722.

**Evening Make-Up Courses**

High School District 211 offers several evening make-up courses for seniors who need them for graduation. Students should consult their counselor for information regarding these courses.
Applied Technology (cont’d.)

**Electronics**

- **T174/T674**
  - Electronics Technology 1
  - 1 Unit
  - Levels 1,2,3,4

- **T276**
  - Electronics Technology 2
  - 1 Unit
  - Levels 2,3,4

- **T377**
  - Electronics Independent Study
  - 1 Unit
  - Levels 3,4

- **T477**
  - Electronics Independent Study
  - 1 Unit
  - Levels 3,4

**PLTW Engineering**

- **T202**
  - PLTW Introduction to Engineering Design
  - 1 Unit
  - Levels 1,2,3,4

- **T302**
  - PLTW Principles of Engineering
  - 1 Unit
  - Levels 2,3,4

- **T408/T608**
  - PLTW Digital Electronics
  - 1 Unit
  - Levels 3,4

- **T418**
  - PLTW Civil Engineering & Architecture
  - 1 Unit
  - Levels 3,4

- **T428**
  - PLTW Bioengineering & Environmental Sustainability
  - 1 Unit
  - Levels 3,4

- **T438**
  - PLTW Computer Integrated Manufacturing
  - 1 Unit
  - Levels 3,4
Applied Technology courses are designed to give students an exposure to technical environments and their applications in the modern work world. Through careful selection, students may explore areas of career interest. Many courses in the Applied Technology field are accepted as electives for college admission.

**T130 Applied Technology Exploration**  
**LEVEL:** 1,2  
**One year**  
**One unit**  
**PREREQUISITE:** Placement through staff conference recommendation.  
This course is designed to help students with special needs acquire skills to be successful. Emphasis will be placed on basics such as: organizational skills, measuring, reading working drawings, shop safety, basic math, tool identification and usage, and following a sequential plan of action. This class is organized to provide for small group and individualized instruction with class projects varying depending on student's abilities.

**T134 Engine & Power Technology**  
**LEVEL:** 1,2,3,4  
**One-half year**  
**One-half unit**  
Students will gain an understanding of the operation of piston engines, basic electrical circuits, hydraulic, and pneumatic principles with emphasis on small engine repair. Hands-on experience includes the opportunity to participate in the repair of a variety of small engines.  
**Recommended but not a prerequisite for T235.**

**T144 Manufacturing Technology**  
**LEVEL:** 1,2,3,4  
**One-half year**  
**One-half unit**  
Manufacturing Technology is a lab oriented class in which several materials including wood, metal, and plastic will be used for both custom-made and mass produced products. Students will use a variety of hand and power tools as they learn about modern production technology.  
**Recommended but not a prerequisite for T244/T642.**

**T166 Architecture, Animation and Engineering Design I**  
**LEVEL:** 1,2,3,4  
**One year**  
**One unit**  
In the T166 course, students will be exposed to three different content areas: engineering, architecture, and animation. Students will be using Autodesk Inventor to learn about engineering drafting in both 2D and 3D environments. Students will create, develop, and test the function of their designs within the engineering software. Students will utilize Chief Architect for the architectural portion of the class in which they will focus on residential floor plan design. Students will learn about traffic flow, the three main areas of a home, proper design of homes, building codes and many other architecture related topics. Finally, in animation students will use Autodesk 3D Studio Max in which they will create animations of their creations they developed in both engineering and architecture. This will include students creating several short length animations. Course prepares students for Autodesk Certification Test.

**T174/T67402 Electronics Technology 1**  
**LEVEL:** 1,2,3,4  
**One year**  
**One unit**  
This course is designed for students interested in electronics technology, digital communications, audio technology, industrial technology applications, and electronic design. Students will study safety, basic components and symbols, electrical fundamentals, instrumentation, circuit analysis, semiconductor applications, and digital technology. Students will assemble and analyze electronic circuits including power supplies, oscillators, amplifiers, and digital circuits. Emphasis is placed on problem solving and teamwork in a lab environment.  
**T67402: Harper College Course ELT110, Introductory Electronics, 4 college credit hours.**

**T202 PLTW Introduction to Engineering Design**  
**LEVEL:** 1,2,3,4  
**One year**  
**One unit**  
**PREREQUISITE:** Concurrent enrollment in M117 Algebra 1 or higher or department chair recommendation.  
The Project Lead the Way (PLTW) course, Introduction to Engineering Design, is an interdisciplinary study with an emphasis placed on learning the design development process. Students utilize their creativity to collaborate with other students through distance learning projects. In this course students develop the essential skills that engineers rely on everyday such as patent research, working with team members, hand-sketching, and proper engineering documentation with team members. Students apply the Design Loop to innovate and invent products in a continuous improvement model. State of the art technology including Autodesk's Inventor, ANSYS, 3D Printing and ShopBot industrial automation, is used to allow students an opportunity to create prototypes and mock-ups of their individual and team solutions. With successful completion of end-of-course assessment, student may obtain college credit.

**T235 Automotive Technology 1**  
**LEVEL:** 2,3,4  
**One year**  
**One unit**  
Auto Technology 1 covers theory of operation and care of the basic components of the modern automobile. Areas of study include engines and engine systems, brakes, and suspensions. Hands-on activities consist of working with actual automotive parts and work on live cars. This course is a prerequisite for T336 Auto Technology 2 and stresses entry level job skills. It is recommended for students interested in becoming an automotive technician, as well as for those who wish to learn basic automotive repair for personal use.  
**ASE Certification and Program.**
T244/T64201/T64202
Advanced Manufacturing Technology Level 1

LEVEL: 2,3,4
One year
One unit

Students will work towards industry standard certifications in the area of precision machining based on the National Institute of Metalworking Skills (NIMS). Students will develop the skill set and knowledge that employers want when hiring people in the manufacturing industry. Students will be prepared to take NIMS credential tests in: 1) Measurement, materials, and safety 2) CNC Operator: Milling Level 1 and 3) CNC Operator: Turning Level 1. Students will be learning and operating industry standard Computerized Numerical Control machines that cut steel. NIMS operates under rigorous and highly disciplined processes as the only developer of American National Standards for the nation’s metalworking industry accredited by the American National Standards Institute (ANSI). Students will learn concepts in the Manufacturing Skills Standards Council curriculum in the four areas: Safety, Measurement & Continuous Improvement, Manufacturing Processes and Maintenance Awareness.

Harper College MFT105 (T64201) Machine Processes I, 2 college credit hours; MFT120 (T64202) Machine Processes II, 3 college credit hours.

T245 Woodworking Technology

LEVEL: 2,3,4
(Level 1 with instructor approval)
One year
One unit

Woodworking Technology is designed for the beginning to intermediate student. This one-year course includes instructional units in safety, layout and measurement, equipment and processes, cabinet making, furniture construction, lathe turning, and career/consumer awareness. These hands-on units are geared for preparing students for future courses as well as helpful household knowledge of wood working procedures. Project material fees are required and vary with the various project selections.

T266 Architecture, Animation & Engineering II

LEVEL: 1,2,3,4
One year
One unit

PREREQUISITE: Computer Aided Drafting and Graphics T166
In the T266 course, students will further their knowledge in the three content areas: architecture, engineering, and animation. The first semester will be broken down into a series of 6 week sessions, touching base on each of the three content areas. The engineering session focuses on complex assemblies and specialty views. The architecture session focuses on architectural home styles, the reading of plan sets, and framing. The animation session focuses on continuing students’ ability to model, set cameras, and create more detailed short length animations. During second semester students are able to pursue the field of their choice. During this period students will continue to advance their knowledge working on student-selected large scale projects. Course content allows preparation for Autodesk Certification test.

T276 Electronics Technology 2

LEVEL: 2,3,4
One year
One unit

PREREQUISITE: Successful completion of T174 Electronics Technology 1 and C or higher in M114 Algebra 1 or instructor’s approval
Students will become familiar with analyzing, aligning, troubleshooting, and servicing most common types of electronic circuits. They will study areas of electronics such as amplification, solid-state circuitry, digital circuitry, FM stereo, and basic problem solving techniques. Students will build advanced projects and analyze and evaluate a variety of laboratory experiments. Emphasis is on the theory of electronic circuits and a systematic approach to troubleshooting.

T273/T67301/T67302
Computer Repair

LEVEL: 2,3,4
One year
One unit

PREREQUISITE: M117 Algebra or equivalent; T272/T672 (summer school) recommended.
This course is designed for students interested in computer repair. Students will have hands on experience servicing Windows-based computers. Areas of computer study include: construction, disassembly and assembly, installation and configuration of operating systems, modifying and upgrading of circuits, MS-DOS, Windows, and utilities. Students will have learning opportunities in the areas of: safety and preventative maintenance, removal and installation of field replaceable units, backing up and restoring files, configuration and utilization of video circuits, Windows, modems, I/O addresses, interrupt request lines, direct memory access, network interface cards, network connections, and the diagnosing/troubleshooting of malfunctioning systems. Completion of this course will prepare students to earn Comp TIA A+ certification. T67301/02:
Harper College NET 111, A+ Hardware, 3 college credits; NET 112 Operating Systems Technologies, 3 college credits.
T296 Geometry in Construction  LEVEL: 2,3  One unit
The purpose of this course is to have students experience putting geometry into action by building real world construction projects. Geometry in Construction is taught by both Math and Applied Technology teachers. This interdisciplinary course integrates geometry and construction topics through the building of significant construction projects. The goal is to provide students with a better understanding of both the geometry and the construction content taught in the Math department and prepares students for the subsequent Math courses. Students will gain hands-on, real-world experience in different areas of construction. Additional emphasis is given to teamwork, problem-solving, and the promotion of employable attributes. This is a double-period course that offers both a Math credit and an Applied Technology credit.

T302 PLTW Principles of Engineering  LEVEL: 2,3,4  One unit
PREREQUISITE: T202 Introduction to Engineering Design or Department Chair approval
PLTW Principles of Engineering is the course that follows T202 Introduction to Engineering Design in the Project Lead the Way sequence. This course uses project-based, hands-on experiences to teach students the key elements and skills of engineering and technology-based careers. Concepts in this course include communication and documentation, design processes, engineering systems, statics and strength of materials, materials and material testing in engineering, engineering for reliability, and kinematics. This course explores technology systems and manufacturing processes and addresses the social and political consequences of technological change. The applications of physics, trigonometry, and applied sciences are integrated in the course to solve engineering problems. Autodesk Inventor is a computer aided design (CAD) program that will be utilized to assist in completion of projects. With successful completion of course assessment, student may obtain college credit.

T336/T63602 Automotive Technology 2  LEVEL: 3,4  One unit
PREREQUISITE: Successful completion of T235 Auto Technology 1
Auto Technology 2 deals with testing, adjustment, repair and replacement of various components of the automobile. Students study troubleshooting and the use of test equipment including engine analyzers, computer scanners, pressure testers, and emission analyzers. They gain experience in engine mechanical diagnosis and servicing, fuel injection and emission control service, electrical testing, brake repair, alignment, transmission work, and air conditioning service. Time will be split between classroom and lab activities. Students may bring vehicles into the lab for maintenance, testing, and repair when related to planning class activities. ASK Certification and Program. T63602: Triton College Course AUT112, Intro to Auto Tech, 3 college credits.

T344/T64301/T64302 Advanced Manufacturing Technology Level 2  LEVEL: 3,4  One unit
PREREQUISITE: Successful completion of T244 Advanced Manufacturing Technology 1
Students will work towards industry standard certifications in the area of precision machining based on the National Institute of Metalworking Skills (NIMS). Students will develop the skill set and knowledge that employers want when hiring people in the manufacturing industry. Students will have the opportunity to take NIMS credential tests in: 1) CNC Turning: Programming and Setup Operations Level 1 and 2) CNC Milling: Programming and Setup Operations Level 1. Students will be learning and operating industry standard Computerized Numerical Control machines that cut steel. NIMS operates under rigorous and highly disciplined processes as the only developer of American National Standards for the nation’s metalworking industry accredited by the American National Standards Institute (ANSI). Students will also work towards industry standard certifications based on the Manufacturing Skill Standards Council (MSSC). Students will have the opportunity to take two MSSC certification exams in: 1) Safety and 2) Measurement and Continuous Improvement. Harper College, MFT102 Intro to Manufacturing and Safety (T64301), 4 college credits; MFT104 Quality and Measurement (T64302), 2 college credits; MFT123 Intro to CNC Machining (T643602), 4 college credits.

T346/T64602 Building Construction  LEVEL: 3,4  Two units
PREREQUISITE: T245 Wood Technology is recommended but not required
While participating in the construction of a house, students become familiar with all stages of construction from site preparation to interior finish work. This may include the following skills: carpentry, siding, roofing, drywall, electrical, plumbing, heating, painting and staining, various flooring applications, cabinet installation, and finish trim work. Transportation to the construction site is provided.
T64602: Harper College Course MNT115, Basic Carpentry, 2 college credits.
T347, T447 Woodworking Technology Independent Study  LEVEL: 3,4
One-half to two years  One-half unit per semester
PREREQUISITE: Instructor’s approval and successful completion of T245 Wood Technology

These courses will allow students who are interested in pursuing a career in the field of woodworking to gain additional knowledge and experience in an area of particular interest. With the help and supervision of the instructor, students explore in-depth such areas as cabinet making, building construction, wood technology, laminating, and bending or other related areas.

Students working on independent study projects must show personal initiative and self-direction in developing goals and carrying out plans. Research, experimentation, project construction and report writing are among appropriate student activities. With the instructor’s approval, planned activities may take place outside of the classroom.

T366, T466 Architecture, Animation, & Engineering Independent Study I & II  LEVEL: 3,4
One-half to two years  One-half unit per semester
PREREQUISITE: Instructor’s approval and successful completion of T266 Explorations in Architecture and Engineering

Students who want to further their drafting skills and gain additional experience in industrial related computer aided drafting are encouraged to enroll. Individualized work in selected areas of industrial drafting is planned with the instructor. This is an opportunity for students to become more self-directed in developing skills in an area of their choice. Course content allows preparation for Autodesk Certification test

T373 Network Administration and Security  LEVEL: 3,4
One year  One unit
PREREQUISITE: T273 Computer Repair or department chair approval

This course provides students with the instruction necessary to install, configure, and troubleshoot an enterprise-level computer network. It introduces current networking standards, the OSI Model, various protocols and topologies, the interconnections between various hardware components, network operating systems, DNS, DHCP, TCP/IP, Ethernet, wired and wireless transmission, LAN, WAN, intranet, and security. Students will be introduced to practical solutions for identifying, assessing, and preventing external and internal threats to networks. Key components include authentication methods, communication security, infrastructure security, cryptography basics, and security implementation. Completion of this course will prepare students to earn Comp TIA-Network+ and security++ certifications.

T377, T477 Electronics Independent Study  LEVEL: 3,4
One-half to two years  One-half unit per semester
PREREQUISITE: Instructor’s approval and successful completion of T276 Electronics Technology 2

Electronics Independent Study allows students who are interested in pursuing a career in the field to gain additional knowledge and experience. With the instructor as a resource, students may explore areas such as television, industrial circuitry, digital circuitry, and circuit design in-depth. Students must possess a degree of initiative and self-direction. With the assistance of the instructor, they will develop goals and plan activities and projects which can be carried out on their own initiative. Research, experimentation, project construction, and report writing are among appropriate student activities. With the instructor’s approval, planned activities may take place outside of the classroom.

T408/T60802 PLTW Digital Electronics  LEVEL: 3,4
One year  One unit
PREREQUISITE: Successful completion of T302 PLTW Principles of Engineering or Department Chair approval

This is a year-long honors course in laboratory electronics. This course covers digital electronics, starting with logic levels, truth tables, gates, flip-flops, registers, and counters. An emphasis is placed on the implementation of interfaces between analog and digital electronics, particularly when controlling and recording the results of typical engineering experiments. Students will make extensive use of the LabVIEW, Multi-Sim and other engineering software as a means of communication between a computer and external hardware. An independent project of the student’s design will serve as a semester culminating activity. Digital Electronics is a foundation course for those considering careers in computer science, electric engineering, software engineering, hardware engineering, as well as other fields of engineering. This class is a part of the PLTW Engineering sequence. T60802: Harper College Course ELT203, Digital Electronics, 4 credit hours.

T418 PLTW Civil Engineering and Architecture  LEVEL: 3,4
One year  One unit
PREREQUISITE: Successful completion of T302 Principles of Engineering or the approval of the Department Chair

Civil Engineering and Architecture (CEA) is the study of the design and construction of residential and commercial building projects. This honors course includes an introduction to many of the varied factors involved in building design and construction including building components and systems, structural design, storm water management, site design, utilities and services, cost estimation, energy efficiency, and careers in the design and construction industry. The major focus of the CEA course is to expose students to the design and construction of residential and commercial building projects, design teams and teamwork, communication methods, engineering standards, and technical documentation. Students will analyze, design, and build electronic and physical models of
residential and commercial facilities. While implementing these designs students will continually hone their interpersonal skills, creative abilities, and understanding of the design process. Students will use state of the art software, as used in the industry, to aid in the design process. Course content allows preparation for Autodesk Certification test. With successful completion of end-of-course assessment, student may obtain college credit.

**T428 PLTW Bioengineering & Environmental Sustainability**  LEVEL: 3,4  One unit

**PREREQUISITE:** Successful completion of T302 Principles of Engineering or the approval of the Department Chair

In this honors course students explore the diverse fields of biotechnology. Hands-on projects engage students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, tissue engineering, biomedical devices, forensics and bioethics. Students, usually at the 11th and 12th grade level, apply biological and engineering concepts to design materials and processes that directly measure, repair, improve and extend living systems. With successful completion of end-of-course assessment, student may obtain college credit.

**T437 ASE Automotive Independent Study 3**  LEVEL: 4  One-half or one year

**PREREQUISITE:** Instructor’s approval and successful completion of T336 Auto Technology 2

The Township High School District 211 Automotive Technology program is certified by the ASE Alliance.

**T438 PLTW Computer Integrated Manufacturing**  LEVEL: 3,4  One unit

**PREREQUISITE:** Successful completion of T302 Principles of Engineering or the approval of the Department Chair

How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? While students discover the answers to these questions in this honors course, they’re learning about the history of manufacturing, robotics and automation, manufacturing processes, computer modeling, manufacturing equipment, and flexible manufacturing systems. With successful completion of end-of-course assessment, student may obtain college credit.

**T444/T64401/T64402 Advanced Manufacturing Technology 3**  LEVEL: 4  One year

**PREREQUISITE:** Successful completion of T344 Advanced Manufacturing Tech 2

Students will continue to develop skills and knowledge in the setup and operation of machines used in the manufacturing industry. Students will continue to build knowledge on programming Computer Numerical Control (CNC) machines. There will be an opportunity to use industry programming software such as Mastercam to complete projects. In an addition, a curriculum focus will be on preventive maintenance of machines. Other processes used in manufacturing will be covered including plastic injection molding, welding, casting and assembly. Course objectives will help prepare students to take industry standard certification exams available from National Institute of Metalworking Skills (NIMS) and Manufacturing Skill Standards Council (MSSC). Harper College MFT 108 (T64401) Manufacturing Processes (3 college credit hours) and MFT 109 (T64402) Intro to Manufacturing Maintenance (2 college credit hours)

**T446/T64702 Building Construction Independent Study**  LEVEL: 4  Two units

**PREREQUISITE:** Instructor’s approval and successful completion of T346 Building Construction

Through this course, students are given the opportunity to participate in a second building construction project, through which they can gain additional expertise in the planning and building of a house. Second-year students are given the opportunity to strengthen areas of weakness and to serve as lead carpenters in areas where they have developed confidence and expertise. T64702 Harper College Course MNT215, Commercial Carpentry.

**T487 ASE Automotive Independent Study 4**  LEVEL: 4  One-half or one unit

**PREREQUISITE:** Instructor’s approval, successful completion of T336 Auto Technology 2 and concurrently enrolled in T-437 NATEF Automotive Independent Study 3

The Township High School District 211 Automotive Technology program is certified by the ASE Alliance. ASE certification helps prepare students for post-secondary education, the workplace, and for Automotive Service Excellence (A.S.E.) exams.

This course allows students who are interested in a career in automotive repair and maintenance to gain additional knowledge and experience in an area or areas of particular interest. Each student, with the help and supervision of the instructor, will work to complete ASE tasks of increasing degrees of difficulty in brakes, electrical/electronic systems, engine performance, and suspension and steering. Students working on independent study projects must show personal initiative and self-direction in developing goals and carrying out plans. Students will use industry standard research software to troubleshoot and service vehicles. ASE Certification and Program.
### Art

#### Possible College and Career Paths

Sculptor, Model Maker, Industrial Designer, Potter, Toy Designer, Set Designer, FX Designer for Film and Television

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Illustrator, Graphic Designer, Medical Illustration, Cartooning, Printmaker, Silk Screen Printer, Concept Artist

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<td>A254 Lvl. 2-4 Painting, Drawing, &amp; Printmaking 2</td>
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<tr>
<td>A256 Lvl. 2-4 Art in Contemp. Society</td>
<td>A399 Level 2,3,4 AP Art History</td>
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<td>A497 Advanced Digital Art Studio</td>
</tr>
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These courses are intended to enrich any curricular area.
High School District 211 offers unique learning opportunities in the field of visual arts. A stimulating selection of elective courses in a carefully planned curriculum prepares young students for a successful art experience or a career in art. The success of this program lies in its diversity. Whatever background, previous experience, or skill level, students are encouraged and inspired to expand their abilities and interests in art. During the initial year in the foundations level, students will explore a variety of concepts, a range of techniques, and experiment with diverse materials to encourage individual growth. The art education of a high school student is a series of learning experiences that incorporate thinking, questioning, and creating simultaneously. Students can move through the program based on their skills and interests. In their senior year, art majors will prepare a portfolio for entry into an art profession or college scholarship. One year of art can be used to fulfill a graduation requirement.

A100 Fine Arts LEVEL: 1,2,3,4
One to four years PREREQUISITE: Placement by staff conference recommendation. This course is designed to teach students in the areas of art, music, dance and drama through participation in realistic hands-on experiences. Basic objectives and skills will be met through appropriate activities designed for the student's level of capability.

A152 Painting, Drawing, and Printmaking 1 LEVEL: 1,2,3,4
One year PREREQUISITE: A152 Painting, Drawing, and Printmaking 1 (A,B,C) or Department Approval. This introductory semester course A152 Painting, Drawing, and Printmaking 1 is suggested as a pair with the introductory semester course A195 Digital Media Arts. PREREQUISITE: None

A195 Digital Media Arts 1 LEVEL: 1,2,3,4
One-half year PREREQUISITE: None
Digital Media Arts 1 is the beginning level course and introduction to digital arts and imaging. Students will begin to learn key concepts and basic skills involving digital photography and imaging, digital illustration/Vector, graphic design, raster/bitmap imagery, virtual worlds, motion graphics, and game design. Lessons will be geared towards learning tool and techniques basics using industry standard software such as Photoshop, Illustrator, Final Cut Pro, and Unity as students investigate the essentials of interactive media. No experience necessary. This introductory semester course is suggested as a pairing with the introductory semester course A196 Video and Animation.

A196 Video and Animation 1 LEVEL: 1,2,3,4
One-half year PREREQUISITE: None
Video and Animation is the beginning level course and introduction to the essentials of video and animation techniques. Students will use industry standard digital tools such as Photoshop and Final Cut Pro to create artworks in video, audio, 2D animation, 3D animation, motion graphics, and visual effects. Students will work in both real and virtual environments as they develop essential skills in visual communication, digital storytelling, videography, design, and animation. No experience necessary. This introductory semester course is suggested as a pair with the introductory semester course A195 Digital Media Arts.

A233 Graphic Design 1 LEVEL: 2,3,4
One-half year One-half unit PREREQUISITE: None
Explore the creative and useful field of graphic design and visual communication in this digitally based course. Apply your art skills and experience and discover their use in a potential career. Digital graphic design skills produce strong and clearly communicated images that inform, persuade, and command attention. This course familiarizes the student with current methods, techniques, and technology employed in the field of advertising to develop a student portfolio. Graphic design is structured to emulate a professional setting and offers exposure to graphic design related careers.

A234 Graphic Design 2 LEVEL: 2,3,4
One-half year One-half unit PREREQUISITE: A233 Graphic Design 1 (A,B,C) or Department Approval
Enroll in this digitally based course as a continued professional avenue to the graphic design and advertising industry. You will develop a portfolio that reflects the essential blend of traditional graphic design and digital skills. Learn production and industry standard computer applications, as well as creative marketing and advertising techniques. Included are such topics as branding, identity design, self-promotion, and web banner advertising. Study the relationship between products, services, features, and benefits to potential markets.

A252 Three-Dimensional Design 1 LEVEL: 1,2,3,4
One year One unit PREREQUISITE: None
This course provides the student with introductory knowledge of three-dimensional design skills and techniques in the lab setting. The qualities of various materials, such as ceramics, plaster, fiber, wood, lost wax, casting, and metal fabrication are investigated and applied in the development of 3D art creations that are usable and wearable. Providing step-by-step demonstrations helps students acquire sound skills. One-on-one guidance facilitates artwork design and quality. Students must receive a passing grade in the first semester of this course in order to continue for the second semester.

A253 Painting, Drawing and Printmaking 2 LEVEL: 2,3,4
One-half year One-half unit PREREQUISITE: A152 Painting, Drawing, and Printmaking 1 (A,B,C) or Department Approval
In Painting, Drawing and Printmaking 2, students will continue to increase their technical and creative skills. Students will explore advanced techniques through the use of various processes and media. Painting, Drawing and Printmaking
2 students will increase their art making confidence by developing essential rendering and quality composition skills to include landscapes, imaginative subjects, portrait, and figure studies. The student’s confidence increases as their hand/eye coordination improves. This semester course is suggested as a pairing with the semester course A254 Painting, Drawing and Printmaking 2.

A254 Painting, Drawing and Printmaking 2 LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: A152 Painting, Drawing, Printmaking 1 (A,B,C) or Department Chair Approval
This course is the second half of the level 2 Painting, Drawing, and Printmaking sequence. Students will continue to build upon their technical and creative skills. This class uses printmaking, drawing, and print media as a way of exploring how to combine those various media and techniques to allow the student to develop imagery with a personal thematic approach. Course work increases a student's ability to effectively use composition to create the illusion of reality on a two-dimensional surface. This semester course is suggested as a pairing with the semester course A253 Paint, Drawing and Printmaking 2.

A255 Photography 1 LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: None
Photography 1 introduces professional camera techniques. During this one semester digitally based course, students capture and create photographic images. Photography communicates ideas and document events. The creation of unique photographic images acts as a window to personal experience. Information regarding photographic careers will add direction and focus. Most materials, technology, and equipment are supplied. No experience necessary. This introductory semester course is suggested as a pairing with the introductory semester course A355 Photo 2.

A256/A65603 Art in Contemporary Society LEVEL: 2,3,4
One-half year One-half unit
Art in Contemporary Society presents the influences of the Arts in a chronological perspective. This course examines the role that dance, drama, music, and the visual arts play in society. Through discussion, critique, and interpretation of the arts, students explore the relationship between contemporary and historical events. No experience necessary. A65603: Harper College Course A105, Introduction to Arts, 3 credit hours.

A295 Digital Media Arts 2: Video Game Design and Interactive Media LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: A195 Digital Media Arts 1 (A,B,C) or Department Chair Approval
Video Game Design and Interactive Media is the second course in the Digital Media Arts course sequence. It gives students the opportunity to get hands on experience in the ever-growing field of Digital Art. Students will use industry standard programs such as Final Cut Pro, Unity, and Z Brush to learn skills in developing artworks in 3D modeling, 3D animation, virtual worlds, 2D animation, augmented reality, interactive art, digital imaging, and introduction to video game creation.

A296 Video and Animation 2: Visual Effects and Production LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: A196 Video and Animation 1 (A,B,C) or Department Chair Approval
Visual Effects and Production is the second course in the Video and Animation course sequence. Students will advance their understanding of video and animation techniques as they produce digital video, 2D animation, and 3D animation artworks. Students will use industry standard software such as Photoshop and Final Cut Pro as they develop visual communication and narrative skills using digital art techniques. Students will extend their creative potential as they explore compositing, green screening, and other special effects in video, while developing skills in animation and motion graphics such as motion tracking and using virtual cameras.

A342 Broadcast Media LEVEL: 1,2,3,4
One year One unit
This one-year course is designed for the study and practice of the basic elements of broadcast journalism and video production. The course will emphasize news-gathering, writing, video recording, editing, and the study of mass media. Students will learn the basic elements of news value and vocabulary specific to broadcast writing. They will also identify various news sources and use interview skills to create stories using video editing, and livestreaming software. This course explores the world of digital video and television production with the possibility of creating a school centric television channel that will highlight school events and create a place for original student produced content in addition to the news broadcast. Students will be able to learn on professional equipment in a modern digital TV studio. Students work in collaborative teams to produce projects using cameras, while learning the basics of studio and field production, lighting and sound.

A352 Three-Dimensional Design 2 LEVEL: 2,3,4
One year One unit
PREREQUISITE: A252 Three-Dimensional Design 1 (A,B,C) or department chair approval. Students must receive a passing grade in the first semester of this course in order to continue for the second semester.
This course expands upon the basic 3-D design skills and techniques introduced in A252 Three-Dimensional Design 1. Additional opportunities available to students include: wheel-throwing clay to form pottery; casting and soldering metal to create jewelry; and using additive and subtractive techniques in chosen materials such as plastic, metal, paper, clay, fiber, and wood to create sculptures. Students view artwork by recognized professional sculptors and craftsmen and learn about 3D art-related careers.

A355 Photography 2 LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: A255 Photography 1 (A,B,C) or Department Approval
Photography 2 builds upon skills required in Photography 1 by extending and expanding a student's experience in
camera and printing techniques. Beyond fundamental materials and processes, Photography 2 places more emphasis on the conceptual and expressive qualities of the photographic image. Students produce a portfolio of finished photography that reflects the skills mastered. Most materials, technology, and equipment are supplied.

**A356 Painting, Drawing, and Printmaking Studio**

**LEVEL:** 2, 3, 4

**One unit**

**PREREQUISITE:** A253 Painting, Drawing and Printmaking 2, and/or A254 Painting, Drawing and Printmaking 2 (A,B,C) or Department Chair Approval

Painting Drawing and Printmaking 3 will prepare students for the rigor of the AP art courses in the 400 and 500 levels. Students will begin to master various technical skills while integrating observational life drawing, personal context and issues in contemporary society. Students begin to build a portfolio that showcases their art making abilities in a variety of drawing, painting and printmaking media. This portfolio can be used for scholarship, college application or career opportunity. Students will synthesize techniques, processes, and concepts in an increasingly mature manner. Developing an awareness of content, symbolism, and theme in traditional and contemporary artworks, students evaluate and critique their work and the work of others. Students formulate original ideas, personal expressive style, and direction for future art work.

**A397 Digital Art Studio**

**LEVEL:** 3, 4

**One unit**

**PREREQUISITE:** A295 Digital Media Arts II: Video Game Design and Interactive Media, A296 Video and Animation II: Visual Effects and Production, A294 Graphic Design III: (A,B,C) or Department Chair Approval

Digital studio is the third step in the Digital Media Arts and Video and Animation sequence. Students will work in a wide variety of advanced digital applications to create work that integrates their current skill sets with the current use of technology in the Arts. Multimedia production may include digital illustration, animation, video, web page design, iPad app design, interactive arts, game design, and digital photography. A comprehensive portfolio will be developed emphasizing a variety of technical skills and advanced creative thinking. Students will work in teams on larger scale projects, as they take on roles reflective of potential college and career paths in digital media.

**A399 Advanced Placement Art History**

**LEVEL:** 2, 3, 4

**One unit**

AP Art History is a full-year elective course, which prepares students for the AP Art History Exam. The curriculum supports visual literacy by providing a deep understanding of social, political, historical, and cultural events spanning world history, from prehistoric art to art of the post-modern 21st century.

**A467 Two-Dimensional Studio/Photography**

**LEVEL:** 3, 4

**One unit**

**PREREQUISITE:** A355 Photography 2 or Department Chair Approval

This course offers training and experience in advanced digital photographic techniques. Advanced camera techniques, studio lighting, quality composition, and work ethic are emphasized. Students are encouraged to use special techniques and creative expression. The outcome is a comprehensive portfolio that reflects a student's artistic and technical achievement. Most materials, technology, and equipment are supplied.

**A487 Three-Dimensional Studio**

**LEVEL:** 3, 4

**One unit**

**PREREQUISITE:** A352 Three-Dimensional Design 2 or Department Chair Approval

Three-Dimensional Design Studio offers each student the opportunity to work in a variety of sculptural media, which may include work in metal, ceramic, textile, wood, and plaster. With the guidance of the instructor, each studio student develops an individualized course of study with timelines providing advanced experience in one or more areas of three-dimensional art. While concentrating in the selected area, students work to improve technical quality and develop a personal style. Each student compiles a comprehensive portfolio of artistic achievements.

**A497 Advanced Digital Art Studio**

**LEVEL:** 4

**One unit**

**PREREQUISITE:** A397 Digital Studio (A,B,C) or Department Chair Approval

Advanced Digital Studio is the fourth step in the Digital Media Arts and Video and Animation sequence. This independent study course allows advanced digital Art students the opportunity to develop a complete Digital Art portfolio. The focus of this course is on digital art career exploration and preparation. Students advance their knowledge of digital photography, raster imaging, vector-based graphics, character animation, advanced digital audio, virtual reality, video editing, special effects, game design, and interactive art. Advanced Digital Studio students create a comprehensive portfolio, which reflects their artistic achievement. Students in this course may choose to use their portfolio to apply for scholarships, college credit, careers in the field of art, and university applications.

**A489 Advanced Placement Studio Art: 3-D Design**

**A499 Advanced Placement Studio Art: 2-D Design**

**A599 Advanced Placement Studio Art: Drawing (3,4)**

**LEVEL:** 4

**One unit each**

**PREREQUISITE:** Portfolio reviewed by the Art Department

These independent study courses give advanced art students the opportunity to develop an Advanced Placement Art Portfolio. The focus of these courses is on the three sections graded by the College Boards: Quality, Concentration, and Breadth. Students will select works which excel in concept, composition, and execution from their “body of work” or portfolio. Students also will organize a series of work around a compelling visual concept. Finally, students will demonstrate, through their work, broad experience and accomplishment.
### Technology Courses

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<tr>
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<tbody>
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<td>Computer Literacy</td>
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<tr>
<td>B164/B664#</td>
<td>Technology Applications</td>
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<tr>
<td>B232</td>
<td>Emerging Technologies</td>
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<tr>
<td>B293</td>
<td>Social Media for Business</td>
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<td>B294</td>
<td>Web Design &amp; Development</td>
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<td>B366</td>
<td>Desktop Publishing Independent Study</td>
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### College Preparatory Courses

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<th>Course Title</th>
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<tr>
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<tr>
<td>B223</td>
<td>Topics in Marketing</td>
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<td>B267</td>
<td>Study Skills</td>
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<td>B285*</td>
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<td>Business Management</td>
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<tr>
<td>B386#/B686#</td>
<td>Accounting I - Financial</td>
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<td>B396/696</td>
<td>QuickBooks#</td>
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<tr>
<td>B397</td>
<td>Business Incubator</td>
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<tr>
<td>B488#</td>
<td>Advanced Accounting II - Managerial</td>
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### Career Readiness Courses

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<td>B224**</td>
<td>Practices in Entrepreneurship (PIE)</td>
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<tr>
<td>B225***</td>
<td>Practices in Entrepreneurship (PIE) Independent Study</td>
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<tr>
<td>B332*</td>
<td>Business Internship</td>
<td>2</td>
<td>3, 4</td>
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<tr>
<td>B347</td>
<td>Career Exploration and Global Competitive Skill Development</td>
<td>1/2</td>
<td>3, 4</td>
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* Satisfies the District 211/State Consumer Education Requirement

** B224 students must also enroll in H224

*** B225 students must also enroll in H225

# Students may have the opportunity to earn college credit
Business Education programs prepare young people for the challenge of the college business curriculum, preparing them for employment in business, and provide business-related instruction which can be applied to personal use. Students gain understanding of business concepts, become familiar with the role of technology as a business and personal tool, and prepare for further education in career areas requiring college preparation such as accounting, law, marketing, management, and business administration. Students gain direction concerning the many opportunities available to them in today's global economy.

A Business Internship program is designed to help students gain practical experience through on-the-job training in offices and retail establishments in the community.

B101 Computer Literacy LEVEL: 1,2,3,4
One year

PREREQUISITE: Placement through staff recommendation

Computer Literacy is designed to help students acquire skills to be successful in an academic and career setting. Students will learn proper keyboarding technique and develop skill in operating the computer using various software packages. Document formatting procedures will be taught. Using the Microsoft Office Suite, students learn word processing, spreadsheet applications, desktop publishing, presentation concepts, and basic web page design principles. English language skills are reinforced.

B164/B66402 Technology Applications LEVEL: 1,2,3,4
One year

This hands-on course is designed to teach students how to master the use of essential computer software they will apply to high school, college, and personal and professional work. Students increase their computer productivity by completing real-world projects in acceptable business formats using the industry standard for productivity, Microsoft Office (Word, Excel, Access, PowerPoint). Students will create advanced-level spreadsheet applications, web pages, advanced-level word processing applications, desktop publishing projects, professional computer presentations, database management, and integrated applications. Appropriate and ethical use of technology is also explored. Students enrolled in B164 Technology Applications meet or exceed the District 211 Digital Democracy (Digital Quest) and Technology Competencies identified in Global Competitive Skills initiatives. This course is also included in every College and Career Cluster, echoing the input of local community business leaders. B66402: Harper College CAS 160, Intro to Business Software Packages, 3 college credit hours.

B184 Business Explorations LEVEL: 1,2
One year

Business Explorations provides students the opportunity to explore today's global marketplace through the perspectives of both the consumer and the business professional. This course is an introductory survey of business topics, including entrepreneurship, business organization and management, human resources, marketing, financial planning, credit, savings and investing, accounting, business law, insurance, and social responsibility. This course meets and exceeds the D211 Consumer Education graduation requirement.

B223 Topics in Marketing LEVEL: 2,3,4
One-half year

Topics in Marketing is a course designed to teach marketing concepts through the examples of different industries such as: sports, music, entertainment, fashion, and technology. Students will learn and apply the functions of marketing through hands-on learning, group activities, and projects related to marketing concepts studied in class. Students will develop a marketing plan where they create a new product/service and then apply target marketing strategies to produce promotional material, find sponsors, create advertisements, and more. Guest speakers and a field trip enhance classroom instruction by sharing personal experience and informing students how to achieve a position in the marketing industry.

B224 Practices in Entrepreneurship (PIE) LEVEL: 2,3,4
One semester

REQUIREMENT: Any foods course, concurrent enrollment in H224 Practices in Entrepreneurship (PIE)

This interdisciplinary class offers students the opportunity to manage and operate a small business within the school. Students will acquire the skills necessary to become successful business managers and entrepreneurs, through in-class study of topics such as economics, management, marketing, and accounting. Students gain authentic experience running a small business through this learning opportunity.

B225 Practices in Entrepreneurship (PIE) Independent Study LEVEL: 3,4
One semester

REQUIREMENT: Successful completion of B224 and H224 Practices in Entrepreneurship (PIE), concurrent enrollment in H225 Practices in Entrepreneurship (PIE) Independent Study

This independent study class is an extension of B224 and H224. Students will manage and operate a small business through exploration and inquiry of advanced business topics, mastering the skills acquired in B224 and H224.

B232 Emerging Technologies LEVEL: 2,3,4
One-half unit

Emerging Technologies exposes and teaches students about current and emerging hardware and software in the dynamic world of technology. Throughout the semester, topics such as the evolution of Web 2.0, cloud computing and the use of web-based applications in a desktop, mobile and slate environment will be explored. Students will interact and experience the latest digital tools through blogging, tagging, social bookmarking, social and professional networking and managing syndicated online materials. Students who take this course will be able to apply these skills in an academic, personal and professional setting.
B267 Study Skills LEVEL: 2,3,4
One-half year One-half unit
Study Skills is designed to teach students effective student habits to be successful in high school and beyond. Personal learning styles will be analyzed in order to maximize learning across the curriculum. This course focuses on the development of time management, organizational skills, note-taking skills, test taking strategies, reading literacy, and content area study skills.

B294 Web Design & Development LEVEL: 1,2,3,4
One year One unit
Do you have an interest in designing websites or learning how to build websites? This course teaches you front-end design skills of web design and the back-end coding of web development. Industry leaders from our community helped create this innovative new course in response to an increasing demand for these needed skills. The course culminates in a real-world application of working with a local business to refresh, redesign, and/or redesign their website. Students will primarily use industry-standard software such as Adobe Photoshop, Illustrator, and Premier for front-end design and WordPress, HTML5, and CSS for back-end development.

B285 Consumer Education LEVEL: 2,3,4
One-half year One-half unit
This required course exceeds state requirements for consumer education. Students will receive financial literacy instruction in budgeting, saving, investing, credit, insurance, comparative shopping, banking, income taxes, advertising, consumer economics, and consumer protection.

B293 Social Media for Business LEVEL: 2,3,4
One-half year One-half unit
Social Media for Business introduces students to social media marketing used in business. Students will study the top social media platforms to reach audiences and to promote brands. Key concepts include audience awareness, lead generation, monetization, social brand identity, social media analytics, planning, and auditing. Through a simulation, students will realize the financial aspects of social media marketing; understand the business applications of social media platforms; manage a budget for content creation and promotion; plan social media campaigns; identify the appropriate platforms for specific audience; distinguish paid, owned and earned social media marketing efforts; select the right content for the right audience and mediums; find the right mix of promotional and non-promotional content; and make data-driven decisions based on results from posts over an extended period of time. By gaining an understanding of foundational concepts; creating practical, hands-on projects; and experiencing social media marketing through the online simulation, students will have a foundation to help themselves succeed in social media and digital marketing today and in their chosen profession.

B332 Business Internship LEVEL: 3,4
One year Two units
PREREQUISITE: Evidence of work with your counselor on career planning for the occupational focus or completion of high school course work related to your occupational goal and potential training stations. Students must be 16 years of age or older. Business Internship is designed for students with career interests within the business industry. Students are given an opportunity to gain first-hand knowledge of business careers through on-the-job training provided in cooperation with local businesses. Classroom activities focus on general business concepts, career paths, communication skills, employer-employee relations, and consumer-related topics. Students earn one unit of credit for the work experience and one unit of credit for the related class. This course meets the D211/State graduation requirements for Consumer Education.

B347 Career Exploration and Global Competitive Skill Development LEVEL: 3,4
One-half year One-half unit
Students will learn and apply essential skills needed to prepare for the college, scholarship, and workforce application process, including internships, entry-level positions, and long-term career opportunities. Topics include career and college major exploration, effective resume writing, successful interviewing strategies, and desirable employability skills. Students will gain knowledge of professional technologies, including, but not limited to, Excel spreadsheets (creating, manipulating, and analyzing) and professional email correspondence. Students will obtain an understanding of professionalism in today’s world through building their personal brand. These global competitive skills will prepare students to be successful in any college and career pathway.

B366 Desktop Publishing Independent Study LEVEL: 3,4
One year One unit
PREREQUISITE: B164 Technology Applications or department approval
Desktop Publishing Independent Study provides students with the opportunity to apply skills to real-world applications. Students will produce documents for various school functions that include athletics, activities, music and drama, honors programs, etc. Students will have the opportunity to meet with coaches, teachers, and administrators to plan and create desktop publishing items. Students will further their development in using Microsoft Word, Photoshop, presentation software, and peripheral equipment.
B384 Business Management

LEVEL: 3,4
One-half year

Business Management provides a critical understanding of how business organizations operate and are managed – their goals, strategies, structures, environments, and the motivations and interests of the people involved. Students will analyze the management functions (planning, organizing, leading, staffing, controlling) and their implementation and integration within the business environment. This course will provide students with an opportunity to learn the skills necessary to lead companies through a constantly changing landscape. Through a variety of unique classroom projects, group discussions and lectures, students will take with them the skills to become a leader in the business world.

B394 Finance & Investing

LEVEL: 2,3,4
One-half year

Finance and Investing is offered to students interested in learning an overview of the financial world and how to trade on financial markets. Students will explore the concept of time value of money, how financial markets and institutions play a role in the investment world, and different types of investments. Students will apply investment theories and demonstrate their knowledge through active trading using a virtual market simulation. This course is recommended for students who are considering careers in finance or business as well as those who seek a better understanding of how to invest and build a portfolio for their personal benefit.

B386/B68602 Accounting

1 - Financial

LEVEL: 2,3,4
One unit

Course content will prepare all business students for the rigorous curriculum of college accounting and is strongly recommended for all future business majors. Students will gain a basic understanding of the accounting industry and procedures, including debit and credit analysis, journalizing, posting, calculating payroll, preparing and analyzing financial statements, preparing adjusting and closing entries, calculating depreciation, and costing inventory. Students will become familiar with computerized accounting software, including Microsoft Excel, and the practical uses of these programs in the business world.

B68602: Harper College, ACC100 Bookkeeping, 3 college credits.

B387 Business Law

LEVEL: 3,4
One-half year

Business Law is offered to students interested in the application of law to their personal lives and to business activities. Students study the administration of the law, various parts of a contract, termination, remedies, defenses for breach as well as real and personal property. Historical and current legal cases that cover constitutional, civil, criminal, and contract laws will be studied. Students demonstrate their knowledge of law and legal procedures by participating in mock trials. This course is recommended for students who are considering careers in law or business as well as those who seek a better understanding of the application of law to their personal lives.

B396/B69603 QuickBooks

LEVEL: 3,4
One-half year

PREREQUISITE: B386 Accounting I - Financial (A.B.C) Students are introduced to QuickBooks to apply their prior accounting knowledge into practical use, through industry leading software. Students expand their payroll accounting knowledge from B386 Accounting I through understanding federal and state laws regarding employment, payroll, deductions, and taxes. Upon completion of this class, along with B164 Technology Applications I & II and B386 Accounting I, students will have an opportunity to earn an Accounting Bookkeeper Clerk Certificate from Harper College. B69603: Harper College, ACC112, Quickbooks, 2 college credits.

B397 Business Incubator

LEVEL: 2,3,4
One unit

This course is designed to prepare students to become true entrepreneurs. Students will have the opportunity to create and fully develop their own product or service. Real-world entrepreneurs and business experts will serve as coaches and mentors guiding student teams through the process of ideation, market research, and business plan development using the business model canvas approach. Midyear, students will gain in-market experience with “Minimum Viable Product” research and presentations made possible by small grants to student teams. Over the course of the year, students teams will learn about marketing, accounting, human resources, as well as the legal aspects of running a business to prepare for an investor panel presentation. This presentation helps to drive the entrepreneurial spirit by having student teams in front of actual investors to pitch their innovative idea and possibly win funding to turn their business plans into reality.

B488 Advanced Accounting

2 - Managerial

LEVEL: 3,4
One unit

PREREQUISITE: B386 Accounting I - Financial

This honors class is designed to prepare all college-bound business students and those pursuing a career in accounting or finance with an advanced, integrated approach to accounting. Taking financial accounting to an accelerated level, this course incorporates managerial accounting concepts such as operations, financial, and investment decision making, time value of money, accounting information systems, cost-volume-profit analysis, and variance analysis. The combination of these objectives provides students with an understanding about decisions that must be made in the financial reporting process and the ability to evaluate and use accounting data. Students may earn credit by exam for Harper College ACC101, Intro to Financial Accounting.
*Any elective listed on page 27 may be substituted for any 400 level course to meet graduation requirements. Electives also may be taken in addition to courses listed on this page.
SOPHOMORE
JUNIOR
SENIOR

JUNIOR
SENIOR

SENIOR

ELECTIVES

E203/E603
Speech 1
1/2 Unit

E303
Rhetoric of Cinema
1/2 Unit

E402
English Literature
1/2 Unit

E204
Speech 2
1/2 Unit

E305
Advanced Reading
1/2 Unit

E403
Senior Composition
1/2 Unit

E205
Journalistic Writing 1
1/2 Unit

E341
Reading Improvement
1/2 Unit

E404
English Literature
1/2 Unit

E207
Journalistic Writing 2
1/2 Unit

E307
Creative Composition
1/2 Unit

E405
Expository Composition
1/2 Unit

E212
Dramatics
1/2 Unit

E317
Advanced Creative Comp.
1/2 Unit

E352
Prof. Writing and Communications
1/2 Unit

E214
Advanced Topics in Lit.
1/2 Unit
English is not only a discipline in itself, but also a necessary corollary to success in all subject areas. The communication skills of reading, writing, speaking, and listening are essential for meeting the economic, social, and cultural challenges in today’s society. To think clearly and creatively and to express ideas effectively are the responsibility of every human being. The goal of the English Department is to develop these skills to the fullest extent in all students.

In order to meet individual needs, the English Department places students in appropriate ability groups. Placement is based on standardized test scores, past achievement in English, and teacher recommendation. No placement, however, is final, and changes in a student’s assigned level may take place at any time performance warrants such a move.

In addition to the teaching of communications skills, the English Department feels a strong commitment to broaden each student's understanding that literary works relate to their eras, that certain universal themes span history and that both factors have relevance to the individual today.

Students are engaged in reading and responding to short stories, novels, poems, essays, and plays. The goal is that students will gain an appreciation for literature and become lifelong readers and writers.

**E100 English 1**

**LEVEL: 1**

One year

One unit

**PREREQUISITE:** Placement through staff conference recommendation

Basic communication skills are taught in this course with emphasis on reading and writing. Students are given added instruction in areas of individual needs. Functional and practical reading skills are emphasized.

**E101 English 1**

**LEVEL: 1**

One year

One unit

The course is designed to improve basic language skills in reading and writing. The writing program stresses the application of language skills in a variety of compositions. The reading program develops skills in recalling, summarizing, making predictions, and making inferences. Activities focus on reading strategies useful for a wide range of materials. High-interest materials are utilized at increasing levels of difficulty. (NCAA Core Course)

**E102 English 1**

**LEVEL: 1**

One year

One unit

This course for freshmen includes the study of literature and extensive practice in writing. Literature studies involve analysis and appreciation of a variety of types and themes. The composition program stresses clarity, specificity, and creativity. The basic principles of the fine arts are introduced and integrated into the language arts curriculum. (NCAA Core Course)

**E104, E105, E106**

**English as a Second Language – Entry Level**

**LEVEL: 1,2,3,4**

**PREREQUISITE:** Placement through district assessment and staff recommendation

One year

One unit

This entering level consists of three courses designed to meet the needs of English language learners who have recently arrived with little or no English language skills. In this level, students will acquire listening comprehension, oral language, vocabulary, and basic reading and writing skills.

**E108 English 1**

**LEVEL: 1**

One year

One unit

Students in this accelerated course are introduced to a variety of literary elements in different types of literature. Creativity is developed through class study of literature and independent study. The composition program includes experience in both creative and critical writing. The basic principles of the fine arts are introduced and integrated into the language arts curriculum. (NCAA Core Course)

**E110-E410 Reading**

**LEVEL: 1,2,3**

One year

One unit

(Palatine and Hoffman Estates High Schools Only)

**PREREQUISITE:** Placement through staff conference recommendation

These courses offer the student basic reading skills. Students will work to increase vocabulary and comprehension. Instruction is individualized to meet each student’s needs.

**E111, E112, E113**

**English as a Second Language (ESL) Beginner Level**

**LEVEL: 1,2,3,4**

One year

Up to three units

**PREREQUISITE:** Placement through district assessment and staff recommendation

This ESL course is designed to meet the needs of English language learners. This beginning level course is designed to meet the individual needs in speaking, listening, reading, writing, and the acculturation process.

**E114, E115, E116**

**English as a Second Language (ESL) Beginning**

**English Literacy**

**LEVEL: 1,2,3,4**

One year

One unit

(Palatine High School Only)

**PREREQUISITE:** Placement through student services and ESL department recommendation

This ESL course is designed to meet the needs of English language learners in speaking, listening, reading, and writing. Students will progress to E111, E112, E113 ESL – Beginner or a higher level after successful completion.

_Fairy tales are more than true; not because they tell us that dragons exist, but because they tell us that dragons can be beaten._

– Helen Keller

Author and political activist
E120 English 1  LEVEL: 1  One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course is designed to improve basic language skills in reading, listening, speaking, and writing. The class emphasizes vocabulary development and the mechanics of writing.

E121, E122 English as a Second Language – Intermediate Level  LEVEL: 1,2,3,4  One year  Up to two units
PREREQUISITE: Successful completion of E111, E112, and E113 or placement through district assessment and staff recommendation
This ESL course is designed to meet the needs of English language learners. This intermediate level course focuses on building reading, writing, speaking, and listening, and grammar skills.

E130 English  LEVEL: 1  One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This fundamental English course provides students with prescriptive and targeted instruction, resulting in increased skill development in the areas of comprehension, vocabulary, writing and communication. Students placed in this course will be placed in conjunction with a reading improvement course that emphasizes its instruction on fundamental decoding skills.

E131, E132 English as a Second Language – Advanced Level  LEVEL: 1,2,3,4  One year  Up to two units
PREREQUISITE: Successful completion of E121 and E122 or placement through district assessment and staff recommendation
This advanced ESL course is designed to meet the needs of English language learners. All language skills are practiced and refined with an emphasis on academic reading and writing.

E141 Reading Strategies 1  LEVEL: 1  One unit
PREREQUISITE: Placement determined by the student’s score on the district reading placement test
This course is designed for students for whom the required English class alone is insufficient to meet their needs. Students will be given specific and individualized instruction to improve their reading skills. The course is to be taken concurrently with English 101. (The course credit does not apply towards the 4-credit English requirement for graduation.)

E151 English as a Second Language – Transitional Level  LEVEL: 1,2,3,4  One year  One unit
PREREQUISITE: Placement through staff recommendation and/or successful completion of E131 and E132
This transitional ESL course is designed to further students’ development in English through intensive listening, speaking, reading, and writing. This course is designed to transition English language learners into mainstream English classes. (NCAA Core Course)

E170, E190, E290, E390 Reading Improvement  LEVEL: 1,2,3  One year  One unit each
PREREQUISITE: Placement through staff conference recommendation
These courses utilize the Direct Instruction model to improve reading decoding, expand vocabulary, and increase comprehension skills.

E200 Vocational English  LEVEL: 2  One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course is designed as an extension of E100 English. Vocational English emphasizes the practical application of the communications skills acquired in E100 English.

E201 English 2  LEVEL: 2  One year  One unit
PREREQUISITE: E100 English 1 or E101 English 1 or E102 English 1 with department recommendation
This course is structured for the student whose skills are below grade level. English 201 focuses on furthering students’ development in reading, writing, and speaking. Students improve their comprehension and vocabulary skills. Basic analysis of fiction and nonfiction is developed and writing assignments stem from the readings studied and personal experience. Students also have an opportunity to develop effective oral communication skills. (NCAA Core Course)

E202 English 2  LEVEL: 2  One year  One unit
PREREQUISITE: E101 English 1 with department recommendation or E102 English 1 or E108 English 1
The study of literature by either types or themes is continued at the sophomore level. The writing program focuses on various types of compositions. Concentrated units in speech and communication are part of the work at this level. Principles of the fine arts are introduced and integrated with the language arts curriculum. (NCAA Core Course)
E203/E60303 Speech 1  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: Concurrent enrollment or completion of E202 or higher or department chair approval.
Speech 1 strengthens oral communication skills which will help the student in future life. Emphasis is placed on gaining confidence before a group, listening, organizing ideas and persuading an audience. Students participate in a variety of exercises, including informative and persuasive speeches. (NCAA Core Course) E60303: Harper College, SPE101, Fundamentals of Speech Communication (3 credits)

E204 Speech 2  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: E203 Speech 1 (A,B,C)
Speech 2 continues to strengthen skills learned in Speech 1. In addition, the course concentrates on group dynamics and discussion, debate, interpretation, advertising, and radio and television production. (NCAA Core Course)

E205 Journalistic Writing 1  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: English (A,B,C)
Journalistic Writing 1 focuses on the process of developing writing skills through systematic instruction in producing newspaper articles such as news, features, sports, and editorials which adhere to techniques and principles of journalistic writing. (NCAA Core Course)

E207 Journalistic Writing 2  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: E205 Journalistic Writing 1 (A,B,C) or recommendation of the journalistic writing teacher
Journalistic Writing 2 is a course for the student who wants additional journalism experience. The course focuses on advanced news and feature writing, specialized sports writing, and critical editorial writing. Classroom instruction highlights writing for print and electronic media, as well as advanced layout and design. (NCAA Core Course)

E208 English 2  LEVEL: 2
One year  One unit
PREREQUISITE: E108 English 1 (A,B) or E102 English 1 with department recommendation
This accelerated course examines a variety of demanding literary works from a number of perspectives. The writing program emphasizes analysis and argumentation. The third major focus of the course is the development of the student’s speaking abilities through formal and informal speeches. Principles of the fine arts are introduced and integrated with the language arts curriculum. (NCAA Core Course)

E212 Dramatics  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: English 1 (A,B,C) or department recommendation
Dramatics provides an overview of and participation in the major areas of theater: pantomime, interpretation, improvisation, acting, play production, criticism, and theater history. Students apply their skills in various exercises and assignments within each unit.

E214 Advanced Topics in Literature  LEVEL: 2,3,4
One-half year  One-half unit
PREREQUISITE: E101 English 1 with department recommendation or E102 English 1 or E108 English 1
This reading-intensive course develops comprehension and fluency through encounters with literature focused on a central topic, yet representing a variety of themes, concepts, eras, and ideas. Through writing assignments and class discussion in response to literature, students also will develop their ability to think, speak, and write with clarity and insight. (NCAA Core Course)

E220 English 2  LEVEL: 2
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course is an extension of E120 English 1. The course emphasizes increased reading and practical writing skills. The writing program focuses on outlining, paragraph structure, and essay development.

E241 Reading Strategies 2  LEVEL: 2
One year  One unit
PREREQUISITE: Placement determined by the student’s scores on the district reading placement test and the district reading assessment
This course is designed for students for whom the required English class alone is insufficient to meet their needs. Students will be given specific and individualized instruction to improve their reading skills. The course is to be taken concurrently with the first semester of English 201. E241 Reading 2 course credit does not apply toward the 4-credit English requirement for graduation.

E300 Practical English  LEVEL: 3
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course is designed to support understanding of basic literary elements, development of writing skills related to grammatically correct sentences and paragraphs and overall vocabulary development.

My will shall shape the future. Whether I fail or succeed shall be no man’s doing but my own. I am the force; I can clear any obstacle before me or I can be lost in the maze. My choice; my responsibility; win or lose only I hold the key to my destiny.

– Elaine Maxwell
American author
**E301 English 3**  
LEVEL: 3  
One year  
One unit  
PREREQUISITE: E201 English 2 or E220 English 2 or E202 English 2 with department recommendation  
This course emphasizes reading comprehension and written communication. A variety of American literature selections will be read, interpreted, and discussed. Writing assignments focus on course material, as well as personal experience. Principles of the fine arts are integrated into the language arts curriculum. (NCAA Core Course)

**E302 English 3**  
LEVEL: 3  
One year  
One unit  
PREREQUISITE: E201 English 2 with department recommendation or E202 English 2 or E208 English 2  
This course includes extensive work on both writing and the study of American literature. Students will be encouraged to think critically and to write logically. They will learn research skills, complete a research project, and write informative, analytical, and persuasive compositions based on literature studied as well as personal experience. Principles of the fine arts are integrated into the language arts curriculum. (NCAA Core Course)

**E303 The Rhetoric of Cinema**  
LEVEL: 3,4  
One-half year  
One-half unit  
This course focuses on film as literature. In addition to studying the literary elements of plot, theme, tone, point of view, style, symbolism, irony, characterization, and setting, the emphasis is on writing, reading, and speaking about cinema while learning to understand and analyze this visual medium through the principles of film language and rhetoric, applicable concepts from politics, art, literature, music, sociology, psychology, history, critical approaches, and genres. (NCAA Core Course)

**E305 Advanced Reading**  
LEVEL: 3,4  
One-half year  
One-half unit  
PREREQUISITE: E202 English 2 or E208 English 2 or department recommendation  
Advanced Reading is a course designed for students reading at grade level or above. It provides them with skills necessary for success in college. Emphasis is on higher-level comprehension, vocabulary, study skills, and reading speed. (NCAA Core Course)

**E307 Creative Composition**  
LEVEL: 3,4  
One-half year  
One-half unit  
PREREQUISITE: E202 English 2 (A,B,C) or E208 English 2 or department recommendation  
This course is designed for students who want to develop their skill and talent in writing creatively. Students learn to recognize and use techniques such as description, characterization and narration as they progress from specific assignments to independent creative compositions. (NCAA Core Course)

**E317 Advanced Creative Composition**  
LEVEL: 3,4  
One-half year  
One-half unit  
PREREQUISITE: E307 Creative Composition (A,B,C) or department recommendation  
This course is designed for students who want to further their skills as creative writers. Students write works of short fiction, creative non-fiction, poetry, drama, and screenplays. Publication is an integral part of the curriculum with students encouraged to submit their writing to various contests and the school literary magazine. (NCAA Core Course)

**E319 Advanced Placement Language and Composition**  
LEVEL: 3,4  
One year  
One unit  
PREREQUISITE: E208 English 2 (A,B) or E202/E302 English 2 with department recommendation  
This honors course emphasized college-level language and composition. The student is prepared to enter college with a strong English background. Students are encouraged to take the Language and Composition Advanced Placement Examination of the College Entrance Examination Board. (NCAA Core Course)

**E320 English 3**  
LEVEL: 3  
One year  
One unit  
PREREQUISITE: Placement through staff conference recommendation  
This course is an extension of E220 English 2. The emphasis is on reading comprehension and writing skills. The writing program focuses on multi-paragraph essays and the editing process. Reading and writing skills are improved through lessons pertaining to literature with a historical focus.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Level</th>
<th>Format</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E331</td>
<td>American Studies – English</td>
<td>3</td>
<td>One year</td>
<td>One unit</td>
<td>E201 English 2 or E202 English 2 with department recommendation</td>
<td>This course combines the study of American Literature and United States History and fulfills the requirement for third-year English. This course is team taught by teachers from the English Department and the Social Studies Department. Students must be enrolled concurrently in E331 and G331 History. (NCAA Core Course)</td>
</tr>
<tr>
<td>E336</td>
<td>American Studies – English</td>
<td>3</td>
<td>One year</td>
<td>One unit (Double class)</td>
<td>E202 English 2 or E208 English 2 or department recommendation</td>
<td>American Studies offers the student an opportunity to examine the question, “What is an American?” By studying America’s history, literature, music, art, and architecture, the student can discover what makes him or her special as an American. This course combines a chronological or thematic study of United States history and American literature and fulfills the requirements for junior English and United States History. Students must be enrolled concurrently in E336 and G336. Principles of the fine arts are integrated into the language arts curriculum. (NCAA Core Course)</td>
</tr>
<tr>
<td>E341</td>
<td>Reading Improvement</td>
<td>3,4</td>
<td>One-half</td>
<td>One-half unit</td>
<td>E200 English 2 or E201 English 2 or E220 English 2 or E290 English 2 or department recommendation</td>
<td>Reading Improvement is designed for students reading below grade level. The course concentrates on reading skills needed by students who intend to enter the working world or pursue further education. In addition to increasing comprehension and vocabulary skills, the course aims at developing an appreciation for reading as a lifelong activity. (Juniors who have not met the District minimum reading requirement must take this course concurrently with E301 English 3).</td>
</tr>
<tr>
<td>E352</td>
<td>Professional Writing and Communications</td>
<td>3,4</td>
<td>One-half</td>
<td>One-half unit</td>
<td>Successful completion of E202 or higher OR department recommendation</td>
<td>This course is designed for college-bound students. The primary objective of this class is to prepare students to communicate effectively in professional settings, including how to plan for and deliver messages through both printed and digital media as well as interpersonal and public communication. In accomplishing these objectives, the course will develop the following Common Core Skills: producing clear and coherent writing in which development, organization, and style are appropriate to the purpose and task; writing arguments to support claims; utilizing relevant evidence to support claims; using varied syntax to create cohesion.</td>
</tr>
<tr>
<td>E400</td>
<td>Practical English</td>
<td>4</td>
<td>One</td>
<td>One unit</td>
<td>Placement through staff conference recommendation</td>
<td>This course is an extension of E300 Business English and provides continuing practice in all communication skills. Instruction is individualized to meet each student’s needs.</td>
</tr>
<tr>
<td>E401</td>
<td>Modern World Literature</td>
<td>4</td>
<td>One-half</td>
<td>One-half unit</td>
<td>E301 English 3 or E331 American Studies – English or E302 English 3 or E336 American Studies English with department recommendation</td>
<td>This course helps students develop a better understanding of various cultures through literature and writing. Literature from around the world is introduced. Activities concentrate on exploration of common cultural values. (NCAA Core Course)</td>
</tr>
<tr>
<td>E402</td>
<td>English Literature Survey</td>
<td>4</td>
<td>One-half</td>
<td>One-half unit</td>
<td>E302 English 3 or E336 American Studies – English (D, or C with department recommendation)</td>
<td>This course will help students develop an awareness of the history and development of primarily English literature. Discussion focuses on the themes, style, structure, and language of works of Britain’s major writers. Writing emphasizes analysis of literature. (NCAA Core Course)</td>
</tr>
<tr>
<td>E403</td>
<td>Senior Composition</td>
<td>4</td>
<td>One-half</td>
<td>One-half unit</td>
<td>E302 English 3 or E336 American Studies – English (D, or C with department recommendation)</td>
<td>Students in this course will concentrate on improving writing skills. Emphasis will be on research. Instruction will focus on organization, unity, and accuracy. (NCAA Core Course)</td>
</tr>
</tbody>
</table>

_Everything you can imagine is real._

Pablo Picasso
Our lives begin to end the day we become silent about things that matter.
— Martin Luther King, Jr.
I Have a Dream; Writings and Speeches that Changed the World

**E404 English Literature Survey**
**LEVEL: 4**
One-half year
One-half unit
PREREQUISITE: E302 English 3 or E336 American Studies—English (A,B,C), E308 English 3 or department recommendation
This course will help college-bound students develop an awareness of the history and development of English literature. Discussion focuses on the themes, style, structure, and language of works of Britain's major writers. Writing emphasizes critical thinking and analysis of literature. (NCAA Core Course)

**E405 Expository Composition**
**LEVEL: 4**
One-half year
One-half unit
PREREQUISITE: E302 English 3 or E336 American Studies—English (A,B,C), E308 English 3 or department recommendation
Students in this course develop writing skills, concentrating on organization, unity, and accuracy in expressing ideas. After instruction on how to conduct research and report the findings, students will write a research paper. This course should be given special consideration by every student who plans to go to college. (NCAA Core Course)

**E411 Communication Skills**
**LEVEL: 4**
One-half year
One-half unit
PREREQUISITE: E301 English 3 or E331 American Studies—English or E302 English 3 or E336 American Studies—English with department recommendation
Focusing on writing, reading, speaking, and listening, this course aims at developing communications skills useful in contemporary society. The writing program emphasizes effective written communication for a variety of purposes and includes a short research project. (NCAA Core Course)

**E419 Advanced Placement Literature & Composition**
**LEVEL: 4**
One year
One unit
PREREQUISITE: E319 English 3 (A,B) or E302 English 3 or E336 American Studies with department recommendation
This honors course emphasizes college-level composition and literature. The student is prepared to enter college with a strong English background. Students are encouraged to take the Literature and Composition Advanced Placement Examination of the College Entrance Examination Board. (NCAA Core Course)

**E420 English 4**
**LEVEL: 4**
One year
One unit
PREREQUISITE: Placement through staff conference recommendation
This senior-level course is designed to increase students' skills in the areas of word usage, reading comprehension, and writing. Individual objectives are developed for each student.

**E423 Introduction to Rhetoric**
**LEVEL: 4**
One year
One unit
PREREQUISITE: Department recommendation
This course will introduce students to the critical thinking and reading skills needed to succeed in writing at the college level. Students successful in this course may earn direct placement into English 101 at Harper College. (NCAA Course)

**E62503 College Composition**
**LEVEL: 4**
One year
One unit
PREREQUISITE: Harper College admission requirements.
English 625 is a dual-credit course focused on college-level reading and writing. The credit earned in this course fulfills high school graduation requirements and provides transcripted Harper College credit. Students will compose essays that work on foundational skills: analysis, synthesis, evaluation, and argument. All writing will be thesis-support based and will utilize textual evidence from non-fiction texts. E62503: Harper College ENG101, Composition, 3 college credits, IAI C1 900 (NCAA Core Course)

**E490 Reading 4**
**LEVEL: 4**
One year
One unit
PREREQUISITE: Placement through staff conference recommendation
This course is a continuation of the work begun in the E170, E190, E290, and E390 courses. Continued drill and practice is given in the areas of word recognition, vocabulary development, reading comprehension and practical study skills.
## Design Pathway

- **Freshman**
  - H236 Design Studio 1 Unit

- **Sophomore**
  - H276 Fashion Construction 1 1 Unit
  - H244 Housing/Interior Design 1/2 Unit

- **Junior**
  - H277 Fashion Construction 2 1 Unit
  - H483/H683 Design I.S. 1 Unit - Dual Credit

- **Senior**
  - H477/H67702 Fashion Construction I.S. 2 1 Unit - Dual Credit
  - H446 Interior Design I.S. 1 Unit

## Education Pathway

- **Freshman**
  - H256 Early Childhood Studies 1 Unit

- **Sophomore**
  - H257 Early Childhood Education 1 Unit

- **Junior**
  - H456/H457/H657 Advanced ECE I.S. 1 Unit - Dual Credit

- **Senior**
  - H453/454/455 Education Internship 1 Unit
  - H456/H457/H657 Advanced ECE I.S. 1 Unit - Dual Credit

## Culinary Pathway

- **Freshman**
  - H266 Culinary Arts 1 1 Unit

- **Sophomore**
  - H225/H667 P.I.E. I.S. 1/2 Unit - Dual Credit
  - H267/H665 Culinary Arts 2 1 Unit - Dual Credit
  - H224 P.I.E. 1/2 Unit

- **Junior**
  - H333/H667 Chemistry of Foods 1 Unit - Dual Credit

- **Senior**
  - H466 Culinary Arts I.S. 1 1 Unit - Dual Credit
  - H467 Culinary Arts I.S. 2 1 Unit - Dual Credit
Family and Consumer Science courses are designed for all students. These courses emphasize the understanding of self and others, management of resources, personal and professional productivity, and career exploration.

The following courses are arranged for students interested in each program area; however, courses may be taken in any order as long as prerequisites are met.

**H171 Introduction to Life Studies**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** Placement through staff recommendation  
This course is designed to specifically address needs of a unique population. Students will receive instruction in the areas of personal independence, consumer decision making, life and home management skills, and personal skill development. There is an emphasis on individual written and spoken language development in regard to daily living skills.

**H224 PIE (Practices in Entrepreneurship)**  
**LEVEL: 2,3,4**  
One-half year  
One-half unit  
**PREREQUISITE:** Successful completion of at least one semester of a Foods course or departmental approval  
**REQUIREMENT:** Concurrent enrollment in H224 PIE (Practices in Entrepreneurship)  
This integrated class offers students an opportunity to use their culinary skills in a practical business application. Students who enroll in this two-period connected class will learn the skills required to start and manage a small business. Students will apply economic, management, marketing, accounting, and business law concepts in a bakery/coffee shop scenario.

**H225 PIE (Practices in Entrepreneurship Independent Study)**  
**LEVEL: 2,3,4**  
One-half year  
One-half unit  
**PREREQUISITE:** Successful completion of H224 PIE and/or departmental approval  
This integrated class offers students the opportunity to refine and enhance the skills introduced in H224 PIE. Students who enroll in this two-period connected class will be offered the opportunity for increased responsibilities in the management of the bakery/coffee shop. Students will explore more advanced culinary techniques such as European-style pastry, cake decorating, recipe development, and production management. H66702: Harper College FSM114, Food Standards and Sanitation, 2 college credits.

**H236 Design Studio**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** Successful completion of at least one semester of a Foods course  
Are you interested in the areas of Fashion & Interior Design? This course is designed to strengthen a student's interest and background in design concepts. Opportunities will be provided for students to explore the curriculum within creative teams and through individual activities. Students will develop an awareness of construction techniques, visual communication, design elements, style trends, and fashion merchandising strategies.

**H243 Consumer Management**  
**LEVEL: 2,3,4**  
One-half year  
One-half unit  
Consumers spend their money in today’s changing marketplace. This course provides an understanding of how to manage personal resources and cope with common consumer issues.

**H244 Housing/Interior Design**  
**LEVEL: 2,3,4**  
One-half year  
One-half unit  
Students will learn about the many aspects of housing and interior design for personal or professional use. Factors which influence housing, reading and evaluating floor plans, furniture selection, the treatment of floors and windows, and the elements and principles of design will be covered in this introductory course. Career opportunities in related fields are explored.

**H256 Early Childhood Studies**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
This course is designed for students interested in examining the broad spectrum of child development theory from prenatal development through the school-aged years. Various philosophies, along with current research, will be used to present the areas of physical, social, emotional, and intellectual development, prenatal to age five. Through discussion, critique and research, class activities will add direction and focus to career opportunities in the field of child development. Students will have the opportunity to earn the ECE level 1 credential while enrolled in this course.
H257 Early Childhood Education  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: H256 Early Childhood Studies and/or Department approval
This course provides the student an opportunity to apply the information learned in Early Childhood Studies. Working in an actual preschool lab setting, students are provided the chance to work with children ages 3-1/2 to 5 years. Students fulfill the role of "teacher" and are responsible for the planning, implementation, and evaluation of lessons.

H266 Culinary Arts 1  LEVEL: 1,2,3,4
One year  One unit
Students learn that cooking starts with planning and preparation and ends with serving, tasting, presentation, and evaluation. Units include: pastries, vegetables, poultry, breads, rice/pasta, and nutrition. Our students gain a variety of skills through the practical application of reading, measuring, teamwork, and individual creativity. During second semester, students will learn to plan and prepare various meals. Emphasis will focus on regional foods of the United States, eggs, and dairy.

H267/H66502 Culinary Arts 2  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: H266 or department approved
This class starts with planning and preparation of food and ends with serving, tasting, presentation, and evaluation. Students apply a variety of skills through the practical application of reading, measuring, teamwork, and individual creativity. Units include meats, vegetables, eggs, seafood, cakes, salads, fruit, soups, appetizers, sauces, and special diets. During second semester, students will explore the exciting areas of gourmet and multicultural food experiences through laboratory preparation and research activities. A quantity food production experience will introduce students to the food service industry. H66502: Harper College FSM109 Intro to Food Prep/Production, 4 credit hours.

H276 Fashion Construction I  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: H236 or department approved
This course is designed for beginning students interested in fashion. Working with sewing machines, students are placed in an independent environment with semester project requirements. Emphasis is placed on creativity, fabric and pattern design, and illustration. Professional sewing equipment is available for student use. Options for the year include a fashion show, design contests, and career opportunities in the fashion industry. Most equipment is supplied except for personal project expenses.

H277 Fashion Construction II  LEVEL: 3,4
One year  One unit
PREREQUISITE: Successful completion of H276 Fashion and/or department approval
This course is designed for experienced students interested in fashion. Working with sewing machines, students are placed in an independent environment with semester project requirements. Emphasis is placed on creativity, fashion design and merchandising, special fabrics, and advertising. Options for the year include color analysis, fashion show production, and illustration and design contests. Work opportunities are experienced through field trips related to the fashion industry. Most equipment is supplied except for personal project expenses.

H333 Chemistry of Foods  LEVEL: 3,4
(Schaumburg and Palatine Only) (class meets for 2 periods)
One unit
PREREQUISITE: 2 years of Science, and 1 year of Foods (H266 or H267) or department approval and concurrent enrollment in H333
Chemistry of Foods provides students the opportunity to participate in food preparation while learning the scientific basis of chemical and biological processes involved in the culinary arts. Students completing this course will attain Food Safety Certification status by building on and applying the concepts of food preparation and bacteriology. This course will provide guided practice and certification for the student who is pursuing a career in the culinary field, while providing an overview of the restaurant industry for the student who is still expanding their horizons. Students will apply what they learn through participation in an in-house restaurant/catering component. The class meets two periods, and is team taught by teachers from the Family and Consumer Sciences and Science departments. Students enrolled in H333 who pass the Food Safety Certification Examination will have the opportunity to earn college credit H66702: Harper College, FSM 114, Food Standards and Sanitation, 2 credit hours.
Seek first to understand, then to be understood.

Stephen Covey
Best-selling author and professor

H346 Living on Your Own   LEVEL: 3,4
One semester
This course presents a fresh look at life in today's world. It studies the foundation of adult living, which includes developing communication and problem-solving skills, dating, marriage, basic nutrition, food preparation, wardrobe selection and care, personal finance, living arrangements, and college and vocational studies. LOYO will help students adapt to living independently in a variety of settings following high school graduation.

H352 Career Internship 1,
H452 Career Internship 2   LEVEL: 3,4
One or two years
Two units per year
(Students also must enroll in H362, H372, or H382 Work Experience)
Students must be 16 years of age or older.
Career Internship fulfills a student's need to obtain training in the world of work while developing skills in both employee/employer relationships and living as an independent consumer. Students may enroll in Career Internship for one or two years. This program provides opportunities for on-the-job instruction related to Family and Consumer Sciences. On-the-job training may include work in care and guidance of children, fashion merchandising, clothing, food services or production, health occupations, and other personal and public service occupations. Daily classroom activities are designed to assist students with job adjustment, learning to be a responsible consumer, career planning, and independent study relating to each student's occupational interest. In the second year of the program, a training plan is developed which builds on skills learned the previous year. The first year of this program satisfies the State/District 211 Consumer Education requirement.

H453, H454 Secondary Education Internship   LEVEL: 3,4
One to two units per year
PREREQUISITE: Department approval; application process.
Elementary Education Internship has been developed in cooperation with School Districts 15 and 54. Students enrolling in this course should have an interest in working with children and will explore careers in the field of elementary education, psychology, and social services. They must accept the responsibility of good citizenship, regular attendance, and cooperation in working closely with one or more supervising teachers to carry out a variety of classroom tasks and activities.

H455 Elementary Education Internship   LEVEL: 3,4
Two units
PREREQUISITE: H256 & H257 recommended. Department approval; application process.
Elementary Education Internship has been developed in cooperation with School Districts 15 and 54. Students enrolling in this course should have an interest in working with children and will explore careers in the field of elementary education, psychology, and social services. They must accept the responsibility of good citizenship, regular attendance, and cooperation in working closely with one or more supervising teachers to carry out a variety of classroom tasks and activities.
Family and Consumer Sciences Independent Study

PREREQUISITE: Successful completion of course sequence or department approval

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Division</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>H456</td>
<td>Advanced ECE Indep. Study 1</td>
<td>1 year/one unit</td>
<td></td>
</tr>
<tr>
<td>H457</td>
<td>Advanced ECE Indep. Study 2</td>
<td>1 year/one unit</td>
<td></td>
</tr>
<tr>
<td>(H65702: Harper College, ECE 101 Intro to Early Childhood Education, 3 college credits)</td>
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<tr>
<td>H466</td>
<td>Culinary Arts Indep. Study 1</td>
<td>1 year/one unit</td>
<td></td>
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<tr>
<td>H467</td>
<td>Culinary Arts Indep. Study 2</td>
<td>1 year/one unit</td>
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<tr>
<td>(Hoffman Estates and Fremd High School only – H66702: Harper College, FSM 114 Food Standards and Sanitation, 2 college credits)</td>
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<tr>
<td>H476</td>
<td>Fashion Construction Indep. Study 1</td>
<td>1 year/one unit</td>
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<tr>
<td>H477/H67702</td>
<td>Fashion Construction Indep. Study 2</td>
<td>1 year/one unit</td>
<td></td>
</tr>
<tr>
<td>(H67702: Harper College, FAS 100 Industrial Sewing Methods, 3 college credits)</td>
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<tr>
<td>H482</td>
<td>Design Indep. Study 1</td>
<td>1 year/one unit</td>
<td></td>
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<tr>
<td>H483</td>
<td>Design Indep. Study 2</td>
<td>1 year/one unit</td>
<td></td>
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<tr>
<td>(H68302: Harper College, FAS 112 Fashion Basics, 3 college credits)</td>
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<tr>
<td>H446</td>
<td>Interior Design Indep. Study 1</td>
<td>1 year/one unit</td>
<td></td>
</tr>
<tr>
<td>H447</td>
<td>Interior Design Indep. Study 2</td>
<td>1 year/one unit</td>
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</tr>
</tbody>
</table>

Students who are interested in exploring a specific Family and Consumer Sciences discipline are provided the opportunity to pursue an in-depth study of the special interest area. Students work with the instructor to plan and complete individual projects based on the student’s interest and career goals.
## Mathematics

**Freshman**
- M328 1 Unit  
  Acc. Algebra 2/Pre-Calculus
- M218 1 Unit  
  Acc. Geometry
- M217 1 Unit  
  Plane & Solid Geometry
- M147 1.5 Units  
  Advanced Algebra 1
- M117 1 Unit  
  Algebra 1
- M114 1 Unit  
  Algebra 1
- M113 2 Units  
  Algebra 1
- M111 1 Unit  
  Intro. to Sec. Mathem.

**Sophomore**
- M438 1 Unit  
  Trig./Calculus A
- M328 1 Unit  
  Acc. Algebra 2/Pre-Calculus
- M308 1 Unit  
  Advanced Algebra 2
- M317 1 Unit  
  Algebra 2
- M248 1.5 Units  
  Adv. Geometry & Trig.
- M217 1 Unit  
  Plane & Solid Geometry
- M214 1 Unit  
  Plane & Solid Geometry
- M212 1 Unit  
  Exp. of Geometric Topics

**Junior**
- M479 1 Unit  
  AP Calculus BC
- M438 1 Unit  
  Trigonometry/Calculus A
- M408 1 Unit  
  Adv. Trig./Pre-Calculus
- M417/M64702 1 Unit  
  Trigonometry/Pre-Calculus
- M317 1 Unit  
  Algebra 2
- M314 1 Unit  
  Algebra 2
- M214 1 Unit  
  Plane & Solid Geometry
- M212 1 Unit  
  Exp. of Geometric Topics
- M312 1 Unit  
  Concepts in Mathematics

**Senior**
- M578 1 Unit  
  Multivariable Calculus
- M479 1 Unit  
  AP Calculus BC
- M449 1 Unit  
  AP Calculus AB
- M419 1 Unit  
  AP Statistics
- M447 1 Unit  
  Calculus
- M459 1.5 Units  
  AP Calculus AB
- M435/M63502 1 Unit  
  Quantitative Literacy
- M434 1 Unit  
  Data Modeling w/ Algebra
- M314 1 Unit  
  Algebra 2

**Computer Science Electives**
- M256 1 Unit  
  Intro to Computer Programming and Software Design
- M266 0.5 Unit  
  Apps. in Computer Programming
- M319 1 Unit  
  AP Computer Science Principles
- M359 1 Unit  
  AP Computer Science A
- M448 1 Unit  
  Mobile App Development
- M468 1 Unit  
  Ind. Computer Science

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Solid lines are mainstream sequences; dashed lines are alternative selections made through recommendations.
All freshmen in High School District 211 enroll in a mathematics course. Placement at the freshman level is determined by entrance test scores and junior high school performance. A second year of mathematics is taken during the sophomore year and additional mathematics courses are required until the student successfully completes a 300-level course.

Freshmen who have successfully completed junior high school algebra may be placed in M217 Plane and Solid Geometry or M218 Accelerated Plane and Solid Geometry. Other freshmen may be placed in M117 Algebra 1, M114 Algebra 1, M113 Algebra 1, M111 Introduction to Secondary Mathematics, M120 Essential Mathematics, or M100 Applied Mathematics 1.

A student who fails to meet the grade prerequisite for any course must repeat the requisite course to improve the grade in order to proceed to the next sequential course.

College-bound students are encouraged to complete four years of mathematics, including trigonometry.

The Mathematics Departments of High School District 211 provide honors and accelerated programs which allow students to complete up to three semesters of calculus leading to Advanced Placement examinations. Advanced Placement testing in computer science (JAVA) and statistics also are available.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Level</th>
<th>Duration</th>
<th>Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>M100, M200</td>
<td>Basic Mathematical Applications</td>
<td>1, 2</td>
<td>One year</td>
<td>One unit</td>
<td>Placement through staff conference recommendation</td>
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<td>This course is designed to teach students basic computational and money skills to increase the student’s independence in the community. Money skills, whole number operations, time, and calculator usage are emphasized.</td>
</tr>
<tr>
<td>M111</td>
<td>Introduction to Secondary Mathematics</td>
<td>1, 2</td>
<td>One year</td>
<td>One unit</td>
<td>Placement through staff conference recommendation</td>
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<td>This course reinforces arithmetic skills, as their mastery is essential for continued study of mathematics. Pre-Algebra skills of variable recognition, signed numbers, formulas, and single variable equations are introduced as well as beginning geometry topics.</td>
</tr>
<tr>
<td>M113</td>
<td>Algebra 1</td>
<td>1, 2, 3</td>
<td>One year</td>
<td>Two units</td>
<td>Acceptable performance on the entrance examination or department approval</td>
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<td></td>
<td>This course introduces students to the fundamental principles of algebra with extended instruction and practice. Algebraic symbolism, simplifying expressions, solutions to elementary equations, and the graphic representations associated with variables will be introduced. (NCAA Core Course, 1 unit)</td>
</tr>
<tr>
<td>M114</td>
<td>Algebra 1</td>
<td>1, 2, 3</td>
<td>One year</td>
<td>One unit</td>
<td>Acceptable performance on the entrance examination or department approval</td>
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<td></td>
<td></td>
<td>This course introduces students to the fundamental principles of algebra. Algebraic symbolism, simplifying expressions, solutions to elementary equations, and the graphic representations associated with variables will be introduced. (NCAA Core Course)</td>
</tr>
<tr>
<td>M117</td>
<td>Algebra 1</td>
<td>1</td>
<td>One year</td>
<td>One unit</td>
<td>Acceptable performance on entrance examination</td>
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<td></td>
<td>This course introduces students to the fundamental principles of algebra. Algebraic symbolism, simplifying expressions, solutions to equations, and the graphic representations associated with variables are among the course topics. This course emphasizes the algebraic processes applied to word problems. (NCAA Core Course)</td>
</tr>
<tr>
<td>M147</td>
<td>Advanced Algebra 1</td>
<td>1</td>
<td>One year</td>
<td>One and one-half units</td>
<td>Acceptable performance on entrance exam</td>
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<td></td>
<td>This accelerated course is a comprehensive study of algebra including algebraic symbolism, simplifying expressions, solutions to equations, and graphic representations associated with variables. The course will also include advanced techniques of graphing, solving equations and inequities, and functions in preparation for M248 Advanced Geometry and M247 Advanced Trigonometry. This course requires a graphing calculator. (NCAA Core Course)</td>
</tr>
<tr>
<td>M170</td>
<td>Essential Mathematics</td>
<td>1</td>
<td>One year</td>
<td>One unit</td>
<td>Placement through staff conference recommendation</td>
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<td>This course reinforces arithmetic skills aligned to the state’s performance indicators with emphasis on number operation, patterns, ratios, proportions, and estimation. Pre-algebra skills of variable recognition, formulas, and single variable equations are introduced as well as beginning Geometry concepts such as points, lines, planes, and space.</td>
</tr>
<tr>
<td>M212</td>
<td>Explorations of Geometric Topics</td>
<td>2, 3, 4</td>
<td>One year</td>
<td>One unit</td>
<td>M114, M113, M111</td>
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<td>The course exposes students to a sampling of basic geometric topics including measuring, points, lines, planes, perimeter, area, volume, similarity, congruence, polygons and transformations. This course does not meet the NCAA clearinghouse rules. Students desiring to take Algebra 2 must enroll in at least M212 to satisfy the geometry prerequisite of Algebra 2.</td>
</tr>
</tbody>
</table>
M214 Plane and Solid Geometry  LEVEL: 2,3,4
One year One unit
PREREQUISITE: M113 Algebra, M114 Algebra 1, or M117 Algebra 1 (D)
This study of geometry involves studying the axioms and theorems that relate points, lines, planes, and solids. An overview of plane and solid geometry is presented through geometric constructions, measurement formulas, and limited writing of formal proofs. (NCAA Core Course)

M217 Plane and Solid Geometry  LEVEL: 1,2,3
One year One unit
PREREQUISITE: M117 Algebra 1 (A,B,C) or acceptable performance on Algebra examinations
This comprehensive study of plane and solid geometry includes constructions, formulas for measurement, and formal proofs. It is based on the axioms and theorems that relate points, lines, planes, and solids. Algebraic techniques are integrated into the solution of many geometric problems. (NCAA Core Course)

M218 Accelerated Plane and Solid Geometry  LEVEL: 1,2
One year One unit
PREREQUISITE: High performance on Algebra examinations or department approval
This accelerated course is a comprehensive study of plane and solid geometry including constructions, formulas for measurement and formal proofs. It is based on the axioms and theorems that relate points, lines, planes, and solids. Many of the topics are covered in great depth, especially area and volume of solids. Additional emphasis is placed on the integration of algebraic techniques in solving geometric problems. (NCAA Core Course)

M248 Advanced Geometry and Trigonometry  LEVEL: 2
One year One and one-half units
PREREQUISITE: M147 (A,B,C)
This accelerated course is a comprehensive study of plane and solid geometry including constructions, formulas for measurement and formal proof. It is based on the axioms and theorems that relate points, lines, planes, and solids. Many topics are covered in great depth, especially area and volume of solids. Additional emphasis is placed on the integration of algebraic techniques in solving geometric problems. In the study of trigonometry, the student applies algebra and geometry skills to circular and periodic functions with applications in preparation for M348 Advanced Algebra 2/Pre-Calculus. This course requires a graphing calculator. (NCAA Core Course)

M256 Introduction to Computer Science and Software Design  LEVEL: 1,2,3,4
One year One unit
PREREQUISITE: None
Students are introduced to the fundamentals of computer science through the creation of software applications. Examples may include: games, phone apps, interactive web pages, networked programs, and interactive animations. No previous knowledge of computer programming is required. (NCAA Core Course)

M266 Applications of Computer Programming  LEVEL: 2,3,4
One-half year One-half unit
PREREQUISITE: M256 Computer Programming: A Multimedia Approach and department approval
Through independent study, students apply their computer programming skills to complete highly individualized projects. (NCAA Core Course)

M270 Algebra and Geometry Concepts  LEVEL: 2
One year One unit
PREREQUISITE: Placement through staff conference recommendation
This course reinforces skills needed for achieving early high school benchmarks of the Illinois Learning Standards. It introduces algebra concepts such as exponents, algebraic expressions, and graphing. Beginning plane and solid geometry topics are introduced.

M296 Geometry in Construction  LEVEL: 2,3
One year One unit
PREREQUISITE: M114 or M117
The purpose of this course is to have students experience putting geometry into action by building real world construction projects. Geometry in Construction is team taught by both math and applied technology teachers. This interdisciplinary course integrates geometry and construction topics through the building of significant construction projects. The goal is to provide students with a better understanding of both the geometry and the construction content taught in the math department, and prepares students for the subsequent math courses. Students will gain hands-on, real-world experience in different areas of construction. Additional emphasis is given to
teamwork, problem-solving, and the promotion of employable attributes. This is a double-period course that offers both a Math credit and an Applied Technology credit. (NCAA Core Course)

**M308 Advanced Algebra 2**  LEVEL: 2  
One year  One unit  
**PREREQUISITE: M217 with department approval**  
This advanced course is designed for students who have proficient knowledge of algebra and geometry. M308 Advanced Algebra 2 will place an emphasis on questioning, summarizing, justifying, and evaluating. Ideas presented involve advanced techniques of graphing, methods of solving equations and inequalities, and functions. Students are prepared to begin their study of M408 Advanced Trigonometry/PreCalculus. This course requires a graphing calculator. (NCAA Core Course)

**M312 Concepts in Mathematics**  LEVEL: 3,4  
One year  One unit  
**PREREQUISITE: Department chair approval and two years of credit in high school mathematics**  
The course exposes students to a sampling of basic mathematical topics including percent, interpretation of data, probability, tables and graphs, polynomial operations, linear and quadratic functions. This course does not meet the NCAA clearinghouse rules. Students desiring to take Trigonometry must enroll in at least M314 to satisfy the Algebra 2 prerequisite of Trigonometry.

**M314 Algebra 2**  LEVEL: 2,3,4  
One year  One unit  
**PREREQUISITE: M214 Plane and Solid Geometry**  
This course reviews topics introduced in M114 Algebra 1 and expands upon them. All standard Algebra 2 topics are covered. The topics include methods of solving equations and inequalities, graphing techniques, conics, and logarithms. This course requires a graphing calculator. (NCAA Core Course)

**M317 Algebra 2**  LEVEL: 2,3,4  
One year  One unit  
**PREREQUISITE: M117 Algebra 1 (A,B,C) and M217 Plane and Solid Geometry**  
This course is designed for students who have a good knowledge of algebra and geometry. Concepts presented in earlier course work are reviewed and expanded. Ideas presented involve advanced techniques of graphing, methods of solving equations and inequalities, and functions. Students are prepared to begin their study of pre-calculus. This course requires a graphing calculator. (NCAA Core Course)

**M319 AP Computer Science Principles**  LEVEL: 1,2,3,4  
One year  One unit  
**PREREQUISITE: Concurrent enrollment in any accelerated math course or completion of M256.**  
AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to creative aspects of programming, using abstractions and algorithms, working with large data sets understandings of the Internet and issues of cybersecurity, and impacts of computing that affect different populations. Students will learn to use current technologies in order to solve problems and create meaningful computational artifacts. (NCAA Core Course)

**M328 Accelerated Algebra 2/Pre-Calculus**  LEVEL: 1,2,3  
One year  One unit  
**PREREQUISITE: M218 (A,B) or department approval**  
This accelerated course is designed for students who have an excellent knowledge of algebra and geometry. M328 Accelerated Algebra 2 briefly reviews concepts presented in earlier course work and then rigorously expands and applies them to other areas of mathematics. In addition, selected topics from pre-calculus are studied. Ideas presented in this course involve advanced techniques of graphing and solving equations and inequalities and prepares students to take M439 Trigonometry/Calculus A. This course requires a graphing calculator. (NCAA Core Course)

**M348/M64702 Advanced Algebra 2/PreCalculus**  LEVEL: 3  
One year  One and one-half units  
**PREREQUISITE: M248 (A,B,C)**  
This accelerated course rigorously expands upon the study of advanced techniques of graphing, solving equations and inequalities, functions (including circular and periodic functions), and trigonometric identities. Students will apply their skills to series and sequences, probability, statistics, limits, and derivative in preparation for M459 Advanced Placement Calculus AB. This course requires a graphing calculator. (NCAA Core Course)  
M64702: Harper College Course MTH103, College Algebra, 3 college credit hours.
M359 Advanced Placement Computer Science A  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: Concurrent enrollment in M328 or higher, completion of M319 or M256 (A,B,C) or department approval
The JAVA language allows the programmer to process data as well as perform mathematical calculations. In Advanced Placement Computer Science, data structures, programming algorithms, and structured programming are used. Students are expected to use analytical thinking in solving problems and use top-down design methods in developing programs. AP Computer Science is a strongly encouraged elective any time course prerequisites are met and can be taken in conjunction with another math class. (NCAA Core Course)

M370 Consumer Mathematics  LEVEL: 3, 4
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course targets consumer math skills used in everyday situations such as paying taxes, purchasing a car, investing and managing a household. A full year in this course meets the state of Illinois requirement for consumer education.

M408 Advanced Trigonometry and Pre-Calculus  LEVEL: 3
One year  One unit
PREREQUISITE: M308 with department approval
This advanced course is designed to create a foundation of knowledge needed for success in an advanced placement math course senior year. In the study of trigonometry, the student will apply algebra and geometry skills to circular and periodic functions with applications. In the study of pre-calculus, students will apply their skills to series and sequences, probability, statistics, limits, and derivatives in preparation for M419 AP Statistics and M449 AP Calculus AB. This course requires a graphing calculator. (NCAA Core Course)

M417/M64702 Trigonometry - Calculus A  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: M319 or M256 (A,B,C) or department approval
In the study of trigonometry, the student applies algebra and geometry skills to circular and periodic functions and rotational velocity. Additional time is spent on extending

M419 Advanced Placement Statistics  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: M328 (with concurrent enrollment in M435), or M408, M417, or M317 (with concurrent enrollment in M417), (A,B,C)
The study of statistics is now a requirement for many university majors. Students in this class will perform statistical tests on data sets using technology in order to organize, analyze, and predict outcomes. This course will follow the guidelines of the Advanced Placement Statistics program. Students are encouraged to take the Advanced Placement exam of the College Entrance Examination Board. This course requires use of a computer and graphing calculator. (NCAA Core Course) AP Statistics is a strongly encouraged elective any time course prerequisites are met and can be taken in conjunction with another math class.

M434 Data Modeling with Algebra  LEVEL: 4
One year  One unit
PREREQUISITE: M314 Algebra 2
This course develops beginning and intermediate algebra skills and includes an introduction to statistics. An emphasis will be placed on data modeling using linear, quadratic, exponential, and logarithmic. Students will learn how to organize and interpret data and make predictions and decisions based on data. The course will be delivered through authentic application, problem-based instruction designed to build mathematical conceptual understanding and critical thinking skills. Students who earn a C- or above over 2 semesters will be able to apply this course for college placement at community colleges and some state universities. (NCAA Core Course)

M435/M63502 Quantitative Literacy  LEVEL: 4
One year  One unit
PREREQUISITE: 22 Math ACT or ALEKS score 46 or greater or MTH 080 score 70% or higher.
This dual enrollment course focuses on the analysis and solution of problems and includes representing and analyzing data using statistical measures, using logical reasoning in a real-world context, estimating, approximating, and judging the reasonableness of answers, and the use of appropriate approaches and tools, such as calculators and computers, in formulating and solving real-world problems. This course is aligned to MTH101 Quantitative Literacy at Harper Community College. Successful completion of the course results in college credit. M63502: Harper College Course MTH101, Quantitative Literacy, 4 college credit hours. (NCAA Core Course)

M438 Trigonometry - Calculus A  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: M328 Accelerated Algebra 2/Pre-Calculus (A,B) or department approval
In the study of trigonometry, the student applies algebra and geometry skills to circular and periodic functions and rotational velocity. Additional time is spent on extending

It's the possibility of having a dream come true that makes life interesting.
— Paulo Coelho
Alchemist
the trigonometry identities in the first semester. The second semester study of calculus is no longer limited to those preparing for careers in mathematics and sciences. The need and demand for students in business and social studies who can design procedures, predict and relate the principles of higher mathematics are increasing dramatically. This course emphasizes the applications of differentiation. It is the first of three semesters of college-level calculus and satisfies the requirements for the first semester of calculus suggested by the Advanced Placement Program of the College Entrance Examination Board. This course requires use of a graphing calculator. (NCAA Core Course)

**M447 Calculus**  
**LEVEL: 4**  
One year  
One unit  
**PREREQUISITE:** M417 Trigonometry and Pre-Calculus (A,B,C) or department approval  
The study of calculus is no longer limited to those preparing for careers in mathematics and sciences. This course emphasizes the skills of differentiation and integration. These students will not qualify for the Calculus AB Advanced Placement Examination. This course requires a graphing calculator. (NCAA Core Course)

**M448 Mobile Application Development**  
**LEVEL: 2,3,4**  
One year  
One unit  
**PREREQUISITE:** Completion or concurrent enrollment in M319 or M359 or department chair approval  
Students will complete a study of Mobile App development including rapid iterative prototyping. The differences between Web Apps and Native Apps will be highlighted with relationship to the many deployment platforms available. Commonly accepted UI standards will be highlighted for each deployment platform. Students will use agile development techniques to produce quality apps with the intent of making them available to the public.

**M449 Advanced Placement Calculus AB**  
**LEVEL: 4**  
One year  
One unit  
**PREREQUISITE:** M328 Accelerated Algebra 2/Pre-Calculus (A,B) and Trigonometry, M417 Trigonometry, and Pre-Calculus (A), or M408  
The study of calculus is no longer limited to those preparing for careers in mathematics and the sciences. The need and demand for students in business and social studies who can design procedures, predict, and relate the principles of higher mathematics are increasing dramatically. This course emphasizes the various types and applications of differentiation and integration. Students are encouraged to take the Calculus AB Advanced Placement Exam of the College Entrance Examination Board. This course requires use of a graphing calculator. (NCAA Core Course)

**M459 Advanced Placement Calculus AB**  
**LEVEL: 4**  
One year  
One and one-half units  
**PREREQUISITE:** M348 (A,B,C)  
This accelerated course is the high school equivalent to one semester of college-level calculus. The student is provided additional support in advanced algebra and pre-calculus and prepared to enter college with a strong calculus background. Students are encouraged to take the Calculus AB Advanced Placement Exam. This course requires a graphing calculator. (NCAA Core Course)

**M468 Independent Computer Science**  
**LEVEL: 3-4**  
One year  
One unit  
**PREREQUISITE:** M319, M359 or department chair approval  
Students complete an independent computer science project beyond M359 curriculum in a supportive environment. Projects will be designed and developed through consultation with the student’s advisor (teacher) who will act as advisor/consultant throughout the project. (NCAA Core Course)

**M479 Advanced Placement Calculus BC**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** M439 Trigonometry-Calculus A (A,B) or department approval  
This course emphasizes applications of differentiation and integration in relationship to topics from trigonometry and college algebra. Calculus BC concludes the three-semester high school equivalent to two semesters of college-level calculus. The student is prepared to enter college with a strong calculus background. Students are encouraged to take the Calculus BC Advanced Placement Exam of the College Entrance Examination Board. This course requires a graphing calculator. (NCAA Core Course)

**M578/M67802 Multivariable Calculus**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** M479 AP Calculus score of 4 or 5  
This course is the equivalent to a third course in calculus and analytic geometry including: vector analysis, Euclidean space, partial differentiation, multiple integrals, line and surface integrals, and the integral theorems of vector calculus. M67802: Students with AP Calculus BC scores of 4 or 5 are eligible to enroll in optional University of Illinois credit option at a cost of $300. (NCAA Core Course)

**M588/M68802 Independent Study Math**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** M579 (A,B) and department chair approval  
Students complete an independent project beyond M579. Projects will be determined through consultation with the student’s advisor (teacher) who will act as the advisor/consultant throughout the project. M68802: Eligible students may enroll in optional University of Illinois credit option at a cost of set by the university ($800-$1,100). (NCAA Core Course)
Music in Township High School District 211 emphasizes group performance activities. Large ensemble experiences are offered at various levels in Band, Orchestral, and Choral music. Participation in these groups fosters individual musical proficiency while encompassing rudiments of music, music tradition (history), as well as encouraging positive group dynamics.

Education in music promotes development of the whole student and offers each an opportunity to intellectualize in a subjective manner. Through music study, students gain knowledge, skills, and understanding that will enable them to participate productively as individual and group members in the work place and community at large.

Performance groups meet daily during a regularly scheduled school hour. In addition, orchestra directors schedule required evening rehearsals to prepare for major concerts. Participants in all three disciplines are expected to perform scheduled concerts outside the regular school day as a mandatory part of the curriculum.

In instrumental music, larger, more costly instruments are provided by the district. In addition, uniforms and robes are also provided. For those where no provision has been made, the director may ask individuals to purchase apparel. In cases where this causes a financial hardship, each school has a method of accommodating these students. Classroom music is furnished.

Students desiring further preparation and/or academic training in music may elect a one-semester course in music theory or music appreciation.

Members of the performing organization also may be selected to participate in a variety of smaller performing ensembles which meet outside of the school day. These extracurricular groups are active in the community performing for civic, fraternal, and school functions. They also may represent the school in competitions. In addition, the Music Department provides the nucleus for major productions (musical, variety show) giving students further performance opportunities.

Through music discipline, a student develops appreciation, creativity, and sensitivity while becoming an intelligent consumer of the arts. The program also recognizes its obligation to assist those preparing for a career in music.

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**C100 Music Exploration and Performing Arts**  
**LEVEL:** 1,2,3,4  
One to four years  
One-half to one unit per year  
**PREREQUISITE:** Placement through staff conference recommendation

This course is designed for students to experience the principles of sensory, formal technical and expressive qualities of vocal and instrumental music and movement. Students will participate in group performances throughout the year.

**C124 Orchestra 1**  
**LEVEL:** 1,2,3,4  
One year  
One unit

Orchestra 1 provides instruction in violin, viola, cello, and string bass. Rehearsals will include technical studies, concert preparation, chamber music, repertoire expansion, and basic fundamentals of music theory and music history. Individual skills are developed in daily rehearsals and weekly technique classes, which are an integral part of the orchestra program. Using modern string methods, the course will help prepare the student for participation in Orchestra 2. Students must have consent of the instructor to enroll in C124 Orchestra 1.

**C135 Chorus 1**  
**LEVEL:** 1,2,3,4  
One year  
One unit

This course is open to soprano and alto voices who are new to choir at the high school level. Students will receive fundamentals necessary to progress to advanced groups. Individual talent is developed by private and/or class instruction which is an integral part of the chorus program. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals and other events may also be required. No instructor approval is needed for this course.

**C136 Chorus 1**  
**LEVEL:** 1,2,3,4  
One year  
One unit

This course is open to tenor and bass voices who are new to choir at the high school level. Students will receive fundamentals necessary to progress to advanced groups. Individual talent is developed by private and/or class instruction which is an integral part of the chorus program. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals and other events may also be required. No instructor approval is needed for this course.
C157 Band 1  LEVEL: 1,2,3,4
One year  One unit
This course is open to students with previous band experience, as well as those students with limited training and experience. Students will receive fundamentals necessary to progress to advanced groups. Individual skills are developed in daily rehearsals and weekly sectionals/technique classes, which are an integral part of the band curriculum. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals, home football games, basketball games, and other events also may be required. Students with no previous band experience need instructor approval to enroll.

C172 Music Performance Special Topic  LEVEL: 1,2,3,4
One year  One unit
This course is open to students with little to no prior experience who want to explore performing music. The performance experience may vary by school in the district (guitar, piano, etc.). Students will learn the fundamentals of music theory and practical application of technical demands of their instrument. Public performance outside the school day for parents and community may be part of this course.

C224 Orchestra 2  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Audition or consent of the director
Orchestra 2 is open to all intermediate string players. Rehearsals will include technical studies, concert preparation, chamber music, repertoire expansion, and basic fundamentals of music theory and history. Students are given a variety of performance opportunities to increase musical maturity, nurture personal growth, and refine technical abilities. Individual skills are developed in daily rehearsals and weekly technique classes, which are an integral part of the orchestra program. Using modern string methods, the course will help prepare the student for participation in Orchestra 3.

C236 Chorus 2  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Audition or consent of the director
This course is designed to provide intermediate level students with more advanced understanding of musical skills, rehearsal procedures, and general musicianship through the rehearsal and performance of choral literature. Individual talent is developed by private and/or class instruction which is an integral part of the choral program. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals and other events may also be required. Students enrolling in C236 Chorus 2 must have previous training and be able to meet minimum objectives set by the department.

C257 Band 2  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Audition or consent of the director
This course is designed to provide intermediate level students with more advanced understanding of musical skills, rehearsal procedures, and general musicianship through the rehearsal and performance of band literature. Individual skills are developed in daily rehearsals and weekly sectionals/technique classes, which are an integral part of the band curriculum. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals, home football games, basketball games, and other events also may be required. Students enrolling in C257 Band 2 must have previous training on a band instrument and be able to meet minimum objectives set by the department.

C272 Fine and Performing Arts  LEVEL: 1,2,3,4
One year
(C272 runs in partnership with C100)
The Fine and Performing Arts provides a collaborative learning environment in which students create, experience, and perform music of many styles and genres. This course is a unified learning environment in which basic objectives and skills will be met through appropriate activities designed for the students’ level of vocal or instrumental skill. This course runs in partnership with C100 Music Exploration and Performing Arts.

C324 Orchestra 3  LEVEL: 1,2,3,4
One year
PREREQUISITE: Audition or consent of the director
Orchestra 3 is open to all advancing string players. Rehearsals will include intermediate to advanced technical studies, concert preparation, chamber music, repertoire expansion, and fundamentals of music theory and history. Students are given a variety of performance opportunities to increase musical maturity, nurture personal growth, and refine technical abilities. Individual skills are developed in daily rehearsals and weekly technique classes, which are an integral part of the orchestra program. Using modern string methods, the course will help prepare the student for participation in Orchestra 4. In addition, students may be selected to audition for membership in the District 211 Honors Symphony Orchestra. The Honors Orchestra represents the highest level of musicianship and presents an annual concert at one of the five District high schools on a rotating basis.

C336 Chorus 3  LEVEL: 1,2,3,4
One year
PREREQUISITE: Audition or consent of the director
This course is designed to provide intermediate/advanced level students a deeper understanding of musical skills, rehearsal procedure, and general musicianship through the rehearsal and performance of intermediate and advanced choral literature. Individual talent is developed by private and/or class instruction which is an integral part of the choral program. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals and other events may also be required. Students enrolling in C336 Chorus 3 must have previous training and be able to meet minimum objectives set by the department.

C357 Band 3  LEVEL: 1,2,3,4
One year
PREREQUISITE: Audition or consent of the director
This course is designed to provide advancing students understanding of musical skills, rehearsal procedure, and
general musicianship through the rehearsal and performance of intermediate and advanced band literature. Individual skills are developed in daily rehearsals and weekly sectionals/technique classes, which are an integral part of the band curriculum. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals, home football games, basketball games, and other events also may be required. Students enrolling in C457 Band 4 must have previous training on a band instrument and be able to meet minimum objectives set by the department.

**C364 Music Appreciation**  
**LEVEL: 2,3,4**  
**One-half year**  
**One-half unit**  
Music Appreciation recognizes the need to educate students to be intellectual consumers of music. Emphasis is placed on the development of aural skills and the role of music in society. A prior musical background is helpful, but not necessary for enrollment.

**C365 Music Theory**  
**LEVEL: 3,4**  
**One-half year**  
**One-half unit**  
*PREREQUISITE: Department approval*  
Music Theory is an advanced course for those who want to increase their knowledge of the elements of music and/or to prepare for entrance into a college/university level music program. Emphasis is placed on rhythmic, harmonic, and melodic analysis along with development of aural skills. Academic ability and prior participation in high school music (or formal private instruction) are strongly suggested.

**C436 Chorus 4**  
**LEVEL: 1,2,3,4**  
**One year**  
**One unit**  
*PREREQUISITE: Audition or consent of the director*  
Membership in this highly selective group must also be based on the maintenance of proper choral balance. This course is designed to provide intermediate/advanced level students a deeper understanding of musical skills, rehearsal procedure, and general musicianship through the rehearsal and performance of advanced choral literature. Individual talent is developed by private and/or class instruction which is an integral part of the choral program. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals and other events also may be required. Students enrolling in C436 Chorus 4 must have previous training and be able to meet minimum objectives set by the department.

**C424 Orchestra 4**  
**LEVEL: 1,2,3,4**  
**One year**  
**One unit**  
*PREREQUISITE: Audition or consent of the director*  
Orchestra 4 is open to all advanced string players. Rehearsals will provide technical studies, concert preparation, chamber music, repertoire expansion, and basic fundamentals of music theory and history. Students are given a variety of performance opportunities to increase musical maturity, nurture personal growth, and refine technical abilities. Individual skills are developed in daily rehearsals and weekly technique classes, which are an integral part of the orchestra program. In addition, advanced string students will be auditioned for membership in the District 211 Honors Symphony Orchestra. The Honors Orchestra represents the highest level of musicianship and presents an annual concert at one of the five District high schools on a rotating basis.

**C457 Band 4**  
**LEVEL: 1,2,3,4**  
**One year**  
*PREREQUISITE: Audition or consent of the director*  
Since a fairly rigid instrumental balance must be maintained, new members are admitted only when vacancies occur. Emphasis will be placed on advanced band literature, and intellectual and cultural growth. Individual skills are developed in daily rehearsals and weekly sectionals/technique classes, which are an integral part of the band curriculum. Participation at all scheduled formal concerts is a requirement of this class. At the discretion of the director, performances at festivals, home football games, basketball games, and other events also may be required. Students enrolling in C457 Band 4 must have previous training on a band instrument and be able to meet minimum objectives set by the department.

**C469 AP Music Theory**  
**LEVEL: 3,4**  
**One year**  
**One unit**  
*PREREQUISITE: Students must be concurrently enrolled in a 300-level or 400-level music course or department chair approval for students with music experience outside of school.*  
The primary objective of this course is to develop a student’s ability to recognize, understand, describe, and analyze basic materials and processes of tonal music that are heard or presented in a music score. Coursework is designed to integrate the student’s development of aural, compositional, and analytical skills. Emphasis is placed on rhythmic, melodic and harmonic analysis along with the development of aural skills.

**C472 Music Independent Study**  
**LEVEL: 3,4**  
**One year**  
*PREREQUISITE: Concurrent enrollment in a 300 or 400 level music course or department chair approval.*  
This course allows students who are interested in pursuing a career in music to gain additional knowledge and experience in an area of particular interest. With the help and supervision of the instructor, students explore in-depth topics in such areas as composition, conducting, music production and technology, recording, or other related areas. Students working on independent study projects must show personal initiative and self-direction in developing goals and carrying out plans. Research experimentation, project construction, and report writing are among appropriate student activities.
P206/P207 Driver Education  LEVEL: 2,3,4
One-half year  One-quarter unit
PREREQUISITE: Eight (8) one-half credits received in the previous two semesters
The Driver Education program consists of 30 hours of mandatory classroom instruction. This program fulfills the State of Illinois safety education and District 211 graduation requirements. It stresses development of skills, attitudes, and knowledge designed to make every student a safer and more skillful driver. Optional behind-the-wheel experience is available to the student for a fee. (Enrollment governed by the date of the student’s 16th birthday)

P242 Health Education  LEVEL: 3,4
One-half year  One-half unit
Health Education is a required course for graduation by the Illinois State Board of Education. The course provides students with current health information which reflects physical, mental, emotional, and social health and well-being. Emphasis is placed on the development of healthy lifestyles which will provide students with the opportunity to achieve their full potential as human beings.

Whatever you are, be a good one.
– Abraham Lincoln
Wellness

Wellness is a multi-dimensional discipline that promotes lifelong learning in the cognitive (intellect/literacy) and psychomotor (physical) and affective (social/emotional) domains. Philosophically, we look to encourage students to engage in opportunities that promote self-improvement, bolster self-esteem, communicate effectively, and learn to cooperate with others by valuing differences among their peers.

Freshman Wellness is a co-educational structured program that aims to inform and inspire students to develop in the following areas:

• **Decision Making:** Students will comprehend how to make decisions and understand the impact of making healthy decisions over the course of their lifetime.

• **Social/Emotional Learning:** Students acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, show empathy for others, establish and maintain positive relationships while learning to communicate effectively with others.

• **Fitness:** Students will know, apply, and perform the principles and components of health related fitness and regularly participate in physical activity for the purpose of sustaining or improving individual levels of health-related fitness.

• **Nutrition:** Students will comprehend the relationship between nutrition and human performance and how one can impact the quality of their lives through diet.

**Physical Education Course Codes**

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<td>Jr./Sr. Extreme Fitness Male</td>
<td>Jr./Sr. Extreme Fitness Female</td>
<td>Jr./Sr. Extreme Fitness Coed</td>
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This course integrates the health and physical education graduation requirements for the freshman year into one course. The curriculum integrates fitness, group dynamics, swimming, decision-making, nutrition and social/emotional learning in both classroom and active settings. Beginning with the Class of 2022, Freshman and Sophomore Wellness are a part of the grade point average and is worth 1/2 credit per semester.

Junior/Senior Level: This level continues focus on fitness concepts with an emphasis on overall wellness. Students will develop, apply and practice concepts to improve fitness levels. Students have a choice of the following year long courses that will enhance individual wellness: Strength and Conditioning, Adventure Education, Yoga, Stay Fit for Life, Dance, Advanced Basketball, Advanced Soccer, and Aquatics.
Science

Freshman

- S131 Biology 1 Unit
- S137 Biology 1 Unit

Sophomore

- S221 Physical Science 1 Unit
- S233 Physical Science 1 Unit
- S234 Earth Science 1 Unit
- S332 Chemistry 1 Unit

Junior

- S233 Physical Science 1 Unit
- S234 Earth Science 1 Unit
- S332 Chemistry 1 Unit
- S432 Physics 1 Unit
- S437 Anatomy & Physiology 1 Unit
- S458 Advanced Chemistry 1/2 Unit

Senior

- S332 Chemistry 1 Unit
- S347 Biology 2 1 Unit
- S432 Physics 1 Unit
- S437 Anatomy & Physiology 1 Unit
- S458 Advanced Chemistry 1/2 Unit

Additional elective upper-level courses. Please check prerequisites.

- S333 Chemistry of Foods 1 Unit
- S334 Astronomy 1/2 Unit
- S334 Astronomy II 1/2 Unit
- S338 Biology 1 Unit
- S338 Chemistry 1 Unit
- S339 AP Physics 1 & 2 1-1/2 Units
- S359 AP Physics 1 1 Unit

Solid lines are mainstream sequences; dashed lines are alternate selections usually made through recommendations.
Our mission is two-fold. We are preparing some students for further study in science and engineering. We also accept the responsibility to educate all of tomorrow’s citizens for a world that demands increasing familiarity with science and technology.

All students must complete two years of science, which shall consist of one year of biology and one year of a non-biology course. In addition, college-bound students should take chemistry and physics. Students are advised not to specialize in a particular science discipline until they have taken basic courses in several of the major fields.

S131 Biology  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Placement test and junior high teacher recommendation
This course is designed for student learning through the investigative approach. Areas studied in this laboratory course include the unifying concepts of the cell; the organism and its relationship to its environment; and reproduction, growth, and development of humans in their environment. (NCAA Core Course)

S137 Biology  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Placement test and junior high teacher recommendation
The investigative approach is used in this laboratory course. The unified cellular approach to biology has the following major themes: science as investigation and inquiry; the relationship of structure and function; diversity of type and unity of pattern; genetic continuity; and the relationship of organism and environment. (NCAA Core Course)

S138 Biology  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Placement test and junior high teacher recommendation
This is an accelerated course with content similar to S137 Biology; however, areas of study are more thoroughly investigated. A greater emphasis is placed on student-directed laboratory activities. The use of critical thinking and problem-solving skills is stressed. (NCAA Core Course)

S170 General Science  LEVEL: 1,2,3,4
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
Basic divisions of science are covered including the fundamentals of electricity, weather, earth structure and dynamics, astronomy, chemistry, biology, plant science, and geography. Improving organizational skills and reading comprehension also are course goals.

S200 Physical Science  LEVEL: 1,2
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
Students learn about the basic divisions of science including the fundamentals of geology, ecology, life processes, astronomy, weather, and electricity.

S221 Physical Science  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: S131 Biology
This course is designed for student study of the principles of measurement, kinetics, mechanics, optics, electricity, magnetism, and chemistry. Classwork emphasizes the learning of science through laboratory experiences. (NCAA Core Course)

S233 Physical Science  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: S137 Biology or department recommendation
This introductory laboratory course combines the study of physics and chemistry, focusing on theory as well as many practical aspects of both sciences. Topics may include heat, energy, mechanics, motion, waves, sound, classification of matter, chemical formulas, and chemical reactions. (NCAA Core Course)

S234 Earth Science  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: S137 Biology or department recommendation
Lessons in this laboratory course are designed to survey earth processes. Topics studied include the changing earth, earth materials, earth motions, energy flow, meteorology, oceans, climatic patterns, mountain formation, the earth’s history, and astronomy. (NCAA Core Course)

S270 Health Science  LEVEL: 2
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
This course is designed to explore our physical, psychological, and emotional needs. Emphasis is given to learning activities which stress the development of healthy lifestyles that will enable students to achieve their full potential as human beings.
S300 Science/Health  LEVEL: 1,2
One year  One unit
PREREQUISITE: Placement through staff conference recommendation
Students learn the basics of good health and how to assume increased responsibility for their own health. Units of study include birth and early development, psychological systems, disease prevention, environmental health, family living, mental health, and responsible human relations.

S332 Chemistry  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: Completion of one year of a science class and concurrent enrollment or completion of M248, M308 or M317, or department recommendation
Standard topics of the mole concept, periodicity, chemical energy, reaction rates, acids, and bases are introduced. The application of the concepts of chemistry to societal needs and problems is a very important aspect of the course. Heavy emphasis is placed on laboratory work. (NCAA Core Course)

S333 Chemistry of Foods  LEVEL: 3,4
One unit (double class)
PREREQUISITE: 2 years of Science, and 1 year of Foods (H266 or H267), concurrent enrollment in H333 or department recommendation
Chemistry of Foods provides students the opportunity to participate in food preparation while learning the scientific basis of the chemical and biological processes involved in the culinary arts. Students completing this course will attain Food Safety Certification status by building on and applying to the concepts of food preparation and bacteriology. This course will provide guided practice and certification for the student who is choosing the profession while providing an overview of the restaurant industry for the student who is still expanding their horizons. Students will apply what they learn through participation in an in-house restaurant/catering component. The class meets two consecutive periods and is team taught by teachers from the Family and Consumer Sciences and Science departments. Students enrolled in the course will have a common lunch period to allow for flexibility on production days. (NCAA Core Course)

S334 Astronomy  LEVEL: 3,4
One-half year  One-half unit
PREREQUISITE: “C” or higher in S233 Physical Science or S234 Earth Science
Astronomy presents a study of both the solar and stellar systems. Topics studied include examination of the properties of the planets, moon, sun, comets, meteors, stars, and galaxies. Theories on the origin of the universe and development of the field of astronomy are also examined. (NCAA Core Course)

S335 Geology  LEVEL: 3,4
One-half year  One-half unit
PREREQUISITE: “C” or higher in S234 Earth Science
In this course, students build on knowledge learned in S234 Earth Science. They learn to analyze a specific landscape area, looking for both constructive and destructive forces which have shaped the land. Students will reconstruct a geographical history of an area. (NCAA Core Course)

S336 Environmental Studies  LEVEL: 3,4
One-half year  One-half unit
PREREQUISITE: S137 Biology or S138 Biology
This course explores environmental issues with a global perspective. Individual continents are studied to see the conflicts created when man manipulates natural cycles and processes. Examples of some topics covered in this course include: pollution, global warming, endangered species, overpopulation, land usage, and conservation. The course also educates students on environmental conservation projects being used within their own communities. (NCAA Core Course)

S338 Accelerated Chemistry  LEVEL: 2,3,4
One year  One unit
PREREQUISITE: Completion of one year of a science class and concurrent enrollment or completion of M308 or M328 or department recommendation
This is an accelerated course with topics similar to S332 Chemistry, but covered in more depth with greater emphasis on mathematical concepts and their application to these topics. Laboratory work is emphasized. (NCAA Core Course)

S344 Astronomy 2  LEVEL: 3,4
One-half year  One-half unit
PREREQUISITE: “C” or higher in S233 Physical Science or S234 Earth Science. C or higher in S334 Astronomy 1
In this course, students build on knowledge learned in S334 Astronomy. Topics studied include examination of the properties of the planets, moon, sun, comets, meteors, stars, and galaxies. (NCAA Core Course)

S347/S64702 Biology 2  LEVEL: 3,4
One year  One unit
PREREQUISITE: “C” or higher in S137 Biology or S138 Biology
The course allows students to pursue a second year of biology. Major areas of study are cells and systems, ecological relationships, genetics, and biotechnology. The course utilizes a laboratory approach and is taught at a level consistent with
student abilities and course prerequisites. This is a course for college-bound students, but it is not an accelerated course.

(NCAA Core Course)

S64702: Harper College B10101 Biology Survey, 3 credit hours

S352 Forensic Science LEVEL: 3,4
One semester  One-half unit
PREREQUISITE: S432 or taking S432 concurrently with department recommendation
Forensic Science is a one semester course designed for students who have an interest in applying their background of science to the field of forensics. This lab-based course will focus on topics such as: crime scene photography, DNA, ballistics, blood splatter, and fingerprint analysis. (NCAA Core Course)

S353 Applied Science LEVEL: 3,4
One year  One unit
PREREQUISITE: S221 or department recommendation
Applied Science is a topics-based science course exploring the connections between real world issues and classroom science. The emphasis will be on applying the processes of science, interpreting data and research and advancing scientific literacy to understand the role of science in our everyday lives. Forensics, roller coaster design, and sports equipment design are representative topics. Career connections are highlighted.

S359 Advanced Placement Physics 1 LEVEL: 3,4
One year  One unit
PREREQUISITE: Completion of a 300-level science class and concurrent enrollment or completion of M348, M408, M438 or M417 with department recommendation; or department recommendation
AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and force, DC circuits, and mechanical waves and sound. Students are encouraged to take the AP Physics 1 exam in May. The class meets for one period per day and cannot be taken pass/fail. (NCAA Core Course)

S369 Advanced Placement Physics 1 & 2 LEVEL: 3,4
One year  One and one-half units
PREREQUISITE: Completion of a 300-level science class and concurrent enrollment or completion of M348, M408, M438 or M417 with department recommendation; or department recommendation
Advanced Placement Physics allows students to pursue college-level study while in high school. The course places emphasis upon the principal topics covered in introductory college physics courses. The course covers mechanics; heat, fluids, kinetic theory and thermodynamics; electricity and magnetism; waves and optics; and atomic and nuclear physics. Students are encouraged to take both the Advanced Placement Physics 1 and Physics 2 exams in May. The class meets 1½ periods per day and cannot be taken pass/fail. (NCAA Core Course)

S429 Advanced Placement Environmental Science LEVEL: 3,4
One year  One unit
PREREQUISITE: Completion of S137 or S138 Biology and S338 Chemistry or S332 Chemistry with department recommendation; or department recommendation
Advanced Placement Environmental Science allows students to pursue college-level study while still in high school. The course places emphasis upon the principal topics covered in introductory college environmental science courses. The topics covered include earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution and global change. Students are encouraged to take the Advanced Placement exam in May. (NCAA Core Course)

S432 Physics LEVEL: 3,4
One year  One unit
PREREQUISITE: S332 or S338 Chemistry
This course emphasizes the following major topics: concepts of time, space and matter; motion and forces; optics and light; electricity and magnetism; and atomic physics. A heavy emphasis is placed on laboratory work. (NCAA Core Course)

S437/S63702 Anatomy and Physiology LEVEL: 3,4
One year  One unit
PREREQUISITE: “C” or higher in S137 or S138 Biology and S338 Chemistry
This course focuses on the human body and its complexity. While this class will benefit students who are interested in the healthcare field, all students will have the opportunity to take part in exposure to anatomy and physiology. This will benefit careers such as biotechnology, pharmaceutical, and psychology. This class supports the STEM initiative which encourages high school students to venture into science and engineering professions. This course would earn one credit in science. (NCAA Core Course) S63702: Harper College, B10135 Intro to Anatomy and Physiology, 4 credit hours

S439 Advanced Placement Placement Chemistry LEVEL: 3,4
One year  One and one-half units
PREREQUISITE: Completion of S338 or S332 Chemistry with department recommendation, and concurrent enrollment or completion of M348, M408, M438 or M417; or department recommendation
Advanced Placement Chemistry allows students to pursue college-level study while in high school. The course places emphasis upon the principal topics covered in introductory college chemistry courses. The topics covered include atomic theory, chemical bonding, equilibrium, gas laws, acid-base reactions, stoichiometry, kinetics, thermodynamics, and organic chemistry. A heavy emphasis is placed on laboratory work. Students are encouraged to take the Advanced Placement exam in
May. The class meets 1½ periods per day and cannot be taken pass/fail. (NCAA Core Course)

**S449 Advanced Placement Biology**  
**LEVEL: 3,4**  
One year  
One and one-half units  
**PREREQUISITE:** Completion of S137 or S138 Biology, and S338 or S332 Chemistry with department recommendation; or department recommendation  
Advanced Placement Biology allows students to pursue college-level study while still in high school. The Advanced Placement course places emphasis upon the principal topics covered in college introductory biology courses. The course is divided into three major areas: molecules and cells, genetics and evolution, and organisms and populations. Students are encouraged to take the Advanced Placement exam in May. The class meets for 1½ periods per day and cannot be taken pass/fail. (NCAA Core Course)

**S457 Advanced Topics in Science**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** “B” or higher in S332 Chemistry or S338 Chemistry and S432 Physics, S359 AP Physics 1 or S369 AP Physics 1 & 2 or taking S432, S359 or S369 concurrently or department recommendation  
Advanced Topics in Science is a course designed to study the connections between the sciences. Students will learn specific concepts through the study of current issues. Sports technology, genetics, neurology, and chaos theory are representative units of study. Emphasis will be placed on experimental, research, and technology skills. (NCAA Core Course)

**S458 Advanced Chemistry**  
**LEVEL: 4**  
One-half year  
One-half unit  
**PREREQUISITE:** “B” or higher in S332 Chemistry or S338 Chemistry and S432 Physics or S369 Advanced Placement Physics; or department recommendation  
Basic chemistry topics are reviewed and explored in greater depth than in S332 Chemistry and S338 Chemistry. Heavy emphasis is on laboratory work. (NCAA Core Course)

**S468 Advanced Physics**  
**LEVEL: 4**  
One-half year  
One-half unit  
**PREREQUISITE:** “B” or higher in S332 Chemistry or S338 Chemistry and S432 Physics or S369 Advanced Placement Physics; or department recommendation  
Basic physics topics are reviewed and explored in greater depth than in S432 Physics and S369 AP Physics. A heavy emphasis is placed on laboratory work. (NCAA Core Course)

**S469 Advanced Placement Physics Calculus C**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** Completion of S369 AP Physics 1 & 2 or S359 AP Physics 1; student also must have completed or be concurrently enrolled in calculus course; or with department recommendation  
Advanced Placement Physics C allows students to pursue calculus-based college-level study while in high school. The course places emphasis upon the principal topics not covered in S432 or S369. This course also looks at the material covered in the students’ introductory-level physics and uses Calculus to solve problems. The course emphasizes the following components: mechanics and electricity and magnetism. Students will study Newtonian Mechanics, Conservation Laws, including Energy and momentum, circular and angular motion, and a broad spectrum of Electricity and Magnetism topics. Students are encouraged to take both of the Advanced Placement Physics C exams in May, Mechanics and E and M. The class meets 1 period per day and cannot be taken pass/fail. (NCAA Core Course)

**S478 Applications in Advanced Chemistry**  
**LEVEL: 4**  
One-half year  
One-half unit  
**PREREQUISITE:** “B” or higher in S332 Chemistry or S338 Accelerated Chemistry and S432 Physics or S369 Advanced Placement Physics; or department recommendation  
This lab-intensive course focuses on forensic chemistry, nanotechnology, and materials engineering with an emphasis on "real world" applications. Experiences from the course will include: problem solving within a crime scene, designing/testing prototypes of potential consumer products, fabrications of materials on the microscale, and investigating the ethical implications of developing technologies. This course can be taken independent of S458 Advanced Chemistry. (NCAA Core Course)
### Social Studies

#### Freshman
- **G143** World Geography 1 Unit
- **G146** World History 1 Unit
- **G161** Global Studies 1 Unit
- **G339** AP World History 1 Unit
- **G349** AP Human Geography 1 Unit

#### Sophomore
- **G349** AP Human Geography 1 Unit
- **G359** AP European History 1 Unit
- **G216** Multi-Cultural Perspective 1/2 Unit
- **G236** Women’s Studies 1/2 Unit
- **G262** World Affairs 1/2 Unit

#### Junior
- **G469-G479** AP Macroecon. Am. Gov’t 1 Unit
- **G369** AP U.S. History 1 Unit
- **G342** U.S. History 1 Unit
- **G336** American Studies 1 Unit
- **G343** Psychology 1 1/2 Unit
- **G353** Psychology 2 1/2 Unit
- **G365** Law and the Individual 1/2 Unit
- **G316** Intro to Criminal Justice 1/2 Unit
- **G341** U.S. History 1 Unit
- **G331** American Studies 1 Unit
- **G379** AP Psychology 1 Unit

#### Senior
- **G359** AP European History 1 Unit
- **G459** AP Microeconomics 1/2 Unit
- **G469-G479** AP Macroecon. Am. Gov’t 1 Unit
- **G442** Social Science Survey 1 Unit
- **G462/G472** Intro to Gov’t/Econ. 1 Unit
- **G365** Law and the Individual 1/2 Unit
- **G316** Intro to Criminal Justice 1/2 Unit
- **G341** U.S. History 1 Unit
- **G441** Social Science Survey 1 Unit
- **G379** AP Psychology 1 Unit

Solid lines are mainstream sequences; dashed lines are alternate selections usually made through recommendation.
The goals of the Social Studies Department in High School District 211 are:

1. To give students an understanding of our institutions and social environment so that they may adapt to rapidly changing conditions;
2. To prepare students for their opportunities and responsibilities in society by fostering an appreciation of contemporary problems through discussion of current issues and their historical background;
3. To foster attitudes of critical and impartial judgment, tolerance, and open-mindedness;
4. To develop skill in obtaining information pertinent to social issues, in organizing materials, and in communicating ideas.
5. To develop active citizens in our communities.

A major in social studies is recommended for a student who is preparing for law, government service, diplomatic service, social work, teaching of social studies, journalism, psychology, international trade, or business. United States History is a state-required course taken in the junior year. A second unit of Social Studies is required for graduation. It can be Social Science Survey, Introduction to Government/Economics, or Advanced Placement Macroeconomics/Advanced Placement American Government and Politics. A 20-hour community service experience is included in all regular education Social Studies senior-level courses.

**G143 World Geography**  LEVEL: 1,2,3,4
One year  One unit
World Geography is designed to combine a survey of geographic principles pertaining to the physical, economic, and political aspects of the world with an application of these principles to the major continents. (NCAA Core Course)

**G146 World History**  LEVEL: 1,2,3,4
One year  One unit
World History is a survey of western and non-western civilizations. Students will trace the development of nations and learn of the political, economic, intellectual, and social advances of humanity. The course emphasizes the learning of skills that will be helpful in all areas of study. (NCAA Core Course)

**G161 Global Studies**  LEVEL: 1,2
One year  One unit
This course provides a unique integration of culture, history, economics, government, and geography as its framework. The goal is to have the students critically think about making connections, developing solutions, and understanding cultures. In each of the units, the students will learn active strategies for learning in the areas of reading; note-taking; analyzing maps, charts, and graphs; discussion and listening skills; writing and technology skills. (NCAA Core Course)

**G216 Multicultural Perspectives**  LEVEL: 2,3,4
One-half year  One-half unit
Multicultural Perspectives is designed to increase cultural awareness and to prepare students to thrive in a diverse society. Through the examination of prejudice, self-esteem, cultural similarities and differences, students will be more prepared to function constructively in multicultural settings. (NCAA Core Course)

**G236 Women’s Studies**  LEVEL: 2,3,4
One-half year  One-half unit
This course will enhance understanding of the topics and issues of women in contemporary society. It will provide students with a perspective on the role of women in American History, the labor force, education, politics and the law, the family, and research in health care. Various approaches to activism on behalf of women will be investigated so that students will be aware of many perspectives and solutions to challenges facing women in today’s society. (NCAA Core Course)

**G262 World Affairs**  LEVEL: 2,3,4
One-half year  One-half unit
World Affairs is designed to build upon the concepts and skills learned in Global Studies, World Geography, or World History. The course will promote a better understanding of issues that challenge the modern world and investigate possible solutions to issues. These topics include health care, the environment, human rights, terrorism, global politics, and economic globalization. (NCAA Core Course)

**G300 United States History**  LEVEL: 3,4
One year  One unit
**PREREQUISITE:** Placement through staff conference recommendation
In this course, students gain an understanding of our country’s history. Federal, state, and local government interrelationships and their impact on daily life are examined. In addition, the role and responsibilities of U.S. citizenship are stressed.
G331 American Studies — History
LEVEL: 3
One year
One unit
PREREQUISITE: E201 English
This course combines the study of United States History and American Literature and fulfills the requirements for the third-year United States History. This class is team taught by teachers from the Social Studies Department and English Department. Students should be enrolled concurrently in E331 and G331. (NCAA Core Course)

G336 American Studies — History
LEVEL: 3
One year
One unit
PREREQUISITE: E202 English 2 or E208 English 2
American Studies offers the student an opportunity to examine the question, “What is an American?” By studying America’s history, literature, music, art, and architecture, the student can discover what makes him or her special as an American. This course combines a chronological or thematic study of United States history and American literature and fulfills the requirements for junior English and United States History. Students must be enrolled concurrently in E336 and G336. (NCAA Core Course)

G339 Advanced Placement World History
LEVEL: 1,2,3,4
One half year
One half unit
PREREQUISITE: Department recommendation
This course presents a global history from the earliest times to the present. Balanced coverage is offered of Asia, Africa, the Americas, and Europe. Broad themes are explored such as trade, migrations, technology, the spread of religions, disease, war, political organization, gender, and social structure. The course explains how the world has generally become more interdependent. (NCAA Core Course)

G341 United States History
LEVEL: 3
One year
One unit
This course emphasizes objectives and study projects covering the history of our nation from the American Revolution to the present. (NCAA Core Course)

G342 United States History
LEVEL: 3
One year
One unit
The survey course covers the history of our nation from the American Revolution to the present day. (NCAA Core Course)

G343 Psychology 1
LEVEL: 3,4
One half year
One half unit
Psychology is the scientific study of human and animal behavior and mental processes. Not only will students learn how to scientifically process what they hear in the media, but they will also have a deeper appreciation for how people think, feel, and act. Topics include the history of psychology, learning and memory, the brain, sensation and perception, personality, consciousness-sleep, dreams, hypnosis, human development, and methods of research. (NCAA Core Course)

G349 Advanced Placement Human Geography
LEVEL: 1,2,3,4
One year
One unit
LEVEL 1: At Palatine and Schaumburg High Schools
Human Geography is designed to further enhance the understanding of issues and concerns that exist between human beings and their environment. The course provides an additional framework of perspectives on multiculturalism, ethnic-racial-religious conflict, the impact of population on resources, global economics, land-use and the politics of a global community. (NCAA Core Course)

G353 Psychology 2
LEVEL: 3,4
One half year
One half unit
PREREQUISITE: G343 Psychology 1 (A,B,C)
This course is similar in design to G343 Psychology 1, but offers students additional topics to explore. What makes an individual engage in an ongoing pattern of behaviors, thoughts, and feelings that may be deviant, stressful, or dysfunctional? Psychology 2 explores this question by focusing on social psychology (conformity, attraction, and obedience), stress, drugs, abnormal psychology, treatment, and therapy. (NCAA Core Course)

G359 Advanced Placement European History
LEVEL: 2,3,4
One year
One unit
PREREQUISITE: Department recommendation
This elective course is an introductory-level college humanities course that prepares students for the Advanced Placement European History Test. The course examines the cultural, economic, social and political history of Europe from 1450 to the present. The curriculum also is designed to further develop the student’s inquiry and analytical skills through reading, writing, discussions, and a variety of class activities. The mastery of these skills provide an excellent foundation for college and will enable students to explore other areas of interest throughout their lives. (NCAA Core Course)

G365 Law and the Individual
LEVEL: 2,3,4
One half year
One half unit
Students in this class learn about the rights and obligations of citizenship, the historical development of our system of law, our court structure and procedure,
and substantive criminal law. A primary purpose of class exercises is for each student to develop the ability to think critically by recognizing the value conflicts present in the law. (NCAA Core Course)

G369 Advanced Placement United States History  LEVEL: 2,3  
One year  
One unit  
PREREQUISITE: E208 English 2 or department recommendation  
This is a survey course offered for students of above-average ability and interest. The material used and teaching style employed are at the college level. Students are encouraged to take the Advanced Placement Test. (NCAA Core Course)

G370 United States History  LEVEL: 3  
One year  
One unit  
PREREQUISITE: Placement through staff conference recommendation  
This is a general survey course in United States History. It combines an overview of colonial development, westward expansion, urban development, and foreign affairs. Attention also is given to building skills in geography.

G379 Advanced Placement Psychology  LEVEL: 3,4  
One year  
One unit  
PREREQUISITE: Previous successful AP experience, Accelerated English enrollment or department recommendation  
Designed for students with above average ability and interest, Advanced Placement Psychology will offer students an in-depth look at the scientific study of human behavior and mental processes. The main goal will be to prepare students for the optional AP exam in May. Through this course, students will gain a deeper appreciation for how people think, feel, and act as they are exposed to empirically supported psychological facts and research findings. Topics include social psychology, consciousness, perception, the brain, motivation and emotion, learning and memory, abnormal psychology and treatment, human development, stress, and drugs. (NCAA Core Course)

G400 Social Science Survey  LEVEL 3,4  
One year  
One unit  
PREREQUISITE: Placement through staff conference recommendation  
Students examine issues that affect their daily lives. Topics covered include family, peer groups, dating, marriage, prejudice, law, and personal decision-making. In addition, students gain an understanding of the responsibilities demanded by the school, the community, and state and federal governments.

G441 Social Science Survey  LEVEL: 4  
One year  
One unit  
The objectives and content of this course focus on the study of four major social disciplines: anthropology, economics, political science, and sociology. (NCAA Core Course)

G442 Social Science Survey  LEVEL: 4  
One year  
One unit  
Social Science Survey is designed to introduce students to the methodology of social studies and to major principles and concepts of the following social studies disciplines: anthropology, economics, political science, and sociology. (NCAA Core Course)

G459 Advanced Placement Microeconomics  LEVELS: 3,4  
One-half year  
One-half unit  
The purpose of the AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. Students will be expected, but not required, to take the College Board Advanced Placement test in Microeconomics in the spring. This one semester course does not meet social studies graduation requirements, but is an elective option. (NCAA Core Course)

G462 Introduction to Economics  LEVEL: 4  
One-half year  
One-half unit  
This course is one semester in length, and must be taken with G472 Introduction to Government to meet the senior social studies graduation requirement. The goal of the course is to develop the knowledge and skills needed to understand both the American market economy and the larger global economic system. Topics will include basic concepts of our market economy, the role of the federal government, the business cycle, a comparative study of capitalism and socialism, international trade, and a number of contemporary economic issues ranging from
poverty to the deficit. Throughout the course critical thinking skills will be emphasized. (NCAA Core Course)

**G469 Advanced Placement Macroeconomics**  
**LEVEL:** 3, 4  
One-half year  
One-half unit  
**PREREQUISITE:** G369 United States History (A, B) or department recommendation  
This course is one semester in length, offered to students of above-average ability. Students would be expected, but not required, to take the College Board Advanced Placement test in Macroeconomics in the spring. This course gives students a thorough understanding of the basic principles of a market economy. Students learn about national income and price determination and become familiar with economic performance measures, economic growth, and international economics. (NCAA Core Course) This course meets the graduation requirement.

**G470 Social Science Survey**  
**LEVEL:** 4  
One year  
One unit  
**PREREQUISITE:** Placement through staff conference recommendation  
This course includes units that examine the various social studies disciplines: anthropology, sociology, political science, and economics. An understanding of our American culture and its political, economic, and social systems is developed. Other cultures and their value systems also are explored. Communication and critical thinking skills are emphasized.

**G472 Introduction to Government**  
**LEVEL:** 4  
One-half year  
One-half unit  
This course is one semester in length, and must be taken with G462 Economics to meet the senior social studies graduation requirement. The goal of the course is to develop the knowledge, skills, and ideals needed to understand government. Emphasis is placed on political participation and individual responsibilities. The promise of America's future and interdependence of our global community heighten the demand for students to become aware and involved with the political process. (NCAA Core Course)

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> Success is not final, failure is not fatal: it is the courage to continue that counts.  
> – Winston S. Churchill
## World Language

### Freshman
- **L262**
  - French 2 for Freshmen
  - 1 Unit
- **L162**
  - French 1
  - 1 Unit
- **L163**
  - German 1
  - 1 Unit
- **L266**
  - Spanish 2 for Freshmen
  - 1 Unit
- **L166**
  - Spanish 1
  - 1 Unit
- **L276**
  - Spanish for Native Speakers/ Dual Language Students
  - 1 Unit
- **L152**
  - Chinese 1
  - 1 Unit

### Sophomore
- **L362**
  - French 3
  - 1 Unit
- **L262**
  - French 2
  - 1 Unit
- **L263**
  - German 2
  - 1 Unit
- **L366**
  - Spanish 3
  - 1 Unit
- **L266**
  - Spanish 2
  - 1 Unit
- **L376**
  - Spanish for Native Speakers/ Dual Language Students
  - 1 Unit
- **L252**
  - Chinese 2
  - 1 Unit

### Junior
- **L462**
  - French 4
  - 1 Unit
- **L362**
  - French 3
  - 1 Unit
- **L363**
  - German 3
  - 1 Unit
- **L366**
  - Spanish 4
  - 1 Unit
- **L366**
  - Spanish 3
  - 1 Unit
- **L476**
  - Advanced Topics
  - 1 Unit
- **L352**
  - Chinese 3
  - 1 Unit

### Senior
- **L559**
  - AP French Language & Culture
  - 1 Unit
- **L462**
  - French 4
  - 1 Unit
- **L569**
  - AP German Language & Culture
  - 1 Unit
- **L579**
  - AP Spanish Language & Culture
  - 1 Unit
- **L466**
  - Spanish 4
  - 1 Unit
- **L579**
  - AP Spanish Language & Culture
  - 1 Unit
- **L589**
  - AP Spanish Literature & Culture
  - 1 Unit
- **L549**
  - AP Chinese Language & Culture
  - 1 Unit
High School District 211 offers four-year programs in Spanish, French, German, and Chinese. The study of one language for four years is highly recommended for reaching an intermediate to advanced level of proficiency as well as satisfying many college requirements.

Many colleges require or recommend the study of a world language for entrance and/or graduation. Colleges may grant credit for successfully passing the Advanced Placement or college entrance exams, receiving the State Seal of Biliteracy or meeting requirements in a Dual Credit course. In addition to preparing for college, the study of a world language has become important to career readiness.

Students who fail first semester are not eligible to continue in that language course second semester.

**L166 Spanish 1**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** Incoming Freshmen—satisfactory entrance test score  
This is a beginning level course for those students with little to no experience learning Spanish. An emphasis is placed on developing communicative skills in the target language using authentic resources. Students will learn basic vocabulary and grammatical concepts in order to begin building proficiency in the language. A variety of cultural topics will be introduced throughout the year. (NCAA Core Course)

**L176 Spanish for Native Speakers 1**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
*(Palatine High School Only)*  
**PREREQUISITE:** Placement through student services and ESL department recommendation  
This course is designed to meet the needs of those who already speak and comprehend Spanish. It provides students with the opportunity to develop skills in reading, writing, and conventional grammar.

**L266 Spanish 2**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** L166 (A,B,C,D) Incoming Freshmen—two years of junior high Spanish and/or recommendation of the junior high school teacher  
This course reinforces concepts learned in level 1 and is designed to further develop a student’s communicative skills in the target language. The use of authentic resources, thematic units, and an analysis of daily life and current events will build on a student’s level of proficiency. Cultural topics will be included throughout the year in order to broaden understanding of the Spanish speaking communities. (NCAA Core Course)

**L276 Spanish for Native Speakers 2/ Dual Language Students**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** Native speaker/Dual language student; recommendation of instructor  
This course is designed to meet the needs of those who already speak and comprehend Spanish. It provides students with the opportunity to develop, or improve, skills in reading, writing, and conventional grammar. Topics in Hispanic life are covered as a vehicle for expanding vocabulary and developing basic rhetorical skills. (NCAA Core Course)

**L366 Spanish 3**  
**LEVEL: 2,3,4**  
One year  
One unit  
**PREREQUISITE:** L266 Spanish 2 (A,B,C) or department approval  
This intermediate level course will build on previously learned material as well as introduce more advanced grammatical concepts. Thematic units are designed to broaden vocabulary and cultural understanding while further strengthening a student’s level of proficiency. Target language use is a key component of this level. (NCAA Core Course)

**L376 Spanish for Native Speakers 3/Dual Language Students with Proficiency**  
**LEVEL: 1,2,3,4**  
One year  
One unit  
**PREREQUISITE:** L276 Native speaker/Dual language student; recommendation of instructor  
This advanced course is designed to meet the needs of those who already speak and comprehend Spanish. It provides students with the opportunity to develop, or improve, skills in reading, writing, and conventional grammar. Topics in Hispanic life are covered as a vehicle for expanding vocabulary and developing basic rhetorical skills. (NCAA Core Course)

**L466 Spanish 4**  
**LEVEL: 3,4**  
One year  
One unit  
**PREREQUISITE:** L366 Spanish 3 (A,B,C) or department approval  
This upper level course, taught exclusively in the target language, focuses heavily on the refinement of a student’s composition and communicative skills as well as a more in-depth study of literature, history, geography, and culture. Attention is given to complexity, accuracy and fluency in order to achieve an intermediate high level of proficiency. Preparation for the AP language course is incorporated throughout the year. (NCAA Core Course)

**L476 Advanced Topics in Spanish**  
**LEVEL: 3-4**  
One year  
One unit  
**PREREQUISITE:** L376, L466 (A,B,C) or department approval  
This is an upper level course designed to provide conversational practice beyond the intermediate level. The
focus of this class is to strengthen advanced grammatical concepts, broaden vocabulary, and increase overall student proficiency in all communicative skills. The study of Spanish speaking cultures and current events is also included.

Preparation for the AP course language is incorporated throughout the year. (NCAA Core Course) L67602: Harper College Course SPA205, Spanish Intensive Oral Practice, 3 college credit hours.

L579 Advanced Placement Spanish Language and Culture LEVEL: 4
One year One unit
PREREQUISITE: L466 Spanish or L476 (A,B,C) or department approval Advanced Placement Spanish Language and Culture is an advanced level course that places an emphasis on a student's communicative competence in reading, listening, writing and speaking. This course is for highly motivated students willing to do college level work and is designed to prepare students for the Advanced Placement Spanish Language and Culture Exam. Attention is given to complexity, accuracy, and fluency in order to achieve an advanced level of proficiency. (NCAA Core Course)

L589 Advanced Placement Spanish Literature and Culture LEVEL: 3, 4
One year One unit
PREREQUISITE: L579 AP Spanish Language (A, B) or score of 3 or higher on the AP Spanish Language Exam or department recommendation. Advanced Placement Spanish Literature and Culture is an advanced level course conducted exclusively in the target language which focuses primarily on college-level Spanish literature. The course introduces students to the formal study of literature using a variety of pieces from Spain, Latin America and U.S. Hispanic literature. Students will demonstrate their proficiency in Spanish across the three modes of communication (interpersonal, interpretive, presentational) becoming critical readers and analytical writers. Although not required, students are encouraged to take the Advanced Placement Spanish Literature and Culture exam at the conclusion of the course. (NCAA Core Course)

L162 French 1 LEVEL: 1,2,3,4
One year One unit
PREREQUISITE: Incoming Freshmen-satisfactory entrance test score This is a beginning level course for those students with little to no experience learning French. And emphasis is placed on developing communicative skills in the target language using authentic resources. Students will learn basic vocabulary and grammatical concepts in order to begin building proficiency in the language. A variety of cultural topics will be introduced throughout the year. (NCAA Core Course)

L262 French 2 LEVEL: 1,2,3,4
One year One unit
PREREQUISITE: L162 French 1 (A,B,C,D) Incoming Freshmen-two years of high school French and/or recommendation of the junior high school teacher.) This course reinforces concepts learned in level 1 and is designed to further develop a student's communicative skills in the target language. The use of authentic resources, thematic units, and an analysis of daily life and current events will build on a student's level of proficiency. Cultural topics will be included throughout the year in order to broaden understanding of the French speaking communities. (NCAA Core Course)

L362 French 3 LEVEL: 2,3,4
One year One unit
PREREQUISITE: L262 French 2 (A,B,C) or department approval This intermediate level course will build on previously learned materials as well as introduce more advanced grammatical concepts. Thematic units are designed to broaden vocabulary and cultural understanding while further strengthening a student's level of proficiency. Target language use is a key component of this level. (NCAA Core Course)

L462 French 4 LEVEL: 3,4
One year One unit
PREREQUISITE: L362 French 3 (A,B,C) or department approval This upper level course, taught exclusively in the target language, focuses heavily on the refinement of a student's composition and communicative skills as well as a more in-depth study of literature, history, geography and culture. Attention is given to complexity, accuracy, and fluency in order to achieve an intermediate high level of proficiency. Preparation for the AP language course is incorporated throughout the year. (NCAA Core Course) L66202: Harper College Course FRN202, Intermediate French, 4 college credit hours.

L559 Advanced Placement French Language and Culture LEVEL: 4
One year One unit
PREREQUISITE: L462 French 4 (A,B,C) or department approval Advanced Placement French Language and Culture is an advanced level course that places an emphasis on a student's communicative competence in reading, listening, writing and speaking. This course is for highly motivated students willing to do college level work and is designed to prepare students for the Advanced Placement French Language and Culture Exam. Attention is given to complexity, accuracy, and fluency in order to achieve an advanced level of proficiency. (NCAA Core Course)

L163 German 1 LEVEL: 1,2,3,4
One year One unit
PREREQUISITE: Incoming Freshmen-satisfactory entrance test score This is a beginning level course for those students with little to no experience learning German. An emphasis is placed on developing communicative skills in the target language using authentic resources. Students will learn basic vocabulary and grammatical concepts in order to begin building

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“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.” – Margaret Mead
proficiency in the language. A variety of cultural topics will
be introduced throughout the year. (NCAA Core Course)

L263 German 2 LEVEL: 2,3,4
One year One unit
PREREQUISITE: L163 German 1 (A,B,C,D) or department approval
This course reinforces concepts learned in level 1 and is
designed to further develop a student's communicative
skills in the target language. The use of authentic resources,
thematic units, and an analysis of daily life and current events
will build on a student's level of proficiency. Cultural topics
will be included throughout the year in order to broaden
understanding of the German speaking communities.
(NCAA Core Course)

L363 German 3 LEVEL: 2,3,4
One year One unit
PREREQUISITE: L263 German 2 (A,B,C) or department approval
This intermediate level course will build on previously
learned material as well as introduce more advanced
grammatical concepts. Thematic units are designed to
broaden vocabulary and cultural understanding while
further strengthening a student's level of proficiency. Target
language use is a key component of this level. (NCAA Core Course)

L569 Advanced Placement German Language and Culture LEVEL: 4
One year One unit
PREREQUISITE: L363 German 3 (A,B,C) or department approval
Advanced Placement German Language and Culture is an
advanced level course that places an emphasis on a student's
communicative competence in reading, listening, writing and speaking. This course is for highly motivated students willing to do college level work and is designed to prepare students for the Advanced Placement German Language and Culture Exam. Attention is given to complexity, accuracy and fluency in order to achieve an advanced level of proficiency. (NCAA Core Course)

L152 Chinese 1 LEVEL: 1,2,3,4
One year One unit
PREREQUISITE: Incoming Freshmen-satisfactory entrance test score
This is a beginning level course for those students with little
to no experience learning Chinese. An emphasis is placed on
developing communicative skills in the target language using
authentic resources. Students will learn basic vocabulary
and grammatical concepts in order to begin building
proficiency in the language. A variety of cultural topics will
be introduced throughout the year. (NCAA Core Course)

L252 Chinese 2 LEVEL: 2,3,4
One year One unit
PREREQUISITE: L152 Chinese 1 (A,B,C,D) or department approval
This course reinforces concepts learned in level 1 and is
designed to further develop a student's communicative
skills in the target language. The use of authentic resources,
thematic units, and an analysis of daily life and current events
will build on a student's level of proficiency. Cultural topics
will be included throughout the year in order to broaden
understanding of the Chinese speaking communities. (NCAA Core Course)

L352 Chinese 3 LEVEL: 2,3,4
One year One unit
PREREQUISITE: L252 Chinese 2 (A,B,C) or department approval
This intermediate level course will build on previously
learned material as well as introduce more advanced
grammatical concepts. Thematic units are designed to
broaden vocabulary and cultural understanding while
further strengthening a student's level of proficiency. Target
language use is a key component of this level. (NCAA Core Course)

L549 Advanced Placement Chinese Language and Culture LEVEL: 4
One year One unit
PREREQUISITE: L352 Chinese 3 (A,B,C) or department approval
Advanced Placement Chinese Language and Culture is an
advanced level course that places an emphasis on a student's
communicative competence in reading, listening, writing and speaking. This course is for highly motivated students willing to do college level work and is designed to prepare students for the Advanced Placement Chinese Language and Culture Exam. Attention is given to complexity, accuracy and fluency in order to achieve an advanced level of proficiency. (NCAA Core Course)

Follow your instincts. That's where true wisdom manifests itself.
– Oprah Winfrey
Television personality and philanthropist
Non-Departmental Courses

Non-Departmental courses are those that are offered for credit and do not belong to any particular academic department within the school. These courses are taught by a variety of qualified school faculty.

**R110/R210/R310/R410/R450 Functional Academic and Life Skills**

LEVEL: 1,2,3,4

One year

PREREQUISITE: Placement through staff conference recommendation

This course is designed for students who receive special education services for intellectual disabilities with accompanying physical and/or medical challenges. The curriculum emphasizes functional academics and life skills through participation in hands-on experiences. Students have the opportunity to develop communication skills through the use of assistive technology and experiences with general education peer mentors and in-building vocational opportunities. Basic objectives and skills will be met through appropriate activities designed for each student’s level of ability.

**R151/R251/R351/R451 Life and Learning Strategies**

LEVEL: 1,2,3,4

One year

PREREQUISITE: Placement through staff conference recommendation

This course is designed for students who receive special services for autism spectrum disorders and related disabilities. Students will develop strategies to increase effective skills of self-determination. The curriculum will emphasize individualized instruction in communication and socialization strategies related to daily problem solving. Content also will include units of study to support organization and study skills to increase overall academic performance.

**R152/R252 Life Strategies**

LEVEL: 1,2

One year

PREREQUISITE: Placement through staff conference recommendation

This resource program is designed to teach students how to manage various aspects of their lives strategically. The main goal of the course is to ensure that students are able to independently analyze and successfully solve problems in social, personal, and academic situations. The curriculum includes activities and exercises in the areas of responsibility, values, problem-solving, motivation, commitment, and self-determination.

**R153/R253/R353 Learning Strategies**

LEVEL: 1,2,3

One-half unit

PREREQUISITE: Placement through staff conference recommendation

This resource program is designed to teach students how to manage various aspects of their lives strategically. The main goal of the course is to ensure that students are able to independently analyze and successfully solve problems in social, personal, and academic situations. The curriculum includes activities and exercises in the areas of responsibility, values, problem-solving, motivation, commitment, and self-determination.

**R166 Leadership and Efficacy 1**

LEVEL: 1

One unit

PREREQUISITE: Student Services Department Recommendation

The course is meant to empower student leaders and provide them the opportunity to explore their personal history, cultivate their personal leadership philosophy, develop specific “soft skills”, and utilize academic supports within a structured environment. Students are expected to maintain high standards in regards to behavior and academics as well as be a positive representative of Hoffman Estates on campus as well as off campus when participating in school events. This is a course for self-discovery and empowerment.

**R167 Strategies for Academic Success**

LEVEL: 1,2,3,4

One unit

PREREQUISITE: Student Services Department Recommendation

This course assists students in developing the academic habits and mindsets needed for success during class and after school.

**R226 Leadership for Life 1**

LEVEL: 1,2,3,4

One-half unit

This one semester elective course offers practical training in communication, group dynamics, planning and goal setting, conflict management, and self-evaluation. It is taught with an interdisciplinary approach offering the
opportunity to improve qualities of self-respect, self-management, and goal-setting that cut across issues of personal growth and management.

R236 Leadership for Life 2
LEVEL: 1,2,3,4
One-half year
PREREQUISITE: R226 Leadership for Life 1
This one semester course puts into practice the skills taught in Leadership for Life including leading with a purpose, goal setting, conflict resolution and team challenges.

R313/R61302 Health Career Exploration and Medical Terminology
LEVEL: 3,4
One year
PREREQUISITE: Successful completion of Biology and grade level reading scores
This course familiarizes students to the health care delivery system including an introduction to the organization, structure, function, and issues related to the health care environment. Emphasis is placed on the importance of effective communication skills for health care professionals, team building, professionalism, and diversity in the health care center. This class also emphasizes the origin and the basic structure of medical words, including prefixes, suffixes, word roots, combining forms, and plurals. Emphasis is on rendering a professional vocabulary required for work in the health care field. R61302: Harper College Course HSC112, Medical Terminology, 2 college credit hours.

R314/R61402 Certified Nursing Assistant
LEVEL: 4
One year
PREREQUISITE: Successful completion of R313 Health Career Exploration and Medical Terminology: Must have the ability to lift, move, and transfer patients. Recommend concurrent enrollment in S437 Anatomy and Physiology
Objectives of the course are to teach basic nursing skills that provide “hands-on” care in a safe, competent, and quality manner. Both theory and practical laboratory lessons precede actual clinical experience. As part of the class, clinical experience at local health care facilities occur on designated weekends. Students must arrange their own transportation for the weekend clinicals. Successful completion of the course gives Harper College credit as well as high school credit. In addition, students become eligible to take the Nurse Aide Competency examination and be certified by the State of Illinois as Nurse Aides. A fee is required for healthcare equipment which the student will keep after the course is completed. R61402: Harper College Course CNA101, Nursing Assistant Training, 6 college credit hours.

R332, R432 Related Occupations 1 & 2
LEVEL: 3,4
One or two years
(Students also must enroll in R362, R372, or R382 Work Experience) Related Occupations is a general cooperative work program with paid work experience in any career or technology related field and the related classroom instruction. Appropri-
the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4,000 - 5,000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. (NCAA Course)

**R466 Leadership and Efficacy 4**

**LEVEL: 4**

One year

PREREQUISITE: Student Services Department recommendation

The course is meant to empower student leaders and provide them the opportunity to explore their personal history, cultivate their personal leadership philosophy, develop specific “soft skills”, and utilize academic supports within a structured environment. Students are expected to maintain high standards in regards to behavior and academics as well as be a positive representative of their school on campus as well as when participating in school events. This is a course for self-discovery and empowerment.

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**R510/R520/R530/R540 Adult Transition Program**

PREREQUISITE: Placement through the IEP development process (Students may also enroll in R500 work experience)

This program is designed for students age 18-21 who have mild to moderate intellectual disabilities, have met graduation requirements and require specific instruction and community-based experiences to facilitate the transition into independent adult life.

**R560/R570/R580/R590 New Endeavors Adult Transition Program**

PREREQUISITE: Placement through the IEP development process (Students may also enroll in R550 New Endeavors work experience)

This program is designed for students age 18-21 who have characteristics and/or behaviors along the autism spectrum, have met graduation requirements and require specific instruction and community-based experiences to facilitate the transition into independent adult life.

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**Cooperative Education**

Cooperative education programs are planned to provide students on-the-job training not available at the school. With the assistance of their teacher-coordinator and employer, students plan many of their own learning experiences. Serious thought needs to be given to the type of occupation a student wants to explore so that appropriate training stations may be secured.

Students must work a minimum of 15 hours per week in approved training and attend a related class in school. Training arrangements are agreed upon by students, their parents, the teacher-coordinator, and the employer. Students are paid for work they perform on the job.

In each High School District 211 cooperative education program, emphasis is placed on a different occupational cluster. Detailed information on programs offered at each school is available through your counselor.

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**T120 Career Orientation**

**LEVEL: 1**

One year

PREREQUISITE: Placement through staff conference recommendation

Students will use the 16 career clusters to explore possible vocational choices in relationship to their own personal interests, aptitudes and abilities. Additional units of study include job market trends and the skills needed to obtain employment.

**T220 Career Exploration**

**LEVEL: 2**

One year

PREREQUISITE: Placement through staff conference recommendation

This course meets the D211 Consumer Education graduation requirement, and includes units of study in financial literacy (budgeting, savings, credit, insurance), consumer rights, comparison shopping, and finding housing and transportation.

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*Nothing is impossible, the word itself says I’m possible!*

- Audrey Hepburn
T320 Career Preparation  LEVEL: 3,4  
One year  One unit  
(Students may also be enrolled in T560, T570 or T580 Work Experience for an additional unit of credit)  
PREREQUISITE: Placement through staff conference recommendation  
The general studies vocational program offers sequential instruction and work experiences that prepare students to secure and maintain employment. Students will use the 16 career clusters to explore possible vocational choices in relationship to their own personal interests, aptitudes and abilities. This course meets the D211 Consumer Education graduation requirement, and includes topics in financial literacy (paychecks, taxes, credit, budgeting, insurance). Job placement assistance is provided as needed.

T420 Career Preparation 2  LEVEL: 4  
One year  One unit  
(Students may also be enrolled in T560, T570 or T580 Work Experience for an additional unit of credit)  
PREREQUISITE: Placement through staff conference recommendation  
The general studies vocational program offers sequential instruction and work experiences that prepare students to secure and maintain employment. Students will use the 16 career clusters to explore possible vocational choices in relationship to their own personal interests, aptitudes and abilities. Additional units of study include topics in financial literacy (paychecks, taxes, credit, budgeting, insurance), and understanding the characteristics of a good worker. Individual vocational topics may be assigned based on the student’s interest, aptitude, and need. Job placement assistance is provided as needed.

Community Based Consumer Mathematics T190, T290, T390, T490, T690  LEVEL: 1,2,3,4  
One to four years  Two units per year  
(Students also may be enrolled in Work Experience T460, T470, or T480)  
PREREQUISITE: Placement through staff conference recommendation  
This course is designed for special needs students. The main goal is to teach students with developmental disabilities the skills necessary to begin preparation for transition to community living. The use of basic math, reading, and communication skills is emphasized in the school and the community. This course may be taken along with the work experience program which gives students specific vocational training on the job. When appropriate, a pre-vocational coordinator will assist the student in finding a job in the school or community.

T250, T350, T450 Cooperative Work Training  LEVEL: 2,3,4  
One to three years  Two units per year  
(Students also must enroll in T260, T270, or T280 Work Experience)  
PREREQUISITE: Placement through staff conference recommendation  
Cooperative Work Training is for students 16 years of age or older who are interested in developing skills that will prepare them to secure and maintain employment. Students will use the 16 career clusters to explore possible vocational choices in relationship to their own personal interests, aptitudes and abilities. Additional classroom units include topics in financial literacy (paychecks, taxes, credit, budgeting, insurance), and understanding the characteristics of a good worker. Individual vocational topics may be assigned based on the student’s interest, aptitude, and need. Job placement assistance is provided as needed. The T350 level of Cooperative Work Training meets the D211 Consumer Education graduation requirement.

T355, T455 Industrial Cooperative Education 1 & 2  LEVEL: 3,4  
One to two years  Two units per year  
(Students also may enroll in T365, T372, or T374 Work Experience)  
PREREQUISITE: Evidence of work with your counselor on career planning for the occupational area to be studied or completion of high school course work related to your occupational goal and potential training station. Also department approval; T355 is a prerequisite for T455. Students must be 16 years of age or older. Industrial Cooperative Education 1 & 2 are designed to give students on-the-job training in industrial-related occupations. Students may enroll for one or two years. They may work at a job to improve existing skills or they may be trained on a job for which they have no previous experience. Acceptable occupations require considerable training and include auto mechanics, commercial art, CAD drafting, graphic arts, tool and die, auto body repair, machine operation, welding, construction work, and other industrial-related occupations. Students meet daily with the teacher coordinator to discuss safety on the job, management of time, human relations, and information related to each student’s job. Training experiences are planned by the employer, teacher, and student based on the student’s occupational plans. Students must provide their own transportation to and from the community training station.

First say to yourself what you would be; and then do what you have to do.  
– Epictetus  
Greek stoic philosopher
Cooperative Education Off-Campus and Online Dual Credit Courses

V225 Graphic Arts 1 Visual Communications
LEVEL: 4
One-half year
One-half unit
PREREQUISITE: D211 District office approval
Students gain an overview of the graphic arts industry. The course covers Xerox, laser, ink jet, letter press printing, photography, and photo offset. Major emphasis is placed on development of materials, text, and graphics with use of the computer and computer network. The course is offered through the Educational Council for Student Success at Barrington High School. See your counselor for details on scheduling. Students must provide their own transportation.

V226 Graphic Arts 2 Color Pictures and Printing
LEVEL: 4
One-half year
One-half unit
PREREQUISITE: T225 Graphic Arts I and D211 District office approval
Graphics Arts II provides instruction on layout design, darkroom technique, masking, platemaking, and printing. Additional topics include computer-scanned graphics, halftones, and multi-color printing. Major emphasis is placed on computer software integrated and peripheral devices. This laboratory course, offered at Barrington High School, provides basic knowledge and skill development in the use of computers, silkscreen printing, and offset printing. Students must provide their own transportation.

V62201/V62202 Cosmetology
LEVEL: 4
One year
One unit per semester
Cosmetology classes are held at the Technology Center of DuPage. This program includes the first two semesters of a sequence of courses that begin to address Illinois State certification requirements, which concludes with an Illinois State certification examination. Classes run four hours daily and combine classroom and practical experience. This course also may require attendance on some Saturdays and other days of non-attendance. Students must provide their own transportation to the school. Career Counselors at each school have more information regarding specific program requirements, scheduling procedures, and details of additional post-graduate work that is required to achieve State certification.

W61303 Intro to Health Care Today
LEVEL: 4
One-half year
One-half unit
This dual-credit class meets on the Harper College campus. Transportation is provided between the high schools and Harper College. Students learn about common health-related careers by listening to guest speakers, touring health-care facilities, and taking part in classroom activities. Attention is given to fundamental health-care principles, basic patient-care skills, and other job entry skills and information common to many health-care occupations. Occupations explored during the course include nursing, medical office assistant, medical social worker, dietician, operating room technician, X-ray technologist, dental hygienist, mental health technician, pharmacist, inhalation therapist, optometrist, lab technician, and veterinarian. Students wishing to learn more about a particular health occupation also may wish to enroll in one of the district’s cooperative vocational education programs with a community-training station in their particular area of interest. Additional information is available from the career counselor at your school. Harper College Course HSC105, Intro to Health Care Today, 2 college credit hours.
W61503 Health Occupations Observations  
**LEVEL: 4**  
One-half year  
One-half unit  
**PREREQUISITE:** Concurrent enrollment in W61303 with instructor approval or successful completion of WW61303 with a grade of “C” or higher, or one semester of high school anatomy with lab with a grade of “C” or better  
Students are given an opportunity to gain practical experience in a hospital-based internship program designed to observe selected health occupations. By participating, students develop an understanding of healthcare procedures, problems and responsibilities. Successful completion of this course with a grade of “C” or higher gives students one and a half hours of college credit. For more information, contact the career counselor at your school. Students must provide their own transportation. *Harper College Course HSC106, Health Occupations Career Observation, 1.5 college credit hours.*

W61603 Introduction to Criminal Justice  
**LEVEL: 4**  
One-half year  
One-half unit  
The course is designed to acquaint students with the field of Criminal Justice. Students are introduced to the need for law enforcement in society; legal aspects of law enforcement, including basic principles of arrest, burden of proof, evaluation of evidence, and court/trial procedure. Students also receive an overview of the basic principles of police administration and government. Students and their parents should be aware that some of the content of this course contains graphic displays and language in keeping with simulations of actual field experiences. Upon successful completion students will earn one-half unit of high school credit and three college credits. This course is offered on the Harper College campus and transportation is provided. *Harper College Course LEJ101, Introduction to Criminal Justice, 3 credit hours.*

W61703 Corrections  
**LEVEL: 4**  
One-half year  
One-half unit  
**PREREQUISITE:** Completion of W61603 Introduction to Criminal Justice with a B or higher and instructor approval  
This course allows students continued study in the field of Criminal Justice. Topics include: Correctional Ideologies, the Processing of Criminal Offenders, Imprisonment, Capital Punishment, Probation, Parole, and Detention Facilities. Upon successful completion, students will earn one half unit of high school credit and three college credits and continue work toward a degree in Law Enforcement. This course is offered on the Harper College campus and transportation is provided. *(NCAA Core Course) Harper College Course LEJ104, Corrections, 3 college credit hours.*

W62303 Intermediate Japanese I  
**LEVEL: 1, 2, 3, 4**  
One-half year  
One-half unit  
**PREREQUISITE:** Harper College placement criteria  
Harper College online course with emphasis on more complex conversation and advanced grammatical components, continued reading and writing, and advanced composition. *Harper College Course JPN201, Intermediate Japanese I, 4 college credit hours. (NCAA Core Course)*

W62403 Intermediate Japanese II  
**LEVEL: 1, 2, 3, 4**  
One-half year  
One-half unit  
**PREREQUISITE:** W62303 Intermediate Japanese I (A, B or C) or consent of instructor  
Harper College online course emphasizing accuracy and ease in more complex conversation, advanced study of reading and writing, and the study of more complex syntax and composition. *Harper College course JPN202, Intermediate Japanese II, 4 college credit hours. (NCAA Core Course)*

W62503 Japanese Oral Practice  
**LEVEL: 1, 2, 3, 4**  
One-half year  
One-half unit  
**PREREQUISITE:** W62403 Intermediate Japanese II (A, B or C) or consent of instructor  
Develops oral facility with the Japanese language using specially designed exercises in pronunciation, stress, and rhythm. Discusses individual readings of modern Japanese works in class. Assigns written and oral compositions based on readings. Helps students to bridge the gap between the intermediate and advanced levels. Develops the ability to use the Japanese language with fluency and accuracy of expression that is achieved by extensive oral conversion in class. *Harper College course JPN205, Japanese Intensive Oral Practice, 3 college credit hours. (NCAA Core Course)*
W62603 Forensics  LEVEL: 4
One-half year  One-half unit
This course introduces students to the use of scientific disciplines in crime investigation. It identifies the variety of sources of evidence and the means by which comparative analysis can be made. Introduces student to probability theory. It also develops skills in crime scene technology, fingerprinting, photography and recording. This course is offered on the Harper College campus and transportation is provided. Harper College Course LEJ116, Forensics, 3 college credit hours.

W63503/W63603 American Sign Language  LEVEL: 4
One year  One unit
PREREQUISITE: Minimum GPA of 3.00 and strong English skills
This course begins training for those interested in becoming certified to perform this service. The entire 40-hour college program prepares students to take the written and performance test for national certification. Upon successful completion, students will earn one unit of high school credit and eight college credits. This course is offered on the Harper College campus and transportation is provided. (The course credit does not apply toward the four-year English requirement for graduation.) Harper College Course SGN101 and SGN102, American Sign Language 1 & 2, 4 college credit hours.

W65403 Intro to Networking  LEVEL: 3,4
One-half year  One-half unit
PREREQUISITE: T67203 with a grade of “C” or better
This course provides students with hands-on experience implementing and maintaining computer networks. Includes networking standards, architecture, operations, security and troubleshooting using current network operating systems. This course also is offered as a dual credit course at Harper College. Successful completion gives students three hours of college credit and an opportunity for advanced placement in Harper’s NET program. Transportation is provided between Harper College and the high school. For more information, contact the career counselor at your school. Harper College Course NET121, Intro to Networking, 3 college credit hours.

W66303 Introduction to Fire Science  LEVEL: 4
One-half year  One-half unit
This course examines the basic fundamentals and many facets of fire protection. Students are introduced to occupations in both public and private agencies related to the fire protection industry. Topics include characteristics and behavior of fire, fire safe building design and construction, fire protection systems and equipment, municipal fire defenses and fire department organization codes and standards. The class meets at Harper College. Successful completion gives the students three hours of college credit and an opportunity for advanced placement in Harper College’s program. Transportation is provided between Harper College and the high school. For more information, contact the career counselor at your school. Harper College Course FIS100, Fundamentals of Fire Protection, 3 college credit hours.

W66403 Fire Behavior and Combustion  LEVEL: 4
One-half year  One-half unit
PREREQUISITE: Instructor’s approval and successful completion of W66303 Introduction to Fire Science
This course is designed to better prepare interested students in a career as a fire fighter. Topics are aligned to meet needs related to certification and include such topics as chemistry of fire, flammable liquids, pressurized gases, cryogenics, combustible solids, and oxidizing agents. The class meets at Harper College. Successful completion gives the students three hours of college credit and an opportunity for advanced placement in Harper College’s
program. Transportation is provided between Harper College and the high school. For more information, contact the career counselor at your school. Harper College Course FIS121, Fire Behavior & Combustion, 3 college credit hours.

**W65503 Internet Protocols**  LEVEL: 4  
One-half year  
PREREQUISITE: T67203 with a grade of “C” or better  
This course provides students with a detailed examination of internet addressing and protocols. Includes IP addressing, routing, IP, ICAMP, ARP, TCP, VDP, DHCP, DNS, HTTP, FTP, and SMTP. This course also is offered as a dual credit course at Harper College. Successful completion gives students three hours of college credit and an opportunity for advanced placement in Harper’s NET program. Transportation is provided between Harper College and the high school. For more information, contact the career counselor at your school. Harper College Course NET122, Internet Protocols, 3 college credit hours.

**W68303 Refrigeration Fundamentals**  LEVEL: 4  
One-half unit  
PREREQUISITE: Prior or concurrent enrollment in ELT110 (Introductory Electronics) and MTH097 (Basic Technical Mathematics) with grades of “C” or better, or consent of coordinator  
Activities and objectives of this course are designed to introduce students to the array of careers within the HVAC industry as well as to develop some basic competencies. Areas of study include trouble shooting, assembling and charging a refrigeration system, as well as pressure, energy transfer, heat, and matter. This class meets at Harper College. Successful completion gives a student four hours of college credit and an opportunity for advanced placement in Harper College’s program. For more information, contact the career counselor at your school. Harper College Course HVA103, Heating Principles, 3 college credit hours.

**W68403 Heating Principles**  LEVEL: 4  
One-half unit  
This class is taught in an open laboratory forum. Students must accumulate five laboratory hours each week.  
PREREQUISITE: Prior or concurrent enrollment in ELT110 (Introductory Electronics) with a grade of “C” or better, or consent of coordinator  
This course was designed to give students an understanding of heating principles and practical experience in working on heating systems. Students schedule lab times with the RAC (Refrigeration and Air Conditioning) personnel in the RAC lab as soon as possible after registration and begin course work as soon as they are able. This class meets at Harper College. Successful completion gives a student four hours of college credit and an opportunity for advanced placement in Harper College’s program. For more information, contact the career counselor at your school. Harper College Course HVA103, Heating Principles, 3 college credit hours.

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Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence.

– Helen Keller  
Author and political activist
W68503 Heating and Cooling Controls  LEVEL: 4  
One-half year  One-half unit
PREREQUISITE: ELT110 (Introductory Electronics) and MTH097 (Basic Technical Mathematics) with grades of “C” or better
This course is designed to provide students knowledge regarding heating and cooling systems and to give them practical experience in identifying and trouble-shooting system problems. Students schedule lab times with RAC (Refrigeration and Air Conditioning) personnel in the RAC shop as soon as possible after registration and begin course work as soon as he/she is able. This class meets at Harper College. Successful completion gives a student four hours of college credit and an opportunity for advanced placement in Harper College’s program. For more information, contact the career counselor at your school. *Harper College Course HVA105, Heating and Cooling Controls, 3 college credit hours.*

W68603 Refrigeration Systems  LEVEL: 4  
One-half year  One-half unit
This class is taught in an open laboratory forum. Students must accumulate five laboratory hours each week.
PREREQUISITE: Completion of W68303 Refrigeration Fundamentals with a “C” or higher or instructor consent
The purpose of this course is to give students an opportunity to continue to develop principles and concepts learned in W68303, Refrigeration Fundamentals and to familiarize students with components and accessories added to basic refrigeration systems for special applications. Students also will develop trouble-diagnosing procedures. This class meets at Harper College. Successful completion gives a student four hours of college credit and an opportunity for advanced placement in Harper College’s program. For more information, contact the career counselor at your school. *Harper College Course HVA102, Refrigeration Systems, 3 college credit hours.*

*If we did all things we are capable of doing, we would literally astonish ourselves.*  
— Epictetus  
Greek stoic philosopher
About College Majors & Career Clusters

The current employment outlook for the United States indicates that most jobs will require postsecondary education and training beyond high school. Whether a student is preparing to attend a four-year university, a two-year college or the work force, the exploration of possible careers and college majors is vital. Though many students may continue to change their minds about their career or college major selections, it is valuable for students to explore multiple areas while still in high school to assist in decisions about where their skills and passions exist.

The development of career pathways around the 16 career clusters will facilitate career and college major conversations.

The 16 career clusters include:

• Agriculture, Food and Natural Resources
• Architecture and Construction
• Health Sciences
• Hospitality and Tourism
• Science, Technology, Engineering and Mathematics (STEM)
• Manufacturing
• Education and Training
• Human Services
• Government and Public Administration
• Interactive and Information Technology
• Transportation, Distribution and Logistics
• Arts and Communication
• Business Management and Administration
• Finance and Accounting
• Law, Public Safety, Corrections and Security
• Marketing

The website D211careercluster.org allows students and parents to begin to explore the career clusters and specific District 211 information. Students are encouraged to increase their exploration by logging into their Xello account. Xello is software available to students to explore college and career options specifically tailored to the students’ interests and skills. Xello offers a Matchmaker self-assessment which give students initial clusters to investigate. Students are encouraged to take the assessment multiple times throughout their high school careers as interests may change over time.

Pathways within the 16 clusters represent a specific series of courses to be taken during high school. Students are encouraged to explore different clusters and pathways continually seeking connections to areas of passion and skill.
Example

Agriculture, Food, and Natural Resources prepares learners for diverse careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical, and educational services.

Next Steps:
1. Explore the tabs above to see more details about this College Major and Career Cluster.
2. Find District 211 courses and after school connections you are interested in exploring.
3. Sign into your District 211 Career Cruising account to take self-assessments and find out more about colleges/careers.
   - In Career Cruising, explore the “Careers” tab to find additional information on jobs, degrees, and majors.
   - In Career Cruising, explore the “Assessment” tab to take a self-assessment to see where your interests may lead.
4. If you are a current high school student, go to your Student Services Department and make an appointment to see your counselor to discuss future options.
5. Go to the “My Plan” tab above and see what course openings you have to explore this college major and career in addition to your courses required for graduation.
6. Visit your counselor to discuss how and when course selection occurs each year of high school.