INTRODUCTION

The Program of Studies booklet is designed to help students plan their high school curriculum. The booklet provides information about graduation requirements, post high school considerations, options, and specific information about the courses offered at West High School.

Counselors meet with students at every grade level to review the course selections. The process of choosing classes involves consideration of graduation requirements, vocational plans, college entrance requirements, student abilities, student interests, and future plans. It is our hope that students will use this booklet while planning their program of study and also discuss course selections with their counselor, teachers, and parent(s).

West High Smaller Learning Communities (SLC)

West High School is divided into four smaller learning communities (SLC). Named after the streets surrounding the school, each SLC has approximately 500 students in grades 9-12 and is under the leadership of an assistant principal.

Each SLC has a Building Intervention Team (BIT), comprised of the SLC principal, counselor, a social worker, a psychologist, and a nurse. The team meets weekly to collaborate on student academic and behavioral progress. Every family at West is assigned to one of the four SLCs and will remain in that SLC for the duration of their high school experience. This allows the support team to really get to know each student and family.

The West High School staff recognizes the ninth and tenth grades are times of transition. In order to ease the transition, ninth and tenth graders take their core academic classes (English, Social Studies, Math, and Science) within their SLC. Electives are taken with the general population. Common planning time is provided for teachers to coordinate curriculum, share teaching strategies, and problem solve on student academic and/or emotional needs.

COURSE INFORMATION

Understanding the Course Code Numbers: Each course is assigned a code number consisting of 3 letters and 3 numbers. The letters indicate the department offering the course (see categories below). The last number in the code indicates which semester the course is offered (see Course Ending # below).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Department</th>
<th>Course Ending #</th>
<th>Sem 1</th>
<th>Sem 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>Art</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS</td>
<td>Business</td>
<td>1</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ENG</td>
<td>English</td>
<td>2</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>FCS</td>
<td>Family &amp; Consumer Sciences</td>
<td>5</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>FOR</td>
<td>Foreign Language</td>
<td>6</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>GEN</td>
<td>General</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT</td>
<td>Mathematics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRK</td>
<td>Marketing</td>
<td>3</td>
<td>X</td>
<td>OR X</td>
</tr>
<tr>
<td>MUS</td>
<td>Music</td>
<td>7</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>PHY</td>
<td>Physical Education</td>
<td>8</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SCI</td>
<td>Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC</td>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEC</td>
<td>Technology and Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XIS</td>
<td>Special Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZSL</td>
<td>English as a 2nd Language</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year-Long Courses</th>
<th>Semester-Long Courses</th>
</tr>
</thead>
</table>


GENERAL INFORMATION

U.S. Transfer Students
Transfer students enter West High School from schools using a variety of different credit systems. Schools may require more or less credits for graduation than West. The following system is used when evaluating transfer credits:

1. Determine the minimum number of required credits for graduation at the former school.
2. Calculate the percentage of graduation credits the student completed at the former school.
3. Calculate the number of West credits represented by that percentage.
4. Using a combination formula, calculate the number of total credits required for graduation from West.
5. Determine specific West courses needed for graduation.

Foreign Transfer Students
Foreign transfer students must present English translations of official educational documents verifying all of the previous educational experience. Tentative grade level placement will be made when a student enrolls in a Madison Metropolitan School District high school. Official grade level placement will be made after the translated documents are reviewed. Schools do not attempt to equate grades and courses taken in foreign school systems to the MMSD grading systems or courses. Each student’s MMSD transcript reflects the total number of MMSD credits awarded for the student’s prior educational experience. Five and one half credits will be awarded for each successful year of secondary level education in their home country.

“Incomplete” Course Work
Semester incomplete grades must be completed within the first six (6) weeks of the following semester unless other arrangements are made with the approval of the learning community principal. Any student who does not make up work within the six-week period will automatically receive an “F” for the course, unless the teacher indicates another grade.

Course Re-Takes
To increase proficiency/mastery or to gain credit, students may retake a course in which they have earned a grade of F, D, C, B, or NC. There are two categories of course retakes:

1. The identical MMSD course, which may be with a different teacher, taken at the next scheduled offering of the course during a school year, or online via Madison Virtual Campus (MVC). The MVC course must be completed by the time the next scheduled offering of the course during a school year is completed. For example, a student who fails the first semester/term of World History in 09-10 must complete the MVC first-semester World History course by the end of the first semester/term in 10-11.
2. An MMSD “equivalent” course taken during the next available session of Summer School. Each year high school and Summer School principals will determine those Summer School courses which are equivalent, e.g., “U.S. History-semester 1” as the Summer School equivalent to “U.S. History-9, semester 1”.

When students retake a course after the time limit in item 1 above, the following practices apply:

1. Both the original grade and the retake grade are calculated in the GPA. The lower grade is not dropped from the GPA.
2. Students who originally failed a course receive credit for retaking and passing the course. Obviously, students who retake a course which they originally passed do not receive additional credit for the retake.

**Note:**
Transcripts will reflect all courses taken and grades earned. For course retakes completed within the proper time frame, both the original grade and the retake grade will appear on the transcripts; and the higher of the two grades, original or retake, will be included in the GPA. The lower of the two grades will not be included in the GPA; nor will credit be granted for that course.
Pass/Fail, Audits, Schedule Adjustments, & Credit for Non-MMSD Educational Experiences

Petition for Pass/Fail course requirements: (1) The course must be a sixth credit course for Sophomores and Juniors and a fifth credit course for Seniors. If a student drops any other course, the Pass/Fail course will become a regular graded course. (2) The course must not be a required course. (3) Decision about taking a course as a Pass/Fail course must be made during the first three weeks of the semester and thereafter not changed. (4) A “D” or above in the course must be maintained for a “Pass” and credit. (5) The course will not be counted in computing the grade point average. (6) Policies for dropping a student from the course will be based on normal procedures. (7) Only one course per semester may be taken on the Pass/Fail grading system.

Petition to Audit a course requirements: (1) Students may elect, with the permission of the teacher, to take a sixth course for “Audit” rather than grade. The auditor is to fulfill all class requirements as any other student; however, an audit student received no grade nor credit. (2) The course must not be a required course. (3) Decision about taking the course as an audit must be made during the first three weeks of the semester and thereafter not changed. (4) Policies for dropping a student from the course will be based on normal procedures. (5) Only one course per semester may be taken for audit. Petition must be submitted for approval each semester.

Credit For Non-MMSD Educational Experiences Which Are Not Part of Youth Options or Youth Apprenticeship:

In SOME cases high school credit may be granted for elective, pre-approved non-Youth Options educational experiences taken outside MMSD if a comparable course is not offered through the MMSD curriculum. Grades will not be counted in the grade point average.

In ALL cases students must receive prior approval from their SLC principal and the chair of the West High School department to which the non-MMSD educational experience is related. Forms to be used in requesting prior approval can be obtained in the West Counseling Office.

Note: Requesting a course via the Youth Options Program and having that request denied by MMSD does not constitute prior approval.

Grade Changes
Grade changes must be made no later than the semester following that in which the grade was issued. Seventh semester grades cannot be changed for the purpose of scholarships, after the seventh semester rank is calculated.

Early Graduation
Early graduation is open to all West High students meeting the regular graduation requirements. A student interested in graduating early should secure an application form from his or her counselor. Normally this is done at least one semester prior to the date of early graduation. Before final approval of an early graduation request, the parent(s), principal and counselor signatures must be obtained and a credit check completed.

ASSORTED EDUCATIONAL OPPORTUNITIES & PROGRAMS

Advanced Placement Courses: The Advanced Placement (AP) program allows students to take college level courses which are taught within the high school. Course content includes preparation of students for the Advanced Placement tests which are given each May and are graded on a 1-5 basis. Many colleges and universities grant college credit for scores of 3 or above. Contact the college/university for accurate information. Students may take AP tests in any subject area even if they are not enrolled in AP classes.

Alternative Programs: MMSD offers several alternative educational programs designed to meet the needs of students who may be seeking an alternative kind of learning experience other than the traditional high school program at West. These programs are listed in the table below. Parents and students interested in exploring these options are encouraged to contact their school counselors.
### MMSD Alternative Programs

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Grade Levels</th>
<th>Eligibility Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO – Alternative Education Resource Options</td>
<td>Retained 8th</td>
<td>Referral Process</td>
</tr>
<tr>
<td>CRIS - Credit Recovery &amp; Increasing Skills</td>
<td>9-12</td>
<td>Referral Process</td>
</tr>
<tr>
<td>SAPAR - School-Age Parent Program</td>
<td>5-12</td>
<td>Pregnant/Parenting</td>
</tr>
<tr>
<td>Shabazz City High</td>
<td>9-12</td>
<td>Referral Process</td>
</tr>
<tr>
<td>Transition Learning Center (TLC)</td>
<td>9-12</td>
<td>Referral Process</td>
</tr>
<tr>
<td>Dane County Jail MMSD Educational Program</td>
<td>14-21 yrs</td>
<td>Court System Only</td>
</tr>
<tr>
<td>DCP – Diploma Completion Program</td>
<td>16-21 yrs</td>
<td>Referral Process</td>
</tr>
<tr>
<td>MATC for Credit</td>
<td>16-20 yrs</td>
<td>Special Entrance Requirements</td>
</tr>
<tr>
<td>WLC – Work &amp; Learn Center</td>
<td>3rd Yr. HS+</td>
<td>Referral Process</td>
</tr>
<tr>
<td>Omega HSED/GED</td>
<td>17-18.5 yrs</td>
<td>Referral Process/Contract</td>
</tr>
<tr>
<td>Operation Fresh Start HSED/GED</td>
<td>17-18.5 yrs</td>
<td>Referral Process/Contract</td>
</tr>
<tr>
<td>MATC HSED/GED</td>
<td>18-18.5 yrs</td>
<td>Referral Process/Contract</td>
</tr>
<tr>
<td>Project Road</td>
<td>4th Yr. student</td>
<td>Referral Process</td>
</tr>
<tr>
<td>MVC-Madison Virtual Campus</td>
<td>9-12</td>
<td>Request and apply</td>
</tr>
</tbody>
</table>

**AVID:** AVID is a college readiness program for qualifying students to receive support-academic and social-as they develop the faculty for advanced courses in high school. Students in the program enroll in an AVID course where they learn goal setting, note-taking, writing skills, and reading strategies for each of their high school years. Motivational activities include speakers, field trips, college visits and seminars.

Prerequisites: AVID program students have average to high test scores, a 2.0-3.5 qualifying GPA, college potential with support, desire and determination. AVID students must also meet one or more of the following criteria: first to attend college, historically underserved in four-year colleges, low income, and/or have special circumstances. Students apply and are admitted into the program beginning with their freshman year. Please see a counselor for the application.

**English Language Learners (ELL):** The English as a Second Language (ESL) program offers courses in English to students with limited English proficiency in grades 9-12. Courses include: social studies, science and math. (See listing of ESL courses for descriptions and placement information.)

**Foreign Study for Students Still in High School:** West High School wishes to support student interest in spending a semester or academic year studying abroad. However, changes in college entrance requirements make meeting with a counselor for careful and specific planning more important for students considering studying abroad during the 10th, 11th or 12th grade year. Also, be aware that studying abroad during the senior year may affect eligibility for West High School scholarships.

Upon returning to Madison, it is the **responsibility of the student** to provide official transcripts (translated in English) from all schools attended in foreign countries. These records must include:
- Dates of entrance and withdrawal
- All courses studied, including length of each class period and the number of times the class met per week
- A grade for each course
- **Note** - students will need to meet the Board of Education credit granting policy.

See a counselor for information.

**Internship (Co-Op) Programs:** The Marketing Internship Program is a course that includes on-the-job training for which high school credit is received along with a salary from the employer. The internship program contains two components: class and co-op work. Instruction is required for one period each day in the classroom, followed by work at the job site after school. This program is open to seniors only.

**MMSD Madison Virtual Campus:** Is Online Learning Right For You? To find out, please visit: [http://www.madison.k12.wi.us/tnl/mvc](http://www.madison.k12.wi.us/tnl/mvc)

If you have questions, please talk to your school’s online teacher: Ms. Donna Strabala-West HS Online Teacher: [DMStrabala@madison.k12.wi.us](mailto:DMStrabala@madison.k12.wi.us) Office: 608-204-3216.
**Special Education:** West High School offers many special education courses (coded as: XIS) that are listed in the Program of Studies. These courses are designed only for specific students who have been determined by the district to have special education needs.

**Summer School:** Summer school offers students the opportunity to repeat failed courses and to build skills. Students may **not** use summer school to work ahead in English, science, social studies, math or physical education. Summer school runs for six weeks starting in mid-June. Attendance is strictly monitored. (The Summer School bulletin is mailed to all families each year in May.)

**Work Experience:**

**Prerequisites:**
1. Must be at least 16 years of age, **and**
2. Must be deficient in credit towards graduation (as determined by the counselor)

Students are required to discuss the options for work experience with their counselor, and must submit a work experience application to their counselor within the first two weeks of the semester. Students must secure their own jobs. Students must be employed at least 16 out of 18 weeks of the semester and average a minimum of 10 hours per week, or a total of 180 hours for the semester. Students will receive ½ credit per semester when successfully meeting all requirements of the work experience program (see application). Work experience applications are available from the counselor.

Work experience is not available to students planning on early graduation, or students simultaneously enrolled in Marketing Co-Op. There is the potential to earn a total of 2.0 credits from work experience and co-op programs toward the 22-credit graduation requirement.

**Youth Apprenticeship Program:** Youth Apprenticeship is a rigorous one or two-year elective program for juniors and/or seniors that combines academic and technical classroom instruction and mentored on-the-job learning for high school students. Hands-on learning at the job site is combined with classroom instruction to help students make the connection between school and the workplace.

At the time of graduation, students not only receive a high school diploma, but also receive a Certificate of Occupational Proficiency from the Wisconsin Department of Workforce Development. At this time the state-approved apprenticeships are in: Printing/Graphic Arts, Banking/Finance, Auto Technician, Biotechnology, Financial Services, Health Services, Information Technology, Manufacturing/Plastics, Production Agriculture and Tourism clusters.

For more information, please visit the Dane County School Consortium website at [http://www.dcsc.org](http://www.dcsc.org) and click on the “Youth Apprenticeship Program” tab.

**Madison Metropolitan School District Youth Apprenticeship Program Contact Person:**
Gabrielle Banick, (608) 663-5229, gbanick@madison.k12.wi.us

**Dane County Contact Person:**
Diane Krause, (608) 224-7165

**Youth Options:** The Youth Options Program (YOP) permits qualified 11th or 12th grade students to attend a Wisconsin institution of higher education in order to take courses that lead to credit granted toward high school graduation. The school district is required to pay for the course(s) if no comparable course is offered in any of the MMSD high schools and if the course is approved for high school credit. If the course is taken for post-secondary credit only, the participating student pays the cost. Students wishing to participate should: (1) discuss their plans with their counselor, (2) complete a Youth Options Program Plan and Report application form, (3) obtain a syllabus for the course(s) from the college and attach them to the application form, and (4) mail the application form with course syllabus to Nancy Yoder, Director of Student Services and Alternative Education.

**Deadlines:** Must apply **before** March 1st for fall semester and **before** October 1st for spring semester. (See your counselor for more information and an application.)
**COLLEGE ADMISSION TESTING**

All colleges and universities require an ACT or SAT reasoning exam to use for the purpose of admission and placement. Sophomores are encouraged to take the PLAN test (a practice test for the ACT) in November. Juniors are encouraged to take the PSAT (a practice test for the SAT and a qualifier for the National Merit Scholarship Program) in October. Juniors are strongly advised to take the ACT/SAT Reasoning exam(s) in the spring of their junior year. For SAT information, visit the website at [www.collegeboard.com](http://www.collegeboard.com) or for ACT information, please see [www.actstudent.org](http://www.actstudent.org).

**POST HIGH SCHOOL PLANNING**

Students will receive post high school information from their counselor during developmental guidance units, in group meetings and one-on-one meetings. In addition, students may access career and college related information in the Career Resource Center (CRC) by accessing the internet and the Wisconsin Career Information System ([www.Wiscareers.wisc.edu](http://www.Wiscareers.wisc.edu)), a career planning and post-secondary resource.

The Counseling Office has printed materials, video tapes, DVDs and CD’s pertaining to colleges, ACT and SAT preparation and testing, apprenticeships, military options, and career/occupation options. In addition, each year over 100 colleges send representatives to West High School. The visit schedules are posted outside of Room 203 (Counseling Office) and/or on the school web site: [http://westweb.madison.k12.wi.us](http://westweb.madison.k12.wi.us). Students applying to colleges may use the Career Resource Center to apply on-line. All UW System schools encourage applications electronically. Please encourage your student to use all the resources provided in the CRC in planning for their future.

**POST SECONDARY SCHOOL REQUIREMENTS**

**Out-of-State and Private Colleges and Universities:** These schools differ in entrance requirements. Students are encouraged to use the Counseling Office resources and visit the individual college websites for up-to-date, accurate information. **It is the responsibility of the student to become familiar with specific college entrance requirements and to plan a high school program with the assistance of parent(s), teachers and counselor in order to meet those various entrance requirements.**

**UW System Admission Requirements (non-Madison):** All UW System institutions require a minimum of 17 high school credits (one credit is equal to one year of study) distributed as follows:

<table>
<thead>
<tr>
<th>Core College Preparatory Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Social Science/History</td>
</tr>
<tr>
<td>Natural Science</td>
</tr>
<tr>
<td>Elective Credits</td>
</tr>
</tbody>
</table>

Elective credits are chosen from the core college preparatory areas above, as well as Foreign Language, Fine Arts, Computer Science and other academic areas. **A minimum of two credits in a single Foreign Language is required for admission to UW-Eau Claire and UW-Madison** and may help meet graduation requirements at other UW system campuses. Some campuses may accept vocational/technical courses for a portion of these four credits.

Students are encouraged to check the course requirements for a specific campus in the booklet *Introduction to the University of Wisconsin System* available in the Counseling Office or at [www.uwhelp.wisconsin.edu](http://www.uwhelp.wisconsin.edu) to compare requirements that may exceed the minimum required courses. This information will help you select college preparatory credit courses. If you have questions about acceptability of a specific high school course, contact the admissions office of the campus you plan to attend, or call the HELP office at 1-800-442-6459.

A **new guaranteed transfer program** allows students to transfer to the University of Wisconsin four-year campus of their choice providing transfer requirements are met. (See the above website for more information.)
University of Wisconsin-Madison
(Information comes from www.wisc.edu “Freshman Admission Requirements”)

“Admission is competitive and selective. Academic preparation and success are the primary considerations for admission, but numbers alone do not determine admissibility. We consider high school performance (rigor of course work, academic GPA, grade trends and/or class rank), ACT and/or SAT scores, non-academic qualifications (extracurricular activities, leadership, service and talent), personal essays recommendations.” Special talents and a commitment to extracurricular or service activities will make a good application stronger. They will never, however, make an academically weak application admissible”.

UW-Madison Freshman Class Profile for Admitted Freshmen:

<table>
<thead>
<tr>
<th>Course</th>
<th>Minimum Required for Application</th>
<th>Typical Preparation for Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 units</td>
<td>4+ units</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algebra/Integrated Math 1</td>
<td>1 unit</td>
<td>1 unit</td>
</tr>
<tr>
<td>Geometry/Integrated Math 2</td>
<td>1 unit</td>
<td>1 unit</td>
</tr>
<tr>
<td>Advanced Math/Integrated Math 3, 4</td>
<td>1 unit</td>
<td>2+ units</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 units</td>
<td>4+ units</td>
</tr>
<tr>
<td>Science</td>
<td>3 units</td>
<td>4 units</td>
</tr>
<tr>
<td>Single Foreign Language</td>
<td>2 units</td>
<td>4 units</td>
</tr>
<tr>
<td>Additional Academic/Fine Arts</td>
<td>2 units</td>
<td>2+ units</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17 units</td>
<td>22+ units</td>
</tr>
</tbody>
</table>

ADDITIONAL OPPORTUNITIES FOR POST SECONDARY LEARNING

Vocational school, specialty schools, apprenticeship programs and the military are some of the possibilities which represent excellent learning opportunities and future careers. These should be investigated by students with the assistance of their counselor.

National Collegiate Athletic Association (NCAA) Requirements
Potential Division I and II athletes must meet NCAA academic eligibility requirements and apply during junior or senior year in high school prior to entering a college. Please visit the following website for further course eligibility: www.ncaaclearinghouse.net.

Note: The following courses DO NOT qualify for NCAA purposes: Multico, Work Study, and Independent Study. Students enrolled in special education classes should see their counselor regarding course eligibility.

SCHEDULING PROCEDURES

Scheduling Process
West High School strongly advises students to carefully choose subjects during the scheduling process in February. Students are given several weeks to look through the Program of Studies book and ask questions of parents, teachers and counselors before making their final selections for the coming year. Students MAY NOT make changes later, as allocation decisions for the following year are based on student course requests.

The following is our normal scheduling process:

Late January or February
• Counselors meet with students to explain the scheduling process, review the Program of Studies book and clarify student questions.

February
• Students enter course requests.

March
• Counselors review student course requests.

Mar/Apr
• The Master schedule is built

May
• Counselors will contact students with conflicts, errors or incomplete schedules.

August
• Students will receive their tentative schedules during enrollment week.
  Specific enrollment times are included in the enrollment packet, mailed in July.
Schedule Adjustments

**Schedule adjustments will only be made during enrollment week if:**

1. A student did not pass a class that was required and/or the student’s schedule does not meet grade level or graduation requirements.
2. A student did not pass a class that was a prerequisite for another class.
3. A student’s Youth Options course or other approved MMSD course conflicts with the student’s schedule.
4. Summer school coursework necessitates a change in the student’s schedule.

In addition, schedule adjustments during the first seven weeks will only include the following:

1. Students can drop an extra class while still maintaining a minimum credit load.
2. If the extra class that is dropped is a year-long class, or if the dropped class is a prerequisite for a second semester class, a new class for second semester may be added in the same period as the dropped class.
3. Teacher initiated level changes for a student.

An appeal form needs to be submitted to the counselor for all other requests **before the end of the first week of the semester.**

Dropping A Class

1. Students must maintain minimum required course load.
2. **Classes cannot be dropped after the 7th week.** Drops after the 7th week will result in a grade of “F” for the semester.
3. Drops made after the first day of school require a completed drop form.
4. Athletes must check with their coaches to see if they will still be enrolled in the required amount of courses to enable them to participate in sports. This is a WIAA rule- **it is the student’s responsibility to ensure they are in compliance.**

**RECOMMENDED COURSES FOR WEST HIGH STUDENTS**

**FOUR YEAR PLANNING SHEET—SEM 1**

<table>
<thead>
<tr>
<th></th>
<th>SEMESTER 1 9TH GRADE*</th>
<th>SEMESTER 1 10TH GRADE</th>
<th>SEMESTER 1 11TH GRADE</th>
<th>SEMESTER 1 12TH GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>English 9</td>
<td>English 10</td>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>3</td>
<td>Integrated Math 1, Algebra 1 or higher</td>
<td>Integrated Math 2, Geometry or higher</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>4</td>
<td>Biology/Elective**</td>
<td>Science/Elective**</td>
<td>Elective**</td>
<td>Elective**</td>
</tr>
<tr>
<td>5</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>6</td>
<td>Health***</td>
<td>Physical Education Elective*</td>
<td>Physical Education Elective*</td>
<td>Extra or Commons</td>
</tr>
<tr>
<td>7</td>
<td>Extra or Resource Hall</td>
<td>Extra or Resource Hall</td>
<td>Extra or Commons</td>
<td>Extra or Commons</td>
</tr>
</tbody>
</table>
### RECOMMENDED COURSES FOR WEST HIGH STUDENTS

#### FOUR YEAR PLANNING SHEET—SEM 2

<table>
<thead>
<tr>
<th></th>
<th>SEMESTER 2 9TH GRADE*</th>
<th>SEMESTER 2 10TH GRADE</th>
<th>SEMESTER 2 11TH GRADE</th>
<th>SEMESTER 2 12TH GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>English 9</td>
<td>English 10</td>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>U.S. History 9</td>
<td>Western Civilization</td>
<td>Social Studies/Area Studies*</td>
<td>Elective</td>
</tr>
<tr>
<td>3</td>
<td>Integrated Math 1, Algebra 1 or higher</td>
<td>Integrated Math 2, Geometry or higher</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>4</td>
<td>Biology/Elective**</td>
<td>Science/Elective**</td>
<td>Elective**</td>
<td>Elective</td>
</tr>
<tr>
<td>5</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>6</td>
<td>Physical Education 9*</td>
<td>Physical Education Elective*</td>
<td>Physical Education Elective*</td>
<td>Extra or Commons</td>
</tr>
<tr>
<td>7</td>
<td>Extra or Resource Hall</td>
<td>Extra or Resource Hall</td>
<td>Extra or Commons</td>
<td>Extra or Commons</td>
</tr>
</tbody>
</table>

Minimum required course load: 6.0 Credits + .5 Advisory 9
* Either semester
** Students may elect to take science
*** Can take in either 9th or 10th Grade

Minimum required course load: 5.5 Credits
* Either semester (but not both)
** Students may elect to take science in Grade 10. Must have 2 years of science to graduate.

Minimum required course load: 5.5 Credits
* Either semester
** Science if not taken freshmen year

Minimum required course load: 5.0 Credits
Recommended Course load: 5.5 Credits

**REMINDER:** Colleges and universities look at course loads, (both quantity and quality) this includes the senior year. Seniors are strongly encouraged to take six subjects both semesters.

### Student Course Load

To allow that students develop a broad subject matter background as well as a degree of specialization in one or more areas, students are encouraged to choose a minimum of six classes. Seniors must be fulltime WHS students, excluding Work Experience credit, in order to apply for a WHS scholarship. Colleges and universities **DO** look at course loads (both quantity and quality). The required minimum course load is:

- Freshmen: 6.5 Credits
- Sophomores: 5.5 Credits
- Juniors: 5.5 Credits
- Seniors: 5.0 Credits

The following rules govern course selection, credits and transcripts:

### Grade Placement

Placement of students in Grade 12 (Senior year) depends on the number of credits earned.

<table>
<thead>
<tr>
<th>Credits required to be classified a 12th grade student</th>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>18.0</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Seniors are expected to maintain credits necessary to qualify them for graduation. A student must be within 1.5 credits of completing the graduation requirements in order to participate in the graduation ceremony. A diploma will be issued upon the completion of graduation requirements.

### Graduation Requirements

- The Board of Education Policy 3540 requires **all** students earn a minimum of 22 credits in order to be eligible for graduation.
- This **must** include:
  - 1½ credits of physical education earned over 3 years
  - ½ credit of health
  - 4 credits of English
  - 3 credits of social studies (to include 1 credit of US History in 9th grade and a ½ credit of Contemporary US history during 10th, 11th or 12th grade)
  - 2 credits of math (to include Algebra and Geometry or Integrated Math 1 and 2)
  - 2 credits of science (which includes instruction in biological and physical sciences.)
**9th Grade** - a minimum of 6.50 credits to be earned (required), at least 6 classes each semester plus Freshmen Advisory. (Students must take one semester of Physical Education and one semester of Health.)

- English 9
- US History 9
- Integrated Math 1, Algebra 1 (or higher)
- Physical Education (1 sem)
- Health (1 Sem, may elect to take Sophomore year)
- 2 Elective Credits (may include Biology)
- Freshmen Advisory (.5 credit per year)

**10th Grade** - a minimum of 5.5 credits to be earned (required). (Students must take one semester of Physical Education)

- English 10
- Western Civilization
- Integrated Math 2, Geometry (or higher)
- Physical Education (1 sem)
- 2 Elective Credits (to include 1 credit of science)

**11th Grade** - a minimum of 5.5 credits to be earned (required). (Students must take one semester of Physical Education.)

- English
- U.S. History- American Experience OR
- U.S. History African American Experience (1 sem)
- Area Studies in History (1 sem)
- 3.0 Elective Credits (to include 1 credit of science if not taken Freshmen year)
- .5 Physical Education

**12th Grade** - a minimum of 5.0 credits to be earned (required). (2-1/2 credits each semester, does NOT include work experience credit).

- English
- 4.0 Elective Credits

Continued preparation for the future is extremely important. If college is your choice, remember that colleges are now recommending a strong academic program all four years.

**Note:** Students may not elect to take more than one Physical Education class during their Freshman and Sophomore years.

**Courses Taken Prior to Grade 9**

On occasion, Middle School students enroll in courses offered at the High School. These courses are to allow the student to earn advanced placement in High School. High School courses taken by Middle School students prior to entering 9th grade will not be figured into the GPA, and no High School credit will be given (see exception below).

**Only MMSD summer school courses taken after the completion of the 8th grade** year are considered High School elective credits. They will be recorded on the transcript. Grades will be computed into the GPA.
Drawing & Design I  
ART103  
1/2 Cr  
Elective 9-12  
This is an introductory drawing course emphasizing sound craftsmanship and the study of basic freehand drawing from direct observation. Class topics include: the study of perspective, proportion, composition, and properties of light and shade. This class also introduces students to the elements of art (line, texture, color, shape, value, space and form). Students will investigate how these elements can be manipulated using various principles of design to achieve different effects. Students will explore a variety of drawing media and techniques. Art history and multicultural art traditions will be integrated into the curriculum.

Drawing & Design II  
ART108  
1/2 Cr  
Elective 9-12  
*Prerequisite: Drawing and Design I  
This course builds on skills and concepts introduced in Drawing and Design I. Students will further their observational drawing skills by focusing on the human figure and portrait. Basic color theory and relief printmaking techniques will also be covered along with a variety of media including: charcoal, conte, pastel, watercolor and tempera paint. Continued study of the elements and principles of art, and the development of a sketchbook journal are integral to this course.

2-D & 3-D Design  
ART118  
1/2 Cr  
Elective 9-12  
This foundation course provides an opportunity for students to learn about materials, skills and concepts used in creating two and three-dimensional artworks. A wide range of materials, tools, and techniques will be used in this course. Students will learn observational drawing strategies, color theory, and will explore form and construction. Art history and gallery studies are also integrated into art making units. Visual journals are kept as a way to explore and develop personal style and interests. This course provides an excellent foundation for those students wishing to pursue Ceramics/Sculpture or Art Metal/Glass.

Advanced 2-D Techniques I  
ART207  
1/2 Cr  
Elective 10-12  
*Prerequisite: Drawing and Design II  
This class explores a variety of drawing, painting, printmaking and computer mediated art processes and techniques through teacher directed projects that encourage students to consider subject/content relationships. Students will develop conceptualization skills that will prepare them for working on independent projects. This course includes an in-depth study of 20th century art movements and concepts through slide lectures, videos, internet research, field trips, and guest speakers. Continued sketchbook development is required.

Advanced 2-D Techniques II  
ART208  
1/2 Cr  
Elective 10-12  
*Prerequisite: Advanced 2-D Techniques I  
This class continues the study of concepts and techniques developed in Advanced 2-D Techniques I through teacher directed assignments exploring a variety of media including: charcoal, conte, pastel, watercolor and acrylic paint. Continued emphasis on observational rendering skills and the development of narrative and personal imagery is stressed. Continued sketchbook development is required.

Portfolio Development  
ART307  
1/2 Cr  
Elective 11-12  
*Prerequisite: At least four (4) semesters of art classes in a specific media  
This class is for the advanced art student who is considering attending an art college. Emphasis will be on art portfolio preparation including: sketchbook development, advanced observational drawing strategies, and regular figure drawing sessions. Students will also work to develop their own personal artistic voice, and will learn how to professionally photograph their work, and write and artist statement for a quality portfolio presentation. Representatives from art colleges will give presentations and conduct portfolio reviews for students interested in preparing for careers in art. Student will be offered the opportunity to prepare an AP studio art portfolio.
Art Seminar

*Prerequisite: At least four (4) semesters of art classes in a specific media

Art Seminar is for the advanced art student who is self motivated and has the potential to be productive working with a Individual Contract Based Curriculum. This course is designed to further develop skills through a more in-depth study of various media and techniques of choice by individual artists. Some theme based projects and exhibitions, along with regular individual and group critiques will provide direction for student artists. Representatives from art colleges will give presentations and conduct portfolio reviews for students interested in preparing for careers in art. Students will be offered the opportunity to prepare an AP studio art portfolio.

Ceramics and Sculpture I

*Prerequisite: Ceramics and Sculpture I

This course will introduce students to five main ceramic forming techniques: pinch and pull, coiling, slab building, molding, and the pottery wheel. Emphasis is placed on design and construction of well-crafted, original work. We will also explore the history and philosophy of ceramic arts and sculpture through slide lectures, field trips, and visiting artists. Students are required to keep a sketchbook to document the development of their ideas. Our facility is one of the largest in the country with 1800 square feet, 23 pottery wheels, and numerous hand and power tools.

Ceramics and Sculpture II

*Prerequisite: Ceramics & Sculpture II

This course will build on the experiences and techniques introduced in Ceramics and Sculpture I. Students will have the opportunity to focus on either wheel thrown or hand built ceramics as they work through a series of design problems. Students are encouraged to develop their creativity and craftsmanship through individual involvement with the media to emphasize personal expression and exploration of form, texture, and surface decoration. Students will have the opportunity to experience a variety of firing processes including cone 10 wood firings at MMSD’s MSCR/Hoyt building.

Ceramics and Sculpture III

*Prerequisite: Ceramics & Sculpture III

This course will build on the experiences and techniques introduced in Ceramics & Sculpture II. Students will have the opportunity to focus on either wheel thrown, or hand built ceramics, and will be encouraged to develop a personal style with their work. More extensive investigations into advanced ceramic forming techniques, firing processes, and glaze chemistry will be covered. Students enrolling in this course should have a strong and consistent work ethic and a willingness to complete assignments that demonstrate growth in the ability to conceptualize, problem solve and appropriately apply glaze and surface decoration to enhance and embellish their forms. Students will also be required to assist with basic studio maintenance including: clay recycling and mixing, glaze formulation, kiln loading and unloading. Students will have the opportunity to experience a variety of firing processes including cone 10 wood firings at MMSD’s MSCR/Hoyt facility.

Ceramics and Sculpture IV

*Prerequisite: Ceramics & Sculpture IV

This class is for the advanced ceramics student who has a strong and consistent work ethic, advanced skill in numerous clay forming, decorating and glazing techniques, and the ability to be productive while working independently. Students will continue to develop their wheel and/or hand-built ceramic skills as they research artists and ideas to provide direction for their own work. Some theme based projects and exhibitions, along with regular individual and group critiques will provide direction for student artists. Students will also be required to assist with basic studio maintenance including: clay recycling and mixing, glaze formulation, kiln loading and unloading. Students will have the opportunity to experience a variety of firing processes including cone 10 wood firings at MMSD’s MSCR/Hoyt facility.

3-D Art Seminar

*Prerequisite: Ceramics & Sculpture IV

This class is for the advanced ceramics and sculpture student who is self motivated and has the potential to be productive working with an Individual Contract Based Curriculum. This course is designed to further develop skills through a more in-depth study of ceramic art processes and techniques. Some theme based projects and exhibitions, along with regular individual and group critiques will provide direction for student artists. Advanced students are required to assist with basic studio maintenance including: clay recycling and mixing, glaze formulation, kiln loading and unloading. Students will have the opportunity to experience a variety of firing processes including cone 10 wood firings at MMSD’s MSCR/Hoyt facility.
Art Metals and Glass I  ART413  1/2 Cr  Elective 10-12
This course will provide students with an introductory experience in the design and fabrication of jewelry and sculpture in metal and glass. Emphasis is placed on design and construction of well-crafted, original work using a variety of tools and processes including but not limited to: sawing, filing, piercing, soldering, cold joining, texturing, annealing, polishing, cabochon stone setting, glass mosaics, and flame worked soft glass. Basic studio skills such as proper care of tools and equipment, studio safety procedures and working vocabulary associated with techniques will be emphasized. Guest artists are included along with trips to local galleries and regional museums and shows.

Art Metals and Glass II  ART418  1/2 Cr  Elective 10-12
*Prerequisite: Art Metals and Glass I
This course will provide students with a continuing experience in the design and fabrication of jewelry and sculpture in metal and glass. Students will receive instruction in new techniques such as Tiffany glass techniques (stained glass), fused glass, soft glass bead making, cabochon stone setting, surface treatments, multi-joint soldering, enameling, links and chains, as well as other advanced techniques. An increasing emphasis will be placed on original design and craftsmanship, as well as the science behind a variety of metals and processes.

Art Metals and Glass III  ART427  1/2 Cr  Elective 11-12
*Prerequisite: Art Metals and Glass II
This course will provide students with a continuing experience in the design and fabrication of jewelry and sculpture in metal and glass. Through individual and small group demonstrations and critiques, students are shown many new techniques for their metal and glass work. This course emphasizes construction of utilitarian forms as well as sculpture and jewelry. Students will create hollow forms and learn techniques such as: raising, forging, texturing, and lost wax casting. Advanced design skills and originality will be emphasized as students design a “series” of pieces. Students will be encouraged to find their own style and area of focus in metal or glass, create a series of projects around that focus, and develop a portfolio for admission into college, or into becoming an entrepreneur.

Art Metals and Glass IV  ART428  1/2 Cr  Elective 11-12
*Prerequisite: Art Metals and Glass III
This class is for the advanced metal and glass student who is self motivated and has the potential to be productive working with an Individual Contract Based Curriculum. This course is designed to further develop skills through a more in depth study of art metal and glass processes and techniques. Some theme based projects and exhibitions, along with regular individual and group critiques will provide direction for student artists. Students will have the opportunity to create a piece of work for the Scholastic Art Awards competition, which challenges design and technical skills. Individual work, vision and personal style will be emphasized and careers in metals and glass fields will be explored. Advanced students are required to assist with basic studio maintenance.

Digital Publishing  ART501/502  1 Cr  Elective 10-12
*Prerequisite: Design Illustration I or Digital Imaging and Photography I.
Students will design and construct the Westward Ho yearbook. Students will use Adobe InDesign publishing software in conjunction with Adobe Illustrator and Photoshop to develop artwork and photography for the yearbook. Students should be prepared to spend a significant amount of time outside of class working on the yearbook.

Digital Illustration I  ART503  1/2 Cr  Elective 9-12
Students will use Adobe Illustrator to explore the elements and principles of art and design. Students will develop digital drawing and design skills, focusing on illustration and graphic design. Students will learn about career opportunities in graphic design.

Digital Illustration II  ART513  1/2 Cr  Elective 9-12
*Prerequisite: Digital Illustration I or Design Graphics I
Students will complete more complex assignments using Adobe Illustrator, delving further into the program and into their personal creative vision and critical thinking ability. Students will continue to develop more advanced digital drawing and design skills using Adobe Illustrator. Students will learn to place artwork into Adobe InDesign software, used for publishing.

Digital Illustration III  ART523  1/2 Cr  Elective 10-12
*Prerequisite: Digital Illustration II.
Advanced illustration and graphic design students will continue to develop digital drawing and design skills using Adobe Illustrator and InDesign. Students will compile a digital portfolio of their work in preparation for admission to a 2-year or 4-year college program of study and/or the workforce.
**Digital Photography I**  
ART533  
1/2 Cr  
Elective 9-12  
Students must have their own digital camera (3mp or more). Students will use Adobe Photoshop while learning the fundamentals of photography and composition. Students will use digital imaging techniques to create black and white and color artwork.

**Digital Photography II**  
ART543  
1/2 Cr  
Elective 9-12  
*Prerequisite: Digital Photography I or Design Graphics I*  
Students must have their own digital camera (3mp or more). Students will complete more complex assignments using Adobe Photoshop and other imaging software, delving further into the program, including digital painting as well as black and white and color photography. Students will continue developing their imaging skills, personal vision, and critical thinking ability. Students will learn to place artwork into Adobe InDesign software, used for publishing.

**Digital Photography III**  
ART553  
1/2 Cr  
Elective 11-12  
*Prerequisite: Digital Photography II*  
Students must have their own digital camera (3mp or more). Advanced digital photography students will continue to develop digital imaging skills and create in-depth artwork that reflects their individual artistic expression using Adobe Photoshop and other software. Students will compile a digital portfolio of their work in preparation for admission to a 2-year or 4-year college program of study and/or the workforce.

**Web Design**  
ART568  
1/2 Cr  
Elective 10-12  
*Prerequisite: Digital Illustration I or Digital Imaging and Photography I*  
Students will use Adobe Dreamweaver to create a personal website. All students will create a site that follows both form and function, highlights their accomplishments in art as well as academics, and other personal achievements. Advanced art students may create an online portfolio featuring their artwork.

**Animation**  
ART578  
1/2 Cr  
Elective 10-12  
*Prerequisite: Digital Illustration I or Digital Imaging and Photography I*  
Students will create several animations using Adobe Flash. Students will learn about time-based storytelling as they learn to navigate the program. Students will learn how to draw in Flash and import images from Adobe Illustrator and Photoshop. Students may use sound for animations.

**Independent Study-Art**  
1/2 Cr  
Elective 11-12  
*Prerequisite: Application form required. At least four (4) semesters of art classes and consent of instructor.*  
Independent Study allows students to add another hour of Studio Art. This class is for the advanced art student who is self motivated and has the potential to be productive working with a Individual Contract Based Curriculum. This course is designed to further develop skills through a more in-depth study of various media and techniques of choice by individual artists. **An application needs to be submitted to the independent study committee for consideration by the end of the second week of each semester.**

---

**BUSINESS and MARKETING EDUCATION**

**Students who have taken Keyboarding and Advanced Keyboarding at West are eligible for advanced placement credits at Madison Area Technical College in business programs.**

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Keyboarding</td>
<td>-Keyboarding</td>
<td>-Keyboarding</td>
<td>-Keyboarding</td>
</tr>
<tr>
<td>-Advanced Keyboarding</td>
<td>-Advanced Keyboarding</td>
<td>-Advanced Keyboarding</td>
<td>-Advanced Keyboarding</td>
</tr>
<tr>
<td>-Computer Applications</td>
<td>-Computer Applications</td>
<td>-Computer Applications</td>
<td>-Computer Applications</td>
</tr>
<tr>
<td>-Intro. to Business and Marketing</td>
<td>-Intro. to Business and Marketing</td>
<td>-Intro. to Business and Marketing</td>
<td>-Intro. to Business and Marketing</td>
</tr>
<tr>
<td></td>
<td>-Web-Page Design for Bus./Marketing</td>
<td>-Web-Page Design for Bus./Marketing</td>
<td>-Web-Page Design for Bus./Marketing</td>
</tr>
<tr>
<td></td>
<td>-Money Mgt./Personal Finance</td>
<td>-Money Mgt./Personal Finance</td>
<td>-Money Mgt./Personal Finance</td>
</tr>
<tr>
<td></td>
<td>-Business and Personal Law</td>
<td>-Business and Personal Law</td>
<td>-Business and Personal Law</td>
</tr>
<tr>
<td></td>
<td>-Accounting I</td>
<td>-Accounting I</td>
<td>-Accounting I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Accounting II for Dual Transcripted Credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Keyboarding

**BUS203**  
1/2 Cr  
Elective 9-12  

Do not leave West without good keyboarding skills. This one-semester course is designed to introduce and develop your keyboarding skill and promote the efficient use of the computer keyboard. Students will learn to keyboard reports, letters, outlines, and centering projects. Several up-to-date, exciting programs along with a word processing program will be used during this course. It is strongly suggested that this course be followed by Advanced Keyboarding.

### Advanced Keyboarding

**BUS213**  
1/2 Cr  
Elective 9-12  

*Prerequisite: Keyboarding*

This one-semester course will improve your keyboarding and formatting skills. Several speed- and accuracy-building programs along with a word processing program will be used. The work will include keyboarding tables, more complex reports, advanced letter styles, personal data sheets, and other useful formatting projects. A portfolio/keyboarding reference manual will be created during this semester. In order to develop strong keyboarding skills necessary for today's technology driven world, this course is recommended for students attending college and/or entering the business world.

### Introduction to Business and Marketing

**BUS227**  
1/2 Cr  
Elective 9-10  

It is an exciting time in the Business and Marketing world. This is the perfect course to take to introduce students to the Business and Marketing world as well as the classes offered at West. Through hands-on projects, discussions, guest speakers, and other activities, students will explore how the economy works, as well as types of businesses, interviewing and job seeking skills, and marketing, as well as other business and marketing related topics. Prepare for the future. Take this course!

### Business and Personal Law

**BUS323**  
1/2 Cr  
Elective 10-12  

Students who enjoy learning about trials, discussing the impact of current events on law and want to know more about their rights as individuals should take this course. Students will participate in a variety of interactive and practical activities, such as in-class mock trials, case studies, interpreting contracts, Internet activities, a field trip and guest speakers as part of the process of learning how law, specifically business law, impacts society.

### Computer Applications

**BUS403**  
1/2 Cr  
Elective 9-12  

Don’t leave high school computer illiterate. This one-semester course is designed to introduce and reinforce computer application work in: Windows, Word, Access, PowerPoint, Publisher, and the Internet. The Office 2007 Suite will be used. This is an essential course for becoming comfortable with major computer applications and to prepare for college and/or work experience. Keyboarding in highly recommended before taking this course, but is not a prerequisite.

### Money Management/Personal Finance

**BUS413**  
1/2 Cr  
Elective 10-12  

Personal finance is one of the most useful classes a high school student can take in order to prepare for their future. This one-semester class will teach students: how to prepare themselves for the job market, how taxes impact their lives, how to create and use a budget, how to build wealth, the pros and cons of home ownership versus renting, how credit can be both your best friend and your worst enemy, how financial institutions work, and about the different types of insurance. Students will also learn about investing in stocks, bonds, and mutual funds, as well as how to save money and why it is important to save money. Students who take this class feel good about what they have learned and how it will help them in the future.

### Accounting I

**BUS431/432**  
1 Cr  
Elective 11-12  

This year long course is an introduction to the world of accounting. This is a must have for any student interested in pursuing any business related major or for students who want to start their own business. Every business in our society is impacted by accounting based decisions. In this course, students will have the opportunity to use real-world accounting software, source documents, financial statements, and multimedia to prepare and analyze business transactions. A Wisconsin state-sponsored Youth Apprenticeship program is available in the area of finance.
Accounting II (Dual Transcribed Credit)  BUS451/452  1 Cr  Elective 12
*Prerequisite: Instructor Approval required
This course is designed to help students understand basic accounting principles and procedures. The two major objectives are (1) preparation for a career in an accounting or any business-related field, and (2) preparation for personal uses of accounting in your everyday life. Major concepts include: how to record perpetual business transactions, determine a business profit or loss, prepare financial reports and budgets, and analyze financial statements for personal and business decisions. Students that enroll in this course will be eligible to receive college transcripted credit. A Wisconsin state-sponsored Youth Apprenticeship program is available in the area of finance.

Applied Computer Keyboarding  BUS491/492  1 Cr  Elective 9-12
*Recommended for ESL students, DPI level 1.5-3.5.
Applied Computer Keyboarding is a one-year course which is designed to develop keyboarding skills on a computer keyboard. Students will use proper keyboarding techniques and English grammar concepts while keying a variety of personal and business documents. This is a great class to integrate and reinforce the English language.

Web-Page Design for Business/Marketing  BUS503  1/2 Cr  Elective 10-12
An exciting class!! With technology being a large part of the workplace, web pages have become an essential component of any business operation. Having the understanding of how web pages can reach customers is vital to the success of every business. Students will learn to create and analyze web pages. Students will create personal web pages as well as web pages for local businesses. Macromedia Dreamweaver and Fireworks will be used.

Marketing Courses

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grades 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Marketing &amp; Sales</td>
<td>-Advertising &amp; Display</td>
<td>-Leadership Skills</td>
<td>-Marketing &amp; Sales</td>
</tr>
<tr>
<td>-Advertising &amp; Display</td>
<td>-Leadership Skills</td>
<td>-Store Management</td>
<td>-Advertising &amp; Display</td>
</tr>
<tr>
<td>-Leadership Skills</td>
<td>-Store Management II</td>
<td>-Starting a Business</td>
<td>-Leadership Skills</td>
</tr>
<tr>
<td>-Store Management</td>
<td>-Sports, Hospitality &amp; Entertainment Marketing</td>
<td>-Advanced Marketing</td>
<td>-Marketing Internship</td>
</tr>
</tbody>
</table>

Marketing & Sales  MRK123  1/2 Cr  Elective 9-12
*Prerequisite for other Marketing courses.
Introduce yourself to the exciting world of marketing! Students will learn how products are brought from the idea stage to becoming available on store shelves. Everything from distribution to sales will be explored. Create new products and learn how to market them efficiently. The course includes fun activities such as: developing newspaper ad layouts, creating displays, and analyzing television and radio ads. This hands-on course will provide the basis for a career in marketing. Students who are enrolled in this class can also be members of the DECA Chapter.

Advertising & Display  MRK133  1/2 Cr  Elective 9-12
A "hands on" creative course for 9th-12th grade students with practical and fun activities: developing newspaper ad layouts, creating displays, analyzing television and radio ads as well as looking at the exciting world of advertising and visual merchandising. Students develop creative billboard ads, direct mail brochures and explore media careers with highlights of (1) Analyzing your favorite TV commercials, (2) Creating your own cereal brands, and (3) Working in teams to create displays.
Leadership Skills
MRK143 1/2 Cr Elective 10-12
Leadership is the ability to influence the thinking and actions of people. This class will teach students the skills necessary to be a leader in the community and workplace. Activities will include: leadership trait analysis, group decision making, teamwork, structured meetings, leadership workshops, and community service projects. The following are a sample of the core elements: Becoming a leader, not a follower, How to influence people and make friends, and Learn what traits are essential to becoming a leader.

Store Management
MRK201/202 1 Cr Elective 10-12
*No prerequisites but strongly recommend having one semester or more of Marketing classes.*
Store Management is a full-year course that operates the Moose Head Shed, our school store. Students are expected to work in the school store during resource time 2-3 times per week. Activities include: buying/ordering merchandise, selling, promoting and displaying merchandise, and suggesting new product/service ideas. Good attendance is imperative to keep the store operating. This course is valuable for anyone considering a business career and/or business major in college or technical school. Students will learn by doing in this course!

Store Management II
MRK211/212 1 Cr Elective 11-12
*Prerequisite: Completion of Store Management with an A and consent of instructor.*
Store Management II offers selected students the opportunity to serve as store managers for the school store. Students are responsible for scheduling, training and evaluating employees. They also meet with sales representatives, assist in ordering merchandise, run the store meetings, and keep the accounting records. This is a great experience for a student that plans on a business career or business major in college. Students are expected to work 2-3 shifts per week in the school store completing orders, accounting, scheduling, supervising store operation at noon and in the morning.

Starting A Business
MRK227 1/2 Cr Elective 11-12
Have you thought about starting your own business? Would you like to learn the steps in creating a small business? Write your own business plan and present it to business owners. Learn about developing your business idea, location, marketing, financing, managing people, and legal guidelines. Students will practice business and economic principles in this interactive course that will take them beyond the school building and into the business community. This is a great course for college-bound students pursuing business or marketing or students thinking about opening a business after high school. The course is team taught with community, business, and government leaders through the Business & Education Partnership and Junior Achievement.

Sports, Hospitality & Entertainment Marketing
MRK253 1/2 Cr Elective 11-12
*Prerequisite: Marketing & Sales (MRK123)*
Course topics include: corporate sponsorship, event promotions, career opportunities, and legal aspects involved with the industries. Classroom instruction will be reinforced through the use of guest speakers, case studies, field trips, and in-school promotional projects. A basic understanding of marketing is necessary to enroll in this course (see above prerequisite).

Advanced Marketing
MRK301/302 1 Cr Elective 12
*Prerequisite: Marketing and Sales (MRK123)*
Advanced Marketing is an extension of the Marketing and Sales course. Consumer behavior, marketing research, management strategies, employability skills, development of marketing plans, and other advanced marketing concepts will be examined during this one-year course. Advanced Marketing can be taken in conjunction with the course listed below called Marketing Internship (MRK310) to earn two credits. Students completing this course will earn advanced standing at MATC.

Marketing Internship
MRK311/312 1 Cr Elective 12
*Prerequisite: Students must complete a program application, interview, and obtain a letter of reference from one other teacher.*
Get paid, receive credit and gain experience. Learn while you earn by linking your classroom knowledge to paid employment in a business environment in the Madison area. Build leadership skills while applying classroom knowledge in a real business setting. Students may be employed in areas relating to Accounting, Business Support Services, Finance, Information Technology, Law, Marketing, and Real Estate. These are employment opportunities that students would have difficulty securing on their own. At the time of course completion and 180 on the job hours, students will be awarded a State Certified Employability Skills Certificate. A great resume enhancer and conversation piece during job interviews.
**COMPUTER SCIENCE**

**Introduction to Computer Programming**  
CMP127/128  
1/2 Cr  
Elective 10-12  
*Prerequisite: Completion of Algebra I with C or better*

This course is a one-semester course focusing on beginning computer programming, using the languages of Scheme and/or Java. It will be necessary for students to solve problems by writing a plan, changing the plan into a computer program and using the program to obtain desired results.

**Computer Science A - AP**  
CMP211/212  
1 Cr  
Elective 11-12  
*Prerequisite: Completion of Algebra 2-Trig or Intro to Computer Programming or consent of instructor*

This is a two-semester course in computer programming that prepares students for computer science work in college. The topics covered in the course are recommended by the College Board’s Advanced Placement Computer Science curriculum and include algorithms, object-oriented programming, one and two-dimensional arrays, and lists. As directed by the College Board, the course is taught in the Java programming language. Students who are successful in this course may take the Advanced Placement exam in May.

**ENGLISH**

Students are required to earn four credits of English for graduation. Ninth and tenth grade English is required of all students. In grades 11 and 12, students are given a choice of non-sequential semester electives, each providing one-half credit towards graduation. College preparatory students, however, should check with the colleges of their choice for verification on what courses are acceptable for college admission; i.e., some colleges might not accept courses in such areas as theater or media for admission.

Students entering grades 10-12 may select more than one English course in a semester but no more than 1.5 credits of English per year. Elective courses may not be offered both semesters. Enrollment will be by grade level with priority given to seniors, then juniors, then sophomores. The number of sections of a course is dependent on student selection and teacher allocation.

**English 9**  
ENG101/102  
1 Cr  
Required 9  

Ninth grade English includes work on the fundamentals of composition, reading and literary analysis skills, and oral communication. Writing assignments will focus first on effective paragraph development, then on longer themes, if appropriate. Sentence structure, variety, and accuracy in vocabulary, punctuation, and appropriateness of language will be emphasized. The Literature that will be covered, varies in length and genre: short stories, poetry, drama, and novels. Titles may include: Of Mice and Men, To Kill a Mockingbird, Inherit the Wind, The Odyssey, Romeo and Juliet, Night, Call of the Wild, and others at the teacher's discretion. Within the classroom, both remedial and enrichment activities will be provided.

**English 10** (Embedded Honors option available)  
ENG201/202  
1 Cr  
Required 10  

Students will explore the conception of the American Dream and their own pursuits for happiness. Beginning with the wisdom of America’s forefathers buttressed by the timeless struggle of the immigrant, the course will examine the viability of the dream. Selections will be taken from writers such as Harriet Jacobs, Frederick Douglas, Horatio Alger, Ben Franklin, John Steinbeck, and Pam Muñoz Ryan. Students will have the opportunity to read some of the following titles: Black Boy, There Are No Children Here, The Great Gatsby, The Death of a Salesman, and The Color Purple. The second semester will include a research project along with a thematic study of identity and justice in the works of Capote, Salinger, Trumbo, Bradbury, King, and Golding. In early spring, students will participate in a Shakespeare festival after having read A Midsummer Night’s Dream, Othello or Julius Caesar.
# English Electives for Grades 10-12

Students are to obtain the recommendation of their former English teacher for elective courses. All of the following are semester courses.

### Writing Courses:
- Writing for Publication
- Creative Writing Workshop
- Advanced Writing Workshop (Honors)

### Literature Courses:
- Contemporary Literature
- The Bible as Literature
- Science Fiction
- Dramatic Literature
- Rising Up
- Shakespeare (Honors)
- Survey of American Literature (Honors)
- Trends in 20th Century Literature (Honors)
- English Literature (Honors)
- European Literature (Honors)

### Communication Arts Courses:
- Public Speaking
- Mass Media*
- Film Study
- Theater Arts I*
- Theater Arts II (Honors)*
- Theater Arts III
- Multico

### Grammar Course:
- Language Use and Grammar

*UW-Madison and many other colleges accept only a ½ credit of Communication Arts courses toward their admissions requirements.

## Writing for Publication  ENG307  1/2 Cr Elective 10-12
Learning to write for a publication provides opportunities to develop a variety of useful skills: speed, clarity, conciseness in writing, confidence in meeting and talking with strangers, critical thinking, and realistic long-range time management. Students are encouraged to write for the school newspaper, but it is not required. Students will study news, feature, sports and editorial writing, interview techniques, editing skills, current events, basic photography, and page design. Students selecting this course should have at least average spelling and grammar skills. First semester course.

## Language, Usage & Grammar  ENG327/328  1/2 Cr Elective 10-12
*Recommendation: Good understanding of basic grammar
This course is NOT a remedial course or an introduction to the language for foreign students. The first half of the curriculum includes an in-depth study of English grammar and usage in order to improve correctness and style in writing and speech, as well as verbal scores on SATs and ACTs. The course also includes the study of various aspects of linguistics and the history and development of the English language. Vocabulary study may be included. Several papers may be required.

## Advanced Writing Workshop (Honors)  ENG403  1/2 Cr Elective 11-12
*Recommendation: Successful Completion of an Honors Level Literature course
This is a course for students who are already competent at writing a well organized paper, who are committed to writing, and who are interested in developing their writing styles. Students will write complex expository papers incorporating personal narrative, argumentation, research and literary criticism. Special emphasis is given to writing personal essays, poetry explication, impromptu essay preparation, and the language, literature and composition AP exams. The course is recommended only for those who enjoy reading and writing about complex essays, novels, short stories and poetry. The workshop demands that students learn sophisticated, varied, and appropriate writing styles.

## Creative Writing Workshop  ENG413  1/2 Cr Elective 11-12
The student who chooses this course should be a competent writer and be strongly committed to writing. This course offers the student the opportunity to explore writing short stories, poetry and creative non-fiction. In addition to major assignments, there will be many short writing exercises and the study of models. Students choosing this course must be able to handle long-term assignments and participate in the critical process. It is advisable for the student to have successfully completed English 9 and 10 before enrolling in this course.
### Contemporary Literature

**ENG527/528**  
1/2 Cr  
Elective 10-12  
In this course, students will be exposed to themes in literature which are relevant to today’s young adults: themes of personal relationships, survival, and identity. In addition, students will develop awareness of their own cultural heritage as they examine the roles of culture, privilege, and of power in society. Students will discuss sensitive topics such as race, gender, class and sexuality. Assignments may include, but are not limited to, literary analysis, presentations/performance, formal essays, and group discussion. Selections by authors representing a broad range of culture will be studied and may include: *Montana 1948, Our Town, Angela’s Ashes, One Thousand Pieces of Gold, House on Mango Street, Am I Blue, Breaking Ice, Grass Dancer, The Laramie Project, Ellen Foster, and the Secret Life of Bees.*

### Rising Up

**ENG633**  
1/2 Cr  
Elective 10-12  
This intermediate level course will explore literature that focuses on marginalized voices struggling to rise up against established authority. Students will write about their own power and identity struggles as we examine stories of rebellion, ranging from the Beat generation’s rebels without a cause to Che Gueverra’s incipient revolutionary in *Motorcycle Diaries.* Student work will include personal narratives, literary and lyrical analyses, comparisons of artists, and personal creative expression through poetry and spoken word. The course will have a central novel (Toni Morrison’s *The Bluest Eye* or Aravind Adiga’s *White Tiger*) as well as an independent reading novel, but it will also utilize a wide variety of genres (film, graphic novel, short story, poetry, song lyrics) to explore the issues common to Feminism, Hip-hip, and other instances of rising up: as E.E. Cummings once said, “To be nobody but yourself in a world that’s doing its best to make you somebody else is to fight the hardest battle you are ever going to fight.”

### Dramatic Literature

**ENG643**  
1/2 Cr  
Elective 10-12  
This intermediate literature course centers on reading plays spanning the history of theater. Students work together on presentations and activities that aid in bringing scripts to life. Assignments include papers, projects and promptbooks, units on mask making, comedy scene writing, social issues and improvisation. Students will read six or seven plays throughout the semester. Play titles and movements may include *Oedipus Rex, Dr. Faustus, The Taming of the Shrew, The Importance of Being Earnest, Fences Top Girls, Commedia dell’arte, Dadaism and Performance Art.* The class attends performance field trips during the semester.

### The Bible as Literature

**ENG653**  
1/2 Cr  
Elective 10-12  
The Bible is fundamental to Western thought. This course is designed to give the student knowledge of, not faith in, some parts of the Bible by reading it as literature and understanding its cultural context. Major emphasis will be on the Old Testament with a smaller unit on the New Testament. Students will become familiar with some of the stories, characters, themes and with vocabulary and biblical allusions. Students will explore literary forms, various editions, and interpretation. There will be several papers and exams during the course of the semester. Students will provide their own Bible. First semester course.

### Science Fiction

**ENG668**  
1/2 Cr  
Elective 10-12  
This is an intermediate level literature course for students who enjoy or want to learn more about science fiction. Students will primarily read Eric Rabkin’s *Science Fiction: A Historical Anthology* and several short stories from various other anthologies, tracing science fiction's historical development, its various types and its commentary on humanity and society. The course will examine science-based essays as well as some artwork which comments on science’s role in society. Additionally, students may view one or more films (*Bladerunner and/or The Matrix*). Students will be exposed to several authors, including DeBergerac, Swift, Voltaire, Mary Shelley, Poe, Hawthorne, Wells, Gernsback, Asimov, Bradbury, Heinlein, Einstein, Sagan, Gould, Dick, Budnitz, Garner, Crichton and others. Tests, quizzes for nearly all reading assignments, and several papers are required. Second semester course.

### Film Study

**ENG727/728**  
1/2 Cr  
Elective 10-12  
In this course, students will expand their awareness of film as an art form. The activities include studying several short films, five or more feature length films, writing compositions of film analysis, reading a text, taking quizzes and exams, and completing a major semester project. The course will concentrate on American film history, techniques, structure, censorship, symbolism, racism, and sexism. The course is intended for students interested in serious film analysis.
**Trends in 20th Century Literature**  
ENG807/808  
1/2 Cr  
Elective 10-12  
This is a course for mature students who wish to read the works of significant 20th Century authors. Students will study character types, themes-war, disillusion, modernism, existentialism, feminism-and literary theories. The course will offer a variety of literary genres: short stories, novels, poetry and drama. Students may explore authors from the following: Kafka, Camus, Beauvoir, Vonnegut, Angelou, Plath, Kesey, Beckett, Morrison, Naylor, Kennedy and Penn Warren. The course includes examinations and critical essays.

**Survey of American Literature (Honors)**  
ENG817/818  
1/2 Cr  
Elective 11-12  
This course is a study of works by American authors, from the colonial to the modern. Students will read, discuss and write about selections from the Puritans, Nineteenth and Twentieth century poets, novelists and short story writers. Possible selections include: The Crucible, The Scarlet Letter, Huckleberry Finn and A Farewell to Arms, as well as poetry by Poe, Dickinson, Whitman, Hughes and Eliot, and short stories by Hemingway, Faulkner, O’Connor, Chesnutt and Dunbar.

**English Literature (Honors)**  
ENG827  
1/2 Cr  
Elective 11-12  
This course is a study of works by major English authors spanning from Anglo-Saxon times to the present. It is designed for students who are interested in the familiar classics of English literature and is recommended for college-bound students. The course includes drama, poetry, and novels. In addition to examinations, students will write numerous critical papers. Selections may include Beowulf, The Canterbury Tales, Macbeth, Pride and Prejudice, Paradise Lost, Renaissance poetry, Neoclassical poets, Romantic poetry, 20th Century short selections and some Victorian poets. First semester course.

**Shakespeare (Honors)**  
ENG837  
1/2 Cr  
Elective 11-12  
This course chronologically surveys a range of Shakespeare’s Sonnets and a combination of Richard III, Henry IV, Twelfth Night, Hamlet, King Lear and The Tempest. Students who enjoy mastering complex ideas and literature will enjoy studying dramatic structure, character development, poetic technique, socio-historical and cultural context of these works, as well as the influences on other literature, and the deep expression of the greatest human emotions.

**European Literature (Honors)**  
ENG848  
1/2 Cr  
Elective 11-12  
The student who chooses this course must have an interest in traditional literature and be able to read with insight. The purpose of this course is to introduce the student to great European literature in translation. The course is structured to develop analytical and critical thinking skills, both in a collaborative setting and through independent activities. Selections may include: Sophocles, Anouilh, Ibsen, Crime and Punishment, Madame Bovary, Faust, and novellas by Kafka and Mann. Second semester course.

**Public Speaking**  
ENG913  
1/2 Cr  
Elective 10-12  
This speech course will help students learn how to organize their thoughts and speak clearly in both informal and formal presentations. While some of the speeches are delivered in an impromptu or casual style, most are carefully researched and prepared. Students will have experience giving many different types of speeches to their classmates. The teacher will make careful critiques of the speeches and will hold conferences with students regarding the speeches performed during the semester. As a result of taking Public Speaking, students improve their articulation, poise, eye contact, gestures, organization of ideas, etc. Second semester course.

**Theater Arts I**  
ENG927/928  
1/2 Cr  
Elective 10-12  
This introductory course reviews and consolidates student experiences in drama and develops basic movement and oral skills. The emphasis is on the process of working in groups, presenting ideas orally and dramatically, and learning techniques for more theater work. During the semester students may be required to attend two plays on their own time. Theater Arts I is a prerequisite to Theater II.

**Theater Arts II (Honors)**  
ENG937/938  
1/2 Cr  
Elective 11-12  
*Prerequisite: Theater I  
This is an advanced script analysis and acting class. It requires thirty pages of papers of a reflective nature, weekly journals plus a twenty five page script analysis. In addition, students read five to seven plays and two textbooks on acting. Students perform two monologues and a scene with one or more partners. The class attends at least two plays outside of class. Students are also required to work a minimum of ten hours on various crews for main stage productions.
**Mass Media**
ENG943 1/2 Cr Elective 10-12
The goal of this course is to help students become responsible consumers of the mass media by critically examining television, radio, film and advertising. Students will study the operation of these media, the effect the media has on them as consumers, and the effect consumers can, or should have, on the media. Papers on these topics are required. Students will also learn the basics of video production and editing through projects such as narratives, documentaries, public service announcements, and/or news stories. Guest speakers in local media industries are invited to the class.

**Multico**
ENG957 1 Cr Elective 10-12
*Prerequisite: By teacher selection only.
MULTICO is a company of West High School students chosen by the instructor to reflect the diverse ethnic and racial population of Madison's schools. MULTICO writes and performs a series of short sketches that highlight race, gender, sexuality and conflict. The group tours Elementary and Middle Schools with an original thirty minute production focusing on the concerns and experiences of children and adolescents in a multicultural, multilingual urban environment. MULTICO is funded by West High’s Regent Drama Club and Friends of West Drama, as well as the MMSD. MULTICO provides younger children with role models from their own and other racial and ethnic groups who are working together, creating together, having fun together and performing. MULTICO meets the first two periods during first semester only.

**Theater Arts III**
ENG958 1/2Cr Elective 12
*Prerequisite: Successful completion of Theater II (Honors)
This course focuses on directing. Each student will direct a one-act play for Fine Arts Week in May. Students will work on script analysis, character development, acting techniques and read articles written by the people who created those techniques.

**Readings** include: The Great Acting Teachers and Their Methods by Richard Brestoff, On Acting by Sanford Meisner, as well as a large number of one act plays and 4-5 full length plays that the class will study or see performed.

**Performances**: The class will attend three plays. Students will write a critique of each, concentrating on particular aspects of theater.

---

**FAMILY AND CONSUMER SCIENCES**

**Culinary Basics**
FCS103 1/2 Cr Elective 9-12
This course is the first in a series of three culinary classes. If you want to know why your cake did not turn out right, how to cook vegetables so that people will eat them, or how to cook food that doesn’t come out of a box or can, then this is the course for you! In this class, you will practice basic food preparation techniques in order to turn out tasty “good for you” food. Be prepared to work in small groups, taste your products, meet new people and expand your food and nutrition knowledge.

**Chef II**
FCS113 1/2 Cr Elective 9-12
*Prerequisite: Successful completion of Culinary Basics
Put your Chef skills to work! Which food color is most appealing? How does the dining atmosphere affect appetite? What happens if there is not enough Vitamin A in the diet? Explore human health and psychology as it relates to food. You will also learn specialized food preparation techniques. Join us for topics such as: entertaining, cake decorating, regional cuisines, delicious food combinations and more. Career exploration and decisions such as meal planning, food costs and budgeting are included throughout the semester.

**International Cuisine**
FCS128 1/2 Cr Elective 10-12
*Prerequisite: Successful completion of Culinary Basics and Chef II or Intro to Hospitality & Culinary
Expand your culinary horizons. Explore unique world cuisine. Trifle, homemade pasta, Jamaican jerk chicken and samosas are just a few of the foods that have been prepared in the past. You will build on the skills covered in Chef and Chef II. Minimal review will occur with emphasis on new and more complex techniques. If you like to cook, are considering a career in the culinary field, have an adventurous spirit, and like to work in small groups, this is the course for you!
**Gourmet Chef I/ProStart**
FCS131/132  1Cr  Elective 10-12

*Prerequisite: None*

Are you considering a career in the restaurant or food industry? ProStart is an initiative of the National Restaurant Association Educational Foundation. This course will allow students to explore careers in hospitality, tourism and much more. Students may attain ServSafe certification, which is required by local governments and health departments to promote food safety throughout the industry. Prepare a restaurant-style meal for selected customers and participate in food service catering. Make appetizing food that looks and tastes delicious! Whether you’re looking to enter the job market right after high school or plan to attend college, be part of this career building program.

**Health Sciences Occupations**
FCS217  1/2 Cr  Elective 10-12

Health Sciences Occupations is designed to familiarize you with medical terminology and body systems using Anatomy in Clay. Students will also explore ethical and legal health care issues. Students completing this course with a “B” will receive advanced standing in Madison Area Technical College’s Medical Terminology course. Students are invited to participate in Health Occupations Students of American Club activities, community service, and competitive state and national events.

**Medical Terminology for Transcripted Credit**
FCS223  1/2 Cr  Elective 11-12

*Prerequisite: Grade of A or B in Biology or Health Science Occupations  
*Fee: $60 (textbook, workbook and CD-ROM)*

If you are interested in a career as a medical translator, medical transcriptionist, nurse, physician’s assistant, physician or any medical/health-related career this course is for you. Students will gain knowledge of terminology, vocabulary and language used in health-related careers. Students will practice formation, analysis, and reconstruction of terms. There is an emphasis on spelling, definition, and pronunciation. The class is an introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems related to health careers. Students are invited to participate in Health Occupations Students of America (HOSA) Club activities, community service, and competitive state and national events.

*Transcripted credit courses earn high school and technical college credit and are dependent upon MMSD and a Wisconsin technical college annually reaching and fulfilling an agreement on course curriculum, teacher requirements, textbooks, etc. Students will generally know in the first quarter whether transcripted credit is planned to be available for students earning a C or better in the course.

**Additional courses offered in Health Sciences at schools other than West. (See your counselor)**
- **Nursing Assistant**  FCS250  .75 credit  Students 16 yrs and above  East, LaFollette, Memorial  
  Lab fee $25  Prerequisite: Successful completion of Health Science Occupations or instructor signature

  This course is team taught by a vocationally certified teacher and a registered nurse. Students learn and apply care giving skills in lab and professional settings. Students seeking employment in any health care field will find this a valuable first step. Nursing Assistant is a pre-requisite to all Wisconsin Technical College System nursing programs and highly regarded in 4-year college admissions. Units of study and skills include: human development, infection control, patient transfer, health and disease, personal care and hygiene, nutrition, and special care.

  To meet certification requirements, students must complete clinical experiences in a local health care agency arranged by the teacher, maintain a grade of 75% or better, and meet attendance requirements. The high school is not responsible for transportation. A medical checkup, TB skin tests, successful background check and $115 certification test fee are required. Class meets for additional hours of lab and clinical time on weekends, evenings, and/or breaks.
**Family Psychology**  
FCS417  
1/2 Cr  
Elective 10-12

This course encourages the student to look at their own personal development and the impact of family relationships on personal growth and development. The class begins by investigating the developing infant brain, exploring parenting roles and styles, and the impact of extended family, friends and community resources upon family relationships and the growing and developing child. Also investigated are: personal choices and their impact upon self and family including: communication, sexuality, and current family issues. Students will use Anatomy in Clay to construct a human brain and parts of the reproductive system as well as have the choice of a parenting research project or the infant simulator, Real Care BabyPlus (computerized), which cries out loud!

**Passing this course with a “C” or better is a required prerequisite for students wishing to receive the Assistant Child Care Teacher (ACCT) certification from the state of Wisconsin.**

This certification will gain you better access to a full or part-time position in a day care center, as a nanny or au pair (if you are interested in improving your foreign language skills, travel, getting paid, pediatric medicine, social work, etc…)

---

**Child Development II**  
FCS418  
1/2 Cr  
Elective 11-12

*Prerequisite: Successful completion of Family Psychology with a “C” or better and be at least 17 years old making student eligible for the ACCT and Infant/Toddler Certifications.

In this class, students will increase their knowledge of child development, design the West’s Little Regents Preschool classroom environment including changing it to reflect the weekly themes. Students will study child development from the ages of birth to five. Students will increase their knowledge of lesson planning, teaching, observation, positive guidance, and conflict resolution strategies. Students will then become a teacher in a six week program right here at West for children in the Madison community. It is a challenging and enjoyable class for anyone who might like to work with children in a daycare, nanny or au pair setting, pediatric medicine, or social work. Students completing this course with a “B” are eligible to receive advanced standing in Madison Area Technical College’s Child Care course.

**Assistant Child Care Teacher (ACCT) and Infant Toddler Certifications** are issued by the state of Wisconsin, and is required for employment at preschools in this state. Students must have an interest in the childcare industry or in a professional or technical career involving children. Students should meet the physical and emotional health requirements for employment. First Aid and CPR training are strongly recommended, but not required for student’s wishing to seek this certification.

---

**Child Development**  
FCS428  
1/2 Cr  
Elective 11-12

*Prerequisite: Successful completion of Family Psychology.  
**This class is designed for students who are not seeking ACCT certification.

Join this class to participate in West’s Little Regents preschool program. Students will study child development from the ages of birth to five. Students will also learn planning, teaching, positive guidance and conflict resolution strategies. Students will become a teacher in a six week program right here at West for children in the Madison community. It is a challenging and enjoyable class for anyone who enjoys children

---

**FOREIGN LANGUAGE**

**French I**  
FOR111/112  
1 Cr  
Elective 9-12

French I begins with a strong emphasis on speaking, reading, writing, and understanding. We use dialogues to involve students in simple conversation. Tapes are used to hear native speakers and to improve accent and intonation. In each chapter, short cultural selections about French people will introduce grammar, reading, and writing projects.

Since the introductory level of a foreign language is the foundation for all succeeding levels, the West High Foreign Language Department requires that a student pass this level with a grade of D or better before the student may proceed to level II. In the event that a student receives a grade of F the first semester of the introductory level, he/she may not continue that language study second semester.
French II
FOR121/122  1 Cr  Elective 9-12
*Prerequisite: Successful completion of French I
Second year French expands the skills developed in French I or in the equivalent Middle School program. Previously learned grammar structures are reviewed at the beginning of the year. The emphasis for the remainder of the year is vocabulary building and the basic verb tenses, pronouns, and agreements. While reading and writing practice increase significantly at this level, a large part of the curriculum continues to emphasize listening comprehension and oral work. The class is conducted in French. The year ends with students reading an adaptation of a major French literary work.

French III
FOR131/132  1 Cr  Elective 10-12
*Prerequisite: Successful completion of French II
This course continues the development of student ability to comprehend, speak, read and write French. The objectives are attained through the study of French history and culture. A grammar review plus further study of grammar allows the student to express more advanced thoughts in writing and in oral work. Class discussions and activities are conducted only in French so that the students will continue to improve their oral comprehension and speaking ability. The year ends with students reading a short novel in French.

French IV
FOR141/142  1 Cr  Elective 11-12
*Prerequisite: Successful completion of French III
This course is designed to further develop communication proficiency in French through speech, listening, reading and writing. Basic grammar is reviewed and expanded upon. Speaking and listening practices will be an important part of the course with the use of tapes, videos and films. Readings include a variety of types of texts, from magazines and newspaper articles to literary works. French IV is conducted entirely in French.

French Language AP
FOR151/152  1 Cr  Elective 12
*Prerequisite: Successful completion of French IV
This year of study continues the approach defined in French IV and gives the option of taking the advanced placement exam in language for university credit and placement. Class time focuses on group discussions of readings and interactive communication activities. Several pieces of literature (plays, poems and novels) will be read in order to develop skills in reading and textual analysis. Grammatical accuracy, articulation and organization of ideas will be stressed both in writing and verbally. The class is conducted entirely in French.

German I
FOR211/212  1 Cr  Elective 9-12
German I is an introduction to the language and culture of the German speaking countries. Emphasis is placed on listening to spoken German and learning to speak with simple terms. German grammar, some reading and a small amount of writing will be taught toward the goal of establishing beginning level proficiency in the language. Alles Gute, Deutsch Plus, and the Deutsch Aktuell video series as well as a variety of additional resources and activities are used to emphasize the audio and oral approach to language learning and proficiency.

German II
FOR221/222  1 Cr  Elective 10-12
*Prerequisite: Successful completion of German I
German II is an advanced beginner level course exploring the language and cultures of the German speaking countries. Students will strengthen their communication competency. The structure and essentials learned in German I are reviewed and the remaining basic grammar is covered. More emphasis is placed on reading and writing than in German I. Films, computer software, the internet, games and numerous activities will connect students to the German speaking world. Beginning in German II, students are invited to participate in a month-long academic exchange in Germany.

German III/IV
FOR231/232, FOR241/242  1 Cr  Elective 11-12
*Prerequisite: German III - Successful completion of German II; German IV – Successful completion of German III
Students will become more autonomous with speaking and writing German, while developing even greater proficiency with German oral and reading comprehension. This level familiarizes students with modern and classic poetry and short stories, past and present contributions in science, history and the arts. Activities include peer activities, skits, videos, pair work, various projects and presentations. Present day German is brought to life through the study and discussions of the environment, the European community, social problems, health, media and technology. The curriculum will vary year to year to accommodate this combined level course.
Latin I
FOR311/312  1 Cr  Elective 9-12
In the first year of Latin, students develop the ability to read Latin through a variety of stories based on classical mythology and ancient history. Through readings and class discussions, students become aware of Latin grammar, vocabulary and consequently learn more about the English language. Videos and classroom activities expose students to the Ancient World: history, daily life, mythology, architecture, etc. Students will produce a portfolio of projects based on geography, mythology, history, grammar, translation and composition.

Latin II
FOR321/322  1 Cr  Elective 9-12
*Prerequisite: Successful completion of Latin I
Students continue to develop their mastery of more complex Latin by reading real Latin authors such as: Daedalus and Icarus, Pyramus and Thisbe from Ovid, Cupid and Psyche by Apuleius, the account of the Druids from Caesar’s *Gallic Wars*, biographical accounts from Suetonius and Eutropius. Students continue their study of the Ancient World via mythology, history, architecture, daily life, etc. Students will continue with the portfolio process, producing projects that illustrate their learning.

Latin III/IV/V
FOR331/332, FOR341/342, FOR351/352  1 Cr  Elective 10-12
*Prerequisite: Latin III – Successful completion of Latin II; Latin IV – Successful completion of Latin III; Latin V – Successful completion of Latin IV
Advanced Latin is on a three year rotation: prose, poetry and drama. When studying prose, students will read a variety of authors, e.g. Cicero, Sallust, Caesar, Livy, Pliny the Younger. Poetry will consist of selections from Vergil’s *Aeneid*, and Ovid’s *Metamorphoses*. When studying drama, students will read the *Menaechmi* by Plautus (Shakespeare’s *Comedy of Errors*). Advanced Latin is also a portfolio based curriculum, where students produce a portfolio of projects timed throughout the year.

Japanese I
FOR411/412  1 Cr  Elective 9-12
In Japanese I, students will develop reading, writing, listening and speaking skills in Japanese with the goal of establishing beginning level proficiency in the language. Study of the cultural context in which Japanese is used will facilitate awareness of how to use the language meaningfully when interacting with native speakers. The emphasis, throughout the Japanese program, will be effective and meaningful communication, or stated simply, what the students can accomplish or do with the language. Upon completion of the first year Japanese, students will have a working knowledge of Hiragana, Katakana and 50 plus Kanji (Chinese characters). Topics of study include: Personal Interests, Family & Friends, Shopping, Daily Routines, School Life, Travel and Transportation, and the Environment. Japanese will be used extensively in class.

Japanese II
FOR421/422  1 Cr  Elective 10-12
*Prerequisite: Successful completion of Japanese I
In Japanese II, students will strengthen their communication competency in Japanese. The continued study and application of the Japanese language and cultural concepts will be approached within a variety of thematic contexts. Topics of study include: Health & Lifestyles, Home & Community, Education & Careers, and Annual Events. Study of Japanese orthography (writing system) will take place through contextual use within each theme. Students will use Japanese to communicate ideas, intentions, experiences, and feelings.

Japanese III & IV
FOR431/432, FOR441/442  1 Cr  Elective 11-12
*Prerequisite: Japanese III – Successful completion of Japanese II; Japanese IV – Successful completion of Japanese III
Throughout this intermediate level course, students will become more autonomous with their language use. Project oriented activities will enable students to explore areas of personal interest within a variety of themes. Interpreting written text and expressing ideas more freely through writing, will be given greater attention at this level. Students will be asked to keep a journal, in Japanese, to demonstrate and assess their progress with the written language. Students will continue to develop speaking and listening skills by conducting peer interviews, engaging in debates, giving oral presentations, and participating in role-play activities. Topics of study include: Life Histories, Journey to Japan, Means of Communication, Seasonal Events and Holidays, Rites of Passage, Leisure & Free Time, Education, and The Future. Curriculum will vary year to year to accommodate this combined level course.
Spanish I  FOR511/512  1 Cr  Elective 9-12
Basic skills needed for everyday Spanish are emphasized in Spanish I. One on one conversation with the teacher and among classmates, translation activities and dialogues teach the student how to listen, speak, read and write. Foreign language study skills, which will be essential in the intermediate and advanced levels, are emphasized. Students learn how to acquire vocabulary and new grammatical structures and how to take notes in Spanish and organize a notebook. Videos and current reading materials are used to acquaint students with the culture of the many Spanish speaking peoples. Text and Workbook: *En Español*, McDouglas Littell/Houghton Mifflin

Because the introductory level of a foreign language is the foundation for all succeeding levels, the West High Foreign Language Department requires that a student pass this level with a grade of D or better before the student may proceed to level II. In the event that a student receives a grade of F the first semester of the introductory level, he/she may not continue that language study second semester.

Spanish I Advanced  FOR515/516  1 Cr  Elective 9-12
*Prerequisite: This course is intended only for students who had previous experience with the language.
The combination of Spanish 1 and Spanish 1A does not meet the college admissions requirement of two (2) years of a foreign language. The four basic skills of listening, speaking, reading, and writing will be emphasized with special attention to grammar and study skills.

Because the introductory level of a foreign language is the foundation for all succeeding levels, the West High Language Department requires that a student pass this level with a grade of D or better before the student may proceed to level II. In the event that a student receives a grade of F the first semester of the introductory level, he/she may not continue that language study second semester.

Spanish II  FOR521/522  1 Cr  Elective 9-12
*Prerequisite: Successful completion of Spanish 1 or Spanish IA
Spanish II is designed to accommodate students who have successfully completed Spanish I or Spanish I Advanced, or the equivalent Middle School preparation. The oral aspect of the course is developed through the extensive use of Spanish in the classroom as well as CDs, DVDs and films. Special attention is given to contemporary expression through reading and informal discussions of culture. The class is **conducted in Spanish 80% of the time.**

Spanish III  FOR531/532  1 Cr  Elective 10-12
*Prerequisite: Successful completion of Spanish II
The emphasis in the third level of Spanish is three fold. The grammar focus is on mastery of all the verb tenses and moods. The literary component features short stories, poetry, a play and a novel. The cultural emphasis focuses partly on the history of the Hispanic world and partly on contemporary topics of interest. In all three areas, students practice their oral skills through class discussions, dramatizations and presentations, and practice their written skills through the writing of skits and essays. The class is **conducted entirely in Spanish.**
**Spanish for Native Speakers**

*FOR535/536* ½ Cr Elective 10-12

Este curso es un curso de un semestre diseñado para los hablantes nativos de español, que tienen niveles variados de exposición formal al castellano. El curso está diseñado para superar los diversos problemas de aprendizaje de los estudiantes que crecieron hablando español en casa, pero quienes han tenido estudio formal mínimo de la lengua. El contenido del curso acentúa la transición de lo familiar a un manejo más formal del castellano mientras que examina no solamente lo lingüístico pero también lo socio-cultural, para dar un mejor aprecio de la herencia latina del estudiante. Incluye una revisión cuidadosa de las reglas de la gramática y la ortografía del castellano y también una breve examinación de la historia de la lengua española. Los estudiantes leerán la literatura de autores españoles y latinoamericanos bien conocidos, darán presentaciones orales, escribirán ensayos breves y largos con un énfasis especial dado a ciertas formas gramaticales que suelen presentar dificultades a los hablantes nativos de español, y participarán en discusiones basadas en investigaciones individuales y de la clase.

This course is a semester course designed for native speakers of Spanish, who have varying degrees of formal exposure to Spanish. The course is designed to overcome the different language-learning problems of students who grew up speaking Spanish at home, but who have had minimal formal study of the language. Course content emphasizes the transition from colloquial to a more formal command of Spanish while examining not only linguistic but also socio-cultural issues, bringing about a stronger appreciation of the student’s Latino heritage. It includes a thorough review of grammar rules and the orthography of Spanish and a brief examination of the history of the Spanish language. Students will read literature by well-known Spanish and Latin-American authors, give oral presentations, write short and long essays with special emphasis given to certain grammatical forms that tend to present difficulties to native speakers, and participate in discussions based on individual research and class topics.

**Spanish IV**

*FOR541/542* 1 Cr Elective 11-12

*Prerequisite: Successful completion of Spanish III*

This year of study continues what has been covered in third year. Several pieces of contemporary literature from representative Spanish and Latin American authors are read and discussed in depth. Emphasis will be on improved reading ability and oral participation. There is a general grammar review, followed by a study of several significant grammar issues. Several short compositions are to be written. The entire class is conducted in Spanish. A personal Spanish dictionary is required.

**Spanish Language AP**

*FOR551/552* 1 Cr Elective 11-12

*Prerequisite: Successful completion of Spanish IV*

This course is conducted completely in Spanish. Select contemporary pieces of literature serve as the basis for a refinement of oral expression in Spanish. Well-prepared oral presentations are required. Greater emphasis is also placed on writing of compositions and the mastery of grammar points and syntax. This course is equivalent to university level curriculum and is offered with the option of taking the advanced placement exam in language for university credit and/or placement.

---

**MATHEMATICS**

**EXAMPLES OF TYPICAL MATH COURSE SEQUENCES:**

We encourage students to take more than the required two years of mathematics. The following sequence depends on the starting course. Some possible sequences are:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra 1</td>
<td>Algebra 1 Hnrs</td>
<td>Integrated Math 1</td>
<td>Geometry Hnrs</td>
<td>Integrated Math 2</td>
<td>Alg 2-Trig Hnrs</td>
</tr>
<tr>
<td>Geometry</td>
<td>Geometry Hnrs</td>
<td>Integrated Math 2</td>
<td>Alg 2-Trig Hnrs</td>
<td>Integrated Math 3</td>
<td>Pre-Calculus</td>
</tr>
<tr>
<td>Alg 2-Trig</td>
<td>Alg 2-Trig Hnrs</td>
<td>Integrated Math 3</td>
<td>Pre-Calculus</td>
<td>Calculus AB AP</td>
<td>Calculus AB AP</td>
</tr>
<tr>
<td>Algebra 3 &amp;/or Statistics AP</td>
<td>Pre-Calculus, Alg. 3</td>
<td>Integrated Math 4</td>
<td>Calculus AB AP</td>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
</tr>
<tr>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
<td>&amp;/or Statistics AP</td>
</tr>
</tbody>
</table>

**Algebra 1 and Geometry or Integrated Math 1 & 2 are required for graduation. In addition, most colleges are now requiring the successful completion of Algebra 2-Trig, Integrated Math 3 or higher.**
Algebra 1
MAT111/112 1 Cr Grade 9-10
*Prerequisite: Completion of 8th grade math.
Algebra 1 is a regular course in first-year Algebra. It covers the following topics: number systems and their properties, expressions and sentences, polynomials, rational expressions and sentences, graphing, systems of equations and inequalities, introductory statistics, radicals and exponents, linear and quadratic functions and relations. Emphasis is placed on practical applications of Algebra as well as computation. Graphing calculators will be used regularly. Students need to purchase one of the following types of calculators: scientific or graphing. This course meets the graduation requirement for Algebra 1. Upon successful completion of this course, students will be eligible to take Geometry.

Algebra 1 Honors
MAT121/122 1 Cr Grade 9
*Prerequisite: Recommendation of 8th grade math teacher.
This course covers the same topics as Algebra 1. However, the honors class is designed for the student who does very well in mathematics, needs little or no arithmetic review, and who can work well at a more rapid pace than regular Algebra 1. Topics are covered in more depth and with greater degrees of difficulty. Graphing calculators are provided, when needed. This course meets the graduation requirement for Algebra 1. Upon successful completion of this course, students will be eligible to take Geometry Honors.

Integrated Mathematics 1
MAT131/132 1 Cr Grade 9-10
(Embedded Honors option available)
*Prerequisite: Completion of 8th grade math.
This course advances mathematical understanding through interwoven strands of Algebra and functions, Geometry, Statistics and probability, and discrete mathematics. Each of these strands is developed within focused units connected by fundamental themes, common topics, and mathematical thinking. The program emphasizes mathematical modeling and modeling concepts, including data collection, representation, interpretation, prediction, and simulation. This course is ideal for students who enjoy cooperative learning similar to the CMP math program from Middle School, or are considering retaking Algebra 1. This course can be taken for honors credit. Graphing calculators are required and used throughout the curriculum. Upon successful completion of this course, students would enroll in Integrated Math 2. Successful completion of the Integrated Math 1 & 2 courses fulfills the requirement for graduation.

Geometry
MAT211/212 1 Cr Grades 10-12
*Prerequisite: Successful completion of Algebra 1.
The objectives of Geometry are to develop an understanding of the properties and relationships of objects in two and three-dimensional space. Emphasis is placed upon using and extending Algebraic techniques, modeling real world applications, and developing the idea of proof in mathematics. Students need a scientific or graphing calculator.

Geometry Honors
MAT221/222 1 Cr Grades 9-10
*Prerequisite: Grade of A or B in Algebra 1 Honors
This course covers the same topics as Geometry but with more emphasis on formal proof. This honors class is designed for the student who does well in mathematics and needs little or no Algebra review. Topics will be studied in more depth and with greater degree of difficulty. The Algebra 2-Trig Honors class could be taken concurrently with Geometry Honors, or following completion of Geometry Honors.

Integrated Mathematics 2
MAT231/232 1 Cr Grade 10-12
(Embedded Honors option available)
*Prerequisite: Successful completion of Integrated Mathematics 1 or completion of 8th grade CMP with a grade of B or above and completion of a summer enrichment packet.
This course builds upon the concepts learned in Integrated Mathematics 1 and further advances mathematical understanding along interwoven strands of Algebra and functions, Geometry and Trigonometry, Statistics and probability, and discrete mathematics. Each of these strands is developed within focused units connected by fundamental themes, common topics, and mathematical ways of thinking. The program emphasizes mathematical modeling and modeling concepts, including data collection, representation, interpretation, prediction, and simulation. This course is ideal for students who enjoy cooperative learning. This course can be taken for honors credit. Graphing calculators are used throughout the curriculum. Integrated Math 1 and 2 fulfill the minimum graduation requirement for math.
Algebra 2-Trig

MAT311/312  1 Cr  Elective 10-12

*Prerequisite: Successful completion of Algebra 1 and Geometry with grade of C or better

Algebra 2-Trig includes a third semester of Algebra and a course in Trigonometry. Skills and concepts developed in Algebra 1 and Geometry are reviewed and studied in greater depth and new topics are presented. This course is designed for the serious college-bound student and is a prerequisite for Algebra 3. Graphing calculators are used in this course.

Algebra 2-Trig Honors

MAT321/322  1 Cr  Elective 10-12

*Prerequisite: Grade of A or B in Geometry Honors

Algebra 2-Trig Honors is significantly different from Algebra 2-Trig. It is much more challenging and more emphasis is placed on theory and applying theory to mathematical modeling. Students earning A's and strong B's may elect to take Precalculus as their next course. It is recommended that students earning low B's or C's will take Algebra 3. This course is the normal prerequisite for Precalculus. A graphing calculator is required. (TI83, TI83+, TI84 or TI84+ is recommended.) *Note that students who want to accelerate can take this course concurrently with Geometry Honors.

Integrated Mathematics 3

MAT331/332  1 Cr  Elective 10-12

(Embedded Honors option available)

*Prerequisite: Successful completion of Integrated Mathematics 2.

This is the third course in of a four year Integrated Mathematical Sciences Program. The course emphasizes multiple variable models, patterns in variation, modeling motion, modeling social decision making, functions and Algebraic reasoning, shapes and Geometric reasoning, discrete models of change, and surveys and samples. This course is an in-depth study of the topics, with greater emphasis on Advanced Algebraic concepts. The nature of the applications will require that students improve their critical thinking skills and their abstract reasoning abilities. This course is ideal for students who enjoy cooperative learning. This course can be taken for honors credit. Graphing calculators are used throughout the curriculum. Progression through Integrated Math 3 is equivalent to progression through Algebra 2-Trig.

Pre-Calculus

MAT361/362  1 Cr  Elective 11-12

*Prerequisite: Grade of A or strong B in Algebra 2-Trig Honors

This is the standard prerequisite for Calculus I. The concepts and skills from Algebra 1 through Algebra 2-Trig Honors are extended and reinforced. Some of the new topics introduced include: properties of polynomial functions, sequences and series, permutations and combinations, conic sections, polar coordinates, mathematical induction, and the binomial theorem. Students completing this course successfully are prepared for Calculus. A graphing calculator will be used.

Algebra 3

MAT411/412  1 Cr  Elective 11-12

*Prerequisite: Successful completion of Algebra 2-Trig

This course is designed for students who want to take a fourth year of college preparatory mathematics, but who is not yet prepared to take Precalculus. Relations and functions, probability and statistics will be covered. A graphing calculator will be used. Successful completion of this course does NOT satisfy the prerequisite for Calculus I.

Integrated Mathematics 4

MAT431/432  1 Cr  Elective 11-12

(Embedded Honors option available)

*Prerequisite: Successful completion of Integrated Mathematics 3

This is the fourth course of a four-year Integrated Mathematics Program. The course emphasizes and extends: rates of change, modeling motion through vector analysis, data models, counting models, statistical inference, polynomial and rational functions, functions and symbolic reasoning, Space Geometry, Informatics, problems solving, algorithms and spreadsheets. This course examines all topics in depth, and aligns well with the recommended preparation for Calculus topics in the College Board AP Calculus Guide. Students successfully completing this course will be prepared for Calculus. This course is ideal for students who enjoy cooperative learning. This course can be taken for honors credit. A graphing calculator will be used in this course.
Algebra Concepts for Transcripted Credit* MAT511/512 1 Cr & Elective 12
3 MATC Cr

*Prerequisite: Successful completion of Algebra & Geometry or Integrated Math 1 & 2
Algebra Concepts for Transcripted Credit provides a thorough coverage of topics in an introductory college-level Algebra course. The course focuses on skills and techniques used to simplify and solve linear, polynomial, radical and rational expressions and equations, with an emphasis on solving problems with real world applications. Upon completion of this course, with a passing grade, students will receive both 1 elective mathematics credit from MMSD and 3 technical college credits from a Wisconsin technical college. Students will receive an official transcript from the technical college verifying the grade and the granting of technical college credit. There is no cost for the college credits.

*TC – Transcripted credit is dependent on the annual renewal and successful completion of an agreement for credit between MMSD and a Wisconsin technical college.

Calculus AB AP MAT521/522 1 Cr Elective 11-12
*Prerequisite: Successful completion with a grade of B or better in Pre-Calculus or Integrated Mathematics 4
This course is the equivalent to a college level one-semester course in Calculus. Some colleges will grant advanced placement and possibly credit depending on the results of the AP Calculus test, offered in May. Specific topics include: limits, continuity, derivatives, integrals, as well as applications of derivatives and integrals. The course uses basic Analytical Geometry of lines and conics, logarithmic, polynomial, Algebraic, Trigonometric and inverse Trigonometric functions. A graphing calculator is required. (TI83, TI83+, TI84 or TI84+ recommended).

Calculus BC AP MAT531/532 1 Cr Elective 12
*Prerequisite: Successful completion of Calculus AB AP
This course is the equivalent to a college level second-semester course in Calculus and Analytic Geometry. College credit and/or advanced placement may be earned depending on the results of the AP Calculus test, offered in May. Specific topics include: additional work on functions and graphs, limits and continuity, differential and integral Calculus, and the addition of sequences and series, vectors, parametric and polar functions. This course will prepare students for the BC Advanced Placement Calculus exam. A graphing calculator will be used.

Statistics AP MAT541/542 1 Cr Elective 11-12
*Prerequisite: Successful completion of Algebra 2-Trig
This course will introduce the major concepts and tools for collecting, analyzing, and drawing conclusions from data. It is the equivalent to a one semester introductory college Statistics course and will follow the course outline provided by the College Board. Students will have the opportunity to take the AP Statistics exam (at the student’s expense) at the end of the year and possibly receive college credit and/or advanced placement. A graphing calculator with statistics functions is required. (See teacher for recommended model.)

MUSIC

Chorale MUS101/102 1 Cr Elective 9
This is a year-long course that explores choral music from a wide variety of cultures and time periods through study and performance. The core curriculum emphasizes the basics of vocal technique, sight-reading, music theory, and music history. Students in Chorale are expected to participate in one evening concert each quarter as a major part of their grade.

Treble Chorus MUS111/112 1 Cr Elective 10-12
*Prerequisite: Chorale or permission of instructor.
This is a year-long course offered to female students as continuation in the choral sequence. The core curriculum is a deeper exploration of vocal technique, music theory, and music history through the study of a wide variety of choral music written for women’s voices. Students in Treble Chorus are expected to participate in one evening concert each quarter as a major part of their grade.
Popular Vocal Styles

MUS121/122 1 Cr  Elective 10-12
This is a year-long course offered to current and aspiring singers in grades 10-12, regardless of their previous choral experience. The core curriculum explores basic vocal technique, music theory, and history as it relates to Blues, Jazz, musical theatre, Gospel, Folk, R&B, Rock, Hip Hop, and other genres. This exploration takes place on a solo, small group, and large group performance level, as well as lecture and extensive listening. In addition, students are expected to work individually and in small groups on a self-guided curriculum to explore areas of particular interest in further detail. Students are expected to participate in one evening concert each quarter as a major part of their grade.

Concert Choir

MUS141/142 1 Cr  Elective 10-12
*Prerequisite: Audition and consent of instructor only.
This is a year-long, upper-level performance opportunity offered to experienced music students who are accomplished in vocal performance. Students will continue to develop vocal technique and musicianship as well as develop critical thinking skills through the analysis of musical elements, including form and text. Students are expected to participate in one evening concert each quarter as a major part of their grade as well as a few other performance opportunities that arise throughout the year.

Symphony Orchestra

MUS211/212 1 Cr  Elective 9-12
*Prerequisite: Recommendation of Middle School Orchestra Director or an interview/audition with the instructor.
Symphony Orchestra is offered to entering 9th grade Orchestra students and 10th-12th grade students as a continuation for students with previous orchestral experience. Educational emphasis is placed on the advancement of instrumental technique, further development of music reading and comprehension skills, independent musicianship, style, and a deeper understanding of small group ensemble music, and orchestral literature. Literature will contain both Classical and Popular music. Students will perform both in small group ensemble projects and as a large group. Symphony Orchestra will perform outside of class on a regular basis.

Philharmonia Orchestra

MUS221/222 1 Cr  Elective 10-12
*Prerequisite: Symphony Orchestra for one or more years and/or an interview/audition with the instructor.
Philharmonia is an opportunity to study advanced small group ensemble music and orchestral literature. Members are selected by audition. Philharmonia Orchestra offers students great variety and challenge in musical performance. Students will continue the advanced development of instrumental technique, music reading and comprehension skills, independent musicianship, style, critical thinking skills, a deeper understanding of small group ensemble music, and orchestral literature. Literature will contain both Classical and Popular music. Students will perform both in small group ensemble projects and as a large group. Philharmonia Orchestra will perform outside of class on a regular basis.

Orchestra Woodwinds, Brass and Percussion

*Prerequisite: membership in Honor Band, Concert Band, Freshman Band
Students should note that some Woodwind, Brass, and Percussion players may be selected from the band for occasional rehearsal and performance with the orchestra. The Honor and Concert Band periods are scheduled back to back with the Orchestra.

Freshman Band

MUS311/312 1 Cr  Elective 9
*Prerequisite: Music reading and performance ability on Percussion, Woodwind or Brass instruments.
The Music Department offers Freshman Band to entering 9th grade band students for the study and performance of quality band music. Class activities emphasize the development of instrument technique, tone production, tuning, fundamentals of music theory, music reading, and listening skills.

Concert Band

MUS321/322 1 Cr  Elective 10-12
*Prerequisite: Freshman Band or by audition.
Concert Band is a continuation level course for students with four or more years of previous band experience. Emphasis is on the advancement of instrument technique, the further development of ensemble performance skills, and rehearsal and performance of intermediate level band music.

Honor Band

MUS361/362 1 Cr  Elective 10-12
*Prerequisite: Audition or consent of instructor.
Honor Band is an upper-level performance opportunity for accomplished wind and percussion players. Honor Band offers students great variety and challenge in musical performance, including experiences in chamber music, analysis, theory and history. Membership is by audition only.
Jazz Ensemble

Students should note that Jazz ensembles, Jazz West, Jazz Too, and smaller combos, are offered to music students in the band or orchestra programs as non-credit extra curricular performance opportunities. Membership is by audition only, with meeting times scheduled before school, lunch, afternoons, and evenings.

Music Theory

Music Theory AP is a year-long course offered to students with substantial musical backgrounds (either formal, notation-based training, or significant amounts of self-taught or “by ear” knowledge) who wish to become more familiar with musical structure, language, and notation; and/or to advance personal musicianship and prepare for college study or the AP Music Theory test.

The course includes: introduction/review in the fundamentals and materials of music (notation, rhythm, melody, harmony, form, and texture); substantial amounts of ear training, arranging and composition; harmonic and formal analysis of both Classical and Pop/Jazz works; and ample opportunities for students to explore music of their own choosing.

History of American Popular Music

This course explores the evolution of popular music styles from the 19th century to the present. Musical forms covered will include: Ragtime, Blues, Tin Pan Alley, early Jazz, Swing, Country, Bluegrass, modern Jazz, Rhythm & Blues, Doo Wop, and all styles of Rock and Roll from the 1950s to punk, funk and hip-hop. Students will be introduced to these through reading, in-class demonstration, videos, and extensive listening.

Guitar I

This course is designed to accommodate students of different backgrounds and interests by offering guided study in a variety of guitar styles. All students, regardless of background, will be introduced to a core curriculum of basic techniques that include: Folk/Pop/Rock chord types (major, minor, and 7th chords), standard strumming styles for accompaniment, blues patterns, and elementary note reading. Advanced topics for individual exploration include bluegrass flatpicking, fingerpicking, elementary classical technique, barre shapes, advanced note reading (Jazz & Classical), and Rock & Blues improvisation.

Guitar II

Guitar II offers advanced instruction and guided independent work in the various genres introduced in Guitar I. The genres are: Folk, Country and Bluegrass, Blues and Rock, Jazz and Classical. Specific techniques include: melodic flatpicking, advanced Travis-style finger picking, Blues and Rock solo improvisation and barre chord applications. The course will also cover the study and analysis of well known pop guitar transcriptions using both notation and tablature and extensive note reading in both the Jazz and Classical idioms.

Hip Hop Studies

This course focuses on the evolution of hip hop culture, from its precursors in African American musical history to its inception in the Bronx in the 1970s to the global force it has become today. Students will study its history through lecture, reading, class discussion, in-class demonstrations, and extensive listening. Students will look critically at the role of hip hop in their lives and in contemporary American culture. Students will gain and expand upon the ability to perform this music through emcee techniques and beat production. Two performances outside of school will also be expected as part of the grade for the class.
PHYSICAL EDUCATION

The Madison Board of Education Policy requires students to earn 1 1/2 credits of Physical Education and 1/2 credit of Health for graduation. A minimum of three semesters of daily Physical Education is required at three different grade levels (9, 10, 11 or 12). Students may elect to take more Physical Education classes in their Sophomore, Junior, and Senior years. If, for medical reasons, a student is permanently excused from Physical Education, the credits may be made up in another subject area. Temporary medical excuses for a semester must be made up in a future Physical Education class. Health, as well as Physical Education classes, will receive a letter grade, which will be included in the student’s GPA. Students may take the Health class requirement in 9th or 10th grade. Students with challenging academic class loads in 9th grade are recommended to schedule Health in 10th grade. Fitness will be measured using Fitnessgram in PE 9 and Health classes.

Grade Point Average (GPA)

Physical Education letter grades (A,B,C,D,F) will automatically be included in the student’s GPA. Through the third week of each semester, students and parents may sign a district statement eliminating their Physical Education grade from the semester GPA. Forms need to be turned in to Room 211, the Highland SLC, by the end of the third week of the semester. The option cannot be reversed for the semester. Health class grades will continue to be included in the GPA as required by the district without option.

**Physical Education 9**
PHY103  1/2 Cr Required 9
The 9th grade Physical Education class meets daily for one-semester with emphasis on basic skills in individual sports, team sports, and fitness. Activities include: flag football, soccer, touch rugby, ultimate frisbee, softball, tennis, volleyball, floor hockey, badminton, and basketball.

**Health**
PHY113  1/2 Cr Req. for 9 or 10
The Health course is designed to help students improve their health knowledge and attitude in ways that will facilitate personal decision making and positive health behaviors. The course meets daily for one-semester and provides classroom and exercise experiences. Course content will include units on: fitness, community and environmental health, nutrition, mental and emotional health, human sexuality, personal safety and emergency care, stress management, tobacco, alcohol and other drugs. The activity sessions may include: jogging, walking, swimming, weight training, and aerobics designed to reinforce classroom presentations. The students will also be assessed for fitness level using Fitnessgram tests. Students may take the Health class requirement in 9th or 10th grade. Students with challenging academic class loads in 9th grade are recommended to schedule Health in 10th grade. **Health is required for graduation.**

**Lifetime Sports and Activities**  PHY303  1/2 Cr Elective 10-12
This course will explore various activities with an emphasis on lifetime skills and increased overall wellness. Students in this class will improve wellness through walking, jogging, stretching and a variety of games played in a non-competitive nature. Students who enjoy activity as a means of maintaining and improving overall wellness should consider this class.

**Challenges and Adventure**  PHY313  1/2 Cr Elective 11-12
*Participation fee: $30 (limited to 25 students)*
Students in this class will learn the value of cooperation and risk taking by working through individual and group challenges. Students will engage in games/activities that build trust and teach problem solving skills. These skills and challenges will be put to the test on the climbing elements in the Stevens Gym ropes course. Students will have an opportunity to climb the various elements as well as learn how to belay other climbers. Be ready to try new activities and be ready to have fun.

**Basic Weight Training and Conditioning**  PHY333  1/2 Cr Elective 10-12
This is an introductory course to basic weight training and conditioning techniques. Students will engage in free weights as well as universal weight training machines. Emphasis will be on proper technique and developing lifelong work habits. The fitness activities of the class will include: dynamic stretching, flexibility, agility, running the mile, sprinting, circuit training, and strength and fitness testing.
Social Dance
PHY343  1/2 Cr  Elective 10-12
Did you know that elective PE Ballroom dance sections are the fastest growing courses on college campuses? It’s a great place to meet new people and learn the basics for a lifetime of confidence on the dance floor. This course is designed to provide the beginning social dance student with skills in numerous varieties of social dance. These dance varieties include: fox trot, waltz, swing, polka, cha-cha, tango, rumba, square dance, Latin dances and country lines dances. Other wellness activities will be explored.

Personal Fitness
PHY353  1/2 Cr  Elective 10-12
The name says it all. This course focuses on functional fitness. Students in this class will learn multiple techniques for maintaining and improving on core strength, flexibility, balance and aerobic endurance. Some of the activities included in this class are: step aerobics, yoga, stability ball training, medicine ball training as well as resistance training. Fitness 101 is a great class for students interested in fitness training as a means of improving wellness as well as athletes looking to improve performance.

Dance 1
PHY363  1/2 Cr  Elective 10-12
Focus will be on gaining a broad view of dance as a creative art form. Activities vary and include: warm-up exercises based on modern dance, ballet and jazz techniques, dance patterns and combinations, movement improvisation, and choreographing compositions (both alone and in groups). Other wellness activities will be explored. Performing on stage, keeping a journal, consistent attendance, and participation in class are all required.

Dance 2
PHY373  1/2 Cr  Elective 11-12
*Prerequisite: Dance 1 or consent of instructor.
Focus will be on improving dance technique based on modern, ballet, and jazz foundations, improvisation and composition. Other wellness activities will be explored. Choreographing, writing a paper on dance, attending a professional dance concert, consistent attendance, participation in class and performing the choreography project for Fine Arts Week are required.

Team Sports
PHY383  1/2 Cr  Elective 10-12
This is an introductory course to team sports. The emphasis will be on rules related to the sport, skill development and team involvement. Students will participate through the use of drills, demonstrations, and game contests. Units include: football, ultimate frisbee, soccer, rugby, softball, basketball, floor hockey, Lacrosse and volleyball.

Advanced Team Sports
PHY393  1/2 Cr  Elective 10-12
This class is designed for students who desire to compete at an intense, high skill level and has performed at a high level in previous physical education classes. Emphasis is on team play and competition. Students will participate in games, league play and tournaments within the class. Units include: football, ultimate frisbee, soccer, rugby, softball, basketball, floor hockey, Lacrosse and volleyball.

CPR/First Aid, Healthy Heart & Fitness
PHY407  1/2 Cr  Elective 10-12
*Fee: approximately $62.
The skills and units covered in this course include: preventing disease transmission, the EMS system and laws pertaining to rescue, CPR for adults, children and infants, using an Automated External Defibrillator (AED), and first aid care for injuries and sudden illness. There will be continuing emphasis promoting a healthy heart. One day a week will be dedicated to heart healthy exercise, healthy snacks, and new research. Students will also be assessed for fitness level using Fitnessgram tests.

Lifeguard Training, First Aid & Pro CPR
PHY408  1/2 Cr  Elective 11-12
*Fee: approximately $90.
CPR will be included during this Lifeguard training class. The fee covers Lifeguard training, CPR and first aid materials such as books, videos, and administrative fees required by the Red Cross. Each candidate must be 15 years old by the end of the course. The student must have proficiency in swimming the five basic strokes as well as the butterfly, the ability to swim 500 yards, and the ability to dive. The student must demonstrate strength, agility, and endurance in the water. Upon successful completion of the course, Lifeguard, First Aid and CPR certificates will be issued. These skills and certifications are necessary for and may lead to employment at an aquatic facility. The students will also be assessed for fitness level using the Fitnessgram tests.
**Weight Training 2**  
PHY413  
1/2 Cr  
Elective 11-12

*Prerequisite: Basic Weight Training and Conditioning*

Students selecting this class must have had a basic weight training experience. This course offers those students an opportunity to build on what they learned in basic weight training as well as learn new exercises for improving strength. Students will be required to document the weight they are using on various lifts as a means to measure gains made. Students are also going to be tested periodically in the lifts to demonstrate improvement. Workouts may be modified to be sport or activity specific based on individual interest and need.

---

**SCIENCE**

A **life science and physical science course** are the minimum required by MMSD for graduation. The Department of Public Instruction advises that all students take at least three years of science. **Life Science** relates to fields such as: health/medicine, environment/Ecology, agriculture/food, and Biotechnology. **Physical Science** relates to fields such as: engineering, Geology, weather, Oceanography, Chemistry, Physics, Astronomy, and pharmacy. Potential suggested science course sequences are listed below; however, students are **not required** to stay within any particular sequence. These sequences are listed from the least challenging on the top to the more challenging on the bottom. The bottom selections are for those interested in pursuing a college degree related to the sciences. If a student is planning on education beyond high school, then try to avoid the sequence of top selections.

If you are interested in emphasizing the **Life Sciences**, then consider the following combination of Life and Physical Science courses:

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology I</td>
<td>General Chemistry, Earth Science, Chemistry</td>
<td>Biology II, General Physics and/or Earth Science and/or Biology II</td>
<td>General Physics and/or Earth Science and/or Biotechnology, Biology II and/or Advanced Biology and/or Advanced Chemistry and/or Biotechnology</td>
</tr>
</tbody>
</table>

If you are interested in emphasizing the **Physical Sciences**, then consider the following combination of Life and Physical Science courses:

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology I</td>
<td>General Chemistry, Earth Science, Chemistry</td>
<td>Earth Science, General Physics (either as Jr or Sr), Acc. Math Physics</td>
<td>Earth Science (either as Jr or Sr), Astrophysics and/or Advanced Physics and/or Advanced Chemistry</td>
</tr>
</tbody>
</table>

**Biology I (Embedded Honors option available)**  
SCI1101/102  
1 Cr  
Elective 9-12

Biology I is an academically rigorous lab-oriented course that involves students in the processes of problem solving in science. Students design experiments and carry out exercises that will allow them to answer questions that relate to a wide range of biological topics. Topics covered during the year include: Cellular Biology, Genetics, study of viruses and bacteria, evolution, animal structure and function with emphasis on humans. All Biology I sections include an honors option for students who have a strong desire to strengthen their depth of knowledge in Biology. An honors designation is earned by successful completion of all projects agreed to through a contract signed by student, guardian and teacher.

**Biology I Accelerated**  
SCI1151/152  
1 Cr  
Elective 9 only

*Prerequisite: The following criteria are used to select students for the class: satisfactory score on a screening exam given in the Spring of the year and a demonstrated past interest in science.*

This course covers basically the same topics as Biology I, however, the discussions often lead to more intense exploration of those topics and there is additional lab experience. The level of cognitive thinking that goes on in group discussions, laboratory exercises, and classroom lectures is very high. This course is designed to motivate and challenge students with high ability and interest in science.
Biology II

SCI201/202  1 Cr  Elective 10-12

*Prerequisite: Biology I and Algebra 1 or Integrated Math 1, General Chemistry/Chemistry or enrolled concurrently.

Students may enroll in either semester for 1/2 credit or preferably, both semesters for a full credit. This course is designed for motivated students interested in a career in science as well as an elective for other students. This course examines a variety of topics at a variety of levels in order to reveal biological principles common to all living systems. Laboratory experimentation is integrated with discussion of issues and concepts. Some first semester topics include: pharmacology, Ethno-botany, hormone function, development of organisms from single cell to adult, stem cell research, regeneration and aging. Second semester topics include: a study of the human brain involving clinical disorders, cellular circuitry, and the action of drugs on nerve cell function. The “nature vs. nurture” debate is examined from a biological perspective focusing on intelligence, brain development, and the causes of some personality traits. Modern evolution, plant and animal co-evolution and the evolution of intelligence are also covered. Finally we will examine the principles of Ecology.

Earth Science

SCI301/302  1 Cr  Elective 10-12

*Prerequisites: Biology I or Physical Science.

Students may enroll in either semester for 1/2 credit or preferably, both semesters for a full credit. Earth Science satisfies the science requirement for any course of study including college preparatory. It may be taken concurrently with Chemistry, Physics or advanced science courses. The use and practice of good study skills and organizational skills is also a goal of this course. Extensive laboratory work is also provided. This is an environmental studies course covering topics such as: acid rain, the Greenhouse Effect and Ozone depletion. This course seeks to develop an understanding of Earth's position and significance in the universe, its content and processes. The first semester surveys topics of Meteorology (weather), climate, the water cycle, Astronomy, stellar evolution and Cosmology (the origin of the universe) and our solar system. The second semester surveys topics of: Environmental Geology, Mineralogy, Petrology, plate tectonics, volcanism, earthquakes, erosion, and Oceanography. This course introduces the student to career opportunities in the fields of: Meteorology, Geology, Geophysics, Oceanography, Physical Geography, Hydrology, Agronomy, Cartography, Astronomy and conservation.

Chemistry Courses

A Chemistry course (Chemistry or General Chemistry) is a desirable elective for all students. Students need a basic knowledge of Chemistry to make informed decisions about our water, chemical, and energy resources. Knowledge of materials and the changes matter undergoes is fundamental to understanding nature. The Chemistry courses (Chemistry and General Chemistry) help students realize the role of Chemistry in their personal lives.

General Chemistry

SCI401/402  1 Cr  Elective 10-12

*Prerequisite: Successful completion of Biology I. A student may not take both Chemistry and General Chemistry.

General Chemistry is a year-long, lab-based course designed for college-bound students who plan to pursue careers in fields other than the sciences, engineering or the medical professions. This course places less emphasis on the mathematics of Chemistry than the Chemistry course. General Chemistry covers the same concepts as Chemistry (see Chemistry course description), but with stronger emphasis on Organic Chemistry, Biochemistry, Environmental Chemistry, and Industrial Chemistry. Chemical concepts are taught as needed to understand the role Chemistry has in the use and conservation of chemical resources (including water, air, fossil fuels and mineral resources), the production of energy from petrochemicals and nuclear power, and the student's health and diet. This integrated approach to applying Chemistry studies relevant social, economic, and political issues as they relate to chemical concepts.

Chemistry

SCI451/452  1 Cr  Elective 10-12

*Prerequisite: Successful completion of Algebra 1 or Integrated Math 1 and Biology I. A student may not take both Chemistry and General Chemistry.

Chemistry is a lab-oriented course designed for college-bound students planning on careers in science, engineering and technology. Those interested in becoming a dentist, nurse or medical doctor should take chemistry. Good math skills are required to do well in this Chemistry course. Chemistry covers a variety of topics such as: chemical reactions, behavior of gases, composition of the atom, nuclear chemistry, chemical bonding, molecular structure, thermodynamics, acids and bases, and Electrochemistry. These topics are supported in class through analytical laboratory experiments and inquiry-based activities.
**General Physics**  
SCI501/502  1 Cr  Elective 11-12  
*Prerequisite: Biology I and Algebra 1 or Integrated Math 1. Students may not take both General Physics and Math Physics.*  
This course is designed for students interested in learning Physics, but who intend to pursue a career not closely tied to science. The course emphasizes student-centered development of conceptual models. Topics include: motion, Newton’s laws, gravity, momentum, energy and additional topics as time allows. Considerable effort is made to relate Physics theory to naturally occurring events and everyday experiences. Labs, problem solving, demonstrations and student presentations are used to help students develop thinking skills. This course covers the same topics as Math Physics, but not as deeply.

**Accelerated Math Physics**  
SCI551/552  1 Cr  Elective 11-12  
Selective 10 (by teacher recommendation only)  
*Prerequisite: Biology I, Algebra 1 or Integrated Math 1, Geometry or Integrated Math 2 and be enrolled in a math class beyond Geometry. Students may not take both General Physics and Math Physics.*  
Students considering a career in Physics, mathematics, Chemistry, engineering or other science related fields should select this course. Since mathematics is used extensively, it is strongly recommended that students with math grades lower than B not select this course. Topics will include: motion, Newton’s laws, gravity, momentum, energy, electricity and light. Additional topics may be added as time allows. Considerable effort is made to relate Physics theory to naturally occurring events and to applications in all science-related careers. Labs, problem solving, demonstrations and student presentations are used to help students develop thinking skills. Textbooks are used as little as possible. Computers play an important role in lab work and are sometimes used to simulate situations that cannot be readily done in the lab.

**Biotechnology**  
SCI623  1/2 Cr  Elective 11-12  
*Prerequisite: Biology I and Algebra 1 or Integrated Math 1 completed. Completion of a Chemistry course or taken concurrently.*  
(Priority given to seniors)  
Biotechnology is a semester course designed for motivated students interested in the fundamentals of Molecular Biology with applications in food, agriculture and medicine. The course introduces students to basic techniques of DNA science (including recombinant DNA and cloning), Microbiology, fermentation, plant breeding and tissue culture. Learning experiences will also provide opportunities for exploring ethical, moral and legal issues. The program will prepare students for entry level employment and/or post secondary education in the field of Biotechnology or a related science field. Students may earn advanced standing (1 credit) in the MATC Biotechnology training program.

**Advanced Biology**  
SCI657/658  1/2 or 1 Cr  Elective 11-12  
*Prerequisite: Successful completion of Biology I and Chemistry as well as Physics and Algebra 2-Trig. completed or taken concurrently.*  
This course may be taken for an entire year or for either first or second semester alone. It is designed for motivated students with high ability in science, especially those interested in careers in the health and environmental sciences. First semester topics include: animal behavior and human anatomy and physiology. Second semester topics include: Taxonomy, human evolution and biodiversity/conservation. Students will gain experience accessing scientific literature and using research methods for independent research projects on animal behavior during the first semester.

**Advanced Chemistry**  
SCI667/668  1/2 or 1 Cr  Elective 11-12  
*Prerequisite: Successful completion of a Chemistry course as well as Physics and Algebra 2-Trig completed or taken concurrently.*  
This lab-based course is designed for motivated students with a high ability in science. This course may be taken for the entire year or for either the first or second semester alone. Students who take both semesters will, with some additional work, be prepared to take the Advanced Placement Chemistry exam for college credit and/or college placement (credit awarded depends on exam score and college). First semester takes a historical approach to the study of matter, including mathematical models of gases and various atomic theories, and provides an introduction to Electrochemistry, Thermodynamics and Organic Chemistry. Second semester examines: models of solids, mathematical models of chemical kinetics, equilibrium-including acid base theory and solution chemistry, Electrochemistry and Organic Chemistry. Students will be expected to prepare and perform experiments, explain the results with mathematical and molecular models, and analyze and identify unknown chemicals.
Advanced Physics  
SCI677  
1/2 Cr  
Elective 11-12  
*Prerequisite: Biology I, Chemistry and Physics completed. First semester course only.  This course is designed for motivated students with high ability in science. Topics may include: wave optics, relativity, logic circuits, electricity and magnetism, quantum mechanics, and chaos theory.

Advanced Astronomy and Astrophysics  
SCI688  
1/2 Cr  
Elective 11-12  
*Prerequisite: Biology I, Chemistry and Physics completed. Second semester course only.  This course is designed for motivated students with high ability in science. It provides a survey of our understanding of the universe and its components. Topics include: Cosmology, galaxies, the interstellar medium, stellar evolution, planetary systems, and observational tools and techniques. Current space missions and research programs will be described. Weather permitting, students will make astronomical observations through local and/or remote telescopes to "get a flavor of" astronomical observational methods. This course is being offered in collaboration with the University of Wisconsin-Madison Office of Space Science Education and other faculty and staff.

Advanced University Research in the Sciences  
SCI701/702  
Credits:  
½ Cr Summer School Science  
¼ MMSD Fall Term Credit  
1 UW-Madison Indep. Study Credit  
(additional credits at discretion of professor)  
This course is available to students from all MMSD high schools for a total of 16 students each year. Students are chosen to participate based on a written application and two teacher recommendations. Applications are available from the Science Department at the beginning of each calendar year. Participants will be placed in a UW-Madison research laboratory for approximately 9 weeks and while there, will work on research projects assigned by the professor of each lab. Students are expected to spend between 25 and 35 hours in the lab weekly. During the summer months students will meet in small discussion groups to give updates of their work in progress. In addition, each student will meet individually with the coordinator at least once during the summer months. In the fall, students will prepare scientific research papers and present their work in poster format at a district-wide event. Fall work is independent with the exception of 2 or 3 informal meetings.

**Project Lead The Way Global Academy science courses to be offered at the MATC Gammon Road Campus.**  
(See your counselor)  
**Prerequisite: Completion of high school science requirements in grades 9 and 10 or consent of high school administrator.**

- **Principles of the Biomedical Sciences**  
SCI711/712  
1 credit  
Grades 11-12  
This course provides an introduction to the biomedical sciences through exciting “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bio-informatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including: the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate.

- **Human Body Systems**  
SCI721/722  
1 credit  
Grades 11-12  
Students will examine the processes, structures, and interactions of the human body systems to learn how they work together to maintain homeostasis (internal balance and good health. Using real-world cases, students take the role of biomedical professionals and work together to solve medical mysteries. Hands-on projects include designing experiments, investigating the structures and functions of body systems, and using data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operations. Important concepts covered in the course are communication, transport of substances, locomotion, metabolic processes, defense, and protection.
Three credits of social studies are required for graduation from West High School. In grades 9 and 10, a survey class in U.S. History (9) and Western Civilization (10) is required. In Grade 11, one semester of area studies and one semester of Recent U.S. History or African American Experience are required. Grade 12 courses are all elective.

**United States History 9**  
**SOC101/102**  
1 Cr  
Required 9

This course examines the growth and conflict of the American republic from 1865 up to the eve of World War II. Students consider the history of the people, the dynamics of their government, the evolution of the democracy, and the dawn of the African American experience as a world power.

**Western Civilization 10**  
**SOC201/202**  
1 Cr  
Required 10

(Embedded Honors option available)

This survey course examines the political, economic, intellectual, social and cultural evolution of Western Civilization from its earliest development through World War II.

**Grade 11 - Recent U.S. History/Area Studies**  
1/2 Cr each  
Required 11

(Choose one: US History/American Experience (SOC303) or US History/African American Experience (SOC483)  
AND one  
of the area studies (SOC313, SOC323, SOC333 or SOC343)

**US HISTORY/American Experience**  
**SOC303**

This course surveys foreign and domestic issues that have shaped the United States over the last sixty years. Emphasis is given to United States foreign policy starting with the dropping of the atomic bombs through present day, and how those policies impacted domestic issues.

**US HISTORY/African American Experience**  
**SOC483**

Political, social, economic, and cultural changes in the U.S. from World War II to the present; focus is on African American perspective from segregation to desegregation, the civil rights movement and other Black Nationalist movements, social and cultural ascendancy through music, entertainment, and art.

**Area Studies--Grade 11**  
(one semester)  
1/2 Cr  
Required 11

Select one of the following area studies courses.

Area studies deal with the history and development of major societies of the non-Western world. The history of the regions or nations is covered from earliest times through the arrival and colonization by Europeans to present-day events including politics, industrialism and foreign affairs.

**Africa**  
**SOC313**

The continent of Africa and its countries are studied in depth as the basic part of the semester's work. Major topics include: pre-history, early traditional societies, African kingdoms, the slave trade, European colonialism, and African nations since independence.

**Latin America**  
**SOC323**

Pre-Columbian Indian societies, the period of Spanish conquest and rule, the struggle for independence and the current efforts to modernize and stabilize the wide variety of Latin American nations will be studied.

**Middle East**  
**SOC333**

Daily events in the Middle East support the conventional wisdom that religion and politics, tradition and modernism, and oil and water don't mix. Traditional Arab culture, the historical development of Islam, Judaism and Christianity, the impact of western industrial powers, and U.S. involvement will be studied as a backdrop to current issues.

**China**  
**SOC343**

China, the world's oldest living civilization, is studied from its earliest beginnings on the Yellow River to the "New China" of the present Peoples' Republic. Chinese cultural history, European impact, Nationalist and Communist Revolutions, and China's role in the global economy are major topics.
**Grade 11 & 12 Electives**

These are not required social studies courses for 11th and 12th graders. Each of the following electives is a one-semester course.

**Introduction to Economics**
SOC418 1/2 Cr Elective 11-12

The course is designed to enable students to understand the basic principles of micro and macroeconomics and be able to apply these principles when studying the controversial issues of our times. Economics plays an integral role in our lives. Topics covered include: the environment, welfare, the global market place, and fiscal and monetary policy. Students will take part in a statewide ten-week stock market simulation game.

**U.S. Government and Politics AP**
SOC437 1/2 Cr Elective 11-12

This college level course will serve to further the students’ understanding of American government and political culture with the goal of passing the Advanced Placement exam. Topics include: the theoretical foundations of the American system, political beliefs and behaviors, political parties, interest groups and mass media, institutions, public policy, civil rights and civil liberties. Students should enter the course understanding the basic functions and institutions of American government.

**Contemporary World Issues**
SOC443 1/2 Cr Elective 11-12

Speed and change besiege the 21st century world. This course will explore resulting problems, yet emphasize finding solutions for stability, justice, sustainability and well being. Develop your understanding of the modern world system. Apply theories of international relations to topics such as: globalization, the environment, global terrorism, human rights, war and the United Nations. Students select topics to examine during the second half of the course.

**Social Issues**
SOC463 1/2 Cr Elective 11-12

The course will examine a variety of contemporary social issues chosen by the students. Topics selected in the past include: affirmative action, abortion, same-sex marriage, drug legalization, capital punishment, church and state, global warming, and euthanasia.

**Grade 12 Electives Only**

These are not required social studies courses for 12th graders. Each of the following electives is a one-semester course.

**Introduction to Philosophy**
SOC423 1/2 Cr Elective 12

The course examines the central ethical, metaphysical and epistemological questions from the western tradition. We will study both classic and contemporary philosophers from Socrates to Sartre.

**Social Psychology**
SOC453 1/2 Cr Elective 12

This course explores the basic factors influencing human behavior. We will analyze the essential question: “What plays the bigger role in the development of the ‘self’; nature or nurture?” Research methods, the biology of the mind, personality theories, socializing agents (media, family, religion, schools and peers), cultural deviance, group behavior, and mental health will be studied.

**Women and Society**
SOC473 1/2 Cr Elective 12

This course will examine women’s lives in history and in contemporary society. We will explore the evolution of women’s roles, the diversity of their experiences, and the gender dynamics in areas such as: work, politics, health, and popular culture.
Applied technology courses are normally graded on the traditional grading system. A pass/fail option is available to those students who inform the instructor of their choice before the end of the third week of school. (See the instructor for more information.)

### Madison West High School Pre-Engineering Academy - Recommended Courses
Call 204-3189 or e-mail eburdett@madison.k12.wi.us for information or advisement.

#### ENGINEERING FOCUS

<table>
<thead>
<tr>
<th>FRESHMEN</th>
<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering Courses</strong></td>
<td><strong>--Intro to Engineering</strong></td>
<td><strong>--Intro to Engineering</strong></td>
<td><strong>--Intro to Engineering</strong></td>
</tr>
<tr>
<td>-Intro to Engineering</td>
<td>-Materials Science</td>
<td>-Principles of Engineering</td>
<td>-Principles of Engineering</td>
</tr>
<tr>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
</tr>
<tr>
<td>-Materials Science</td>
<td>-Civil Engineering &amp; Arch.</td>
<td>-Civil Engineering &amp; Arch.</td>
<td>-Civil Engineering &amp; Arch.</td>
</tr>
<tr>
<td><strong>Math Track 1</strong></td>
<td><strong>Geometry Honors</strong></td>
<td><strong>Algebra 2-Trig Honors</strong></td>
<td><strong>Pre-Calculus</strong></td>
</tr>
<tr>
<td>Integrated Math 2</td>
<td>Integrated Math 3</td>
<td>Integrated Math 4</td>
<td>Calculus AB AP</td>
</tr>
<tr>
<td><strong>Math Track 2</strong></td>
<td><strong>Algebra 1 Honors</strong></td>
<td><strong>Geometry Honors</strong></td>
<td><strong>Pre-Calculus</strong></td>
</tr>
<tr>
<td>Integrated Math 1</td>
<td>Integrated Math 2</td>
<td>Integrated Math 2</td>
<td>Integrated Math 4</td>
</tr>
<tr>
<td><strong>Science Track 1</strong></td>
<td><strong>Biology 1</strong></td>
<td><strong>Chemistry</strong></td>
<td><strong>Acc. Math Physics</strong></td>
</tr>
<tr>
<td><strong>Science Track 2</strong></td>
<td><strong>Biology 1</strong></td>
<td><strong>General Chemistry</strong></td>
<td><strong>General Physics</strong></td>
</tr>
<tr>
<td><strong>Architectural Focus</strong></td>
<td><strong>Science elective</strong></td>
<td><strong>Science elective</strong></td>
<td><strong>Science elective</strong></td>
</tr>
</tbody>
</table>

### A R C H I T E C T U R A L   F O C U S

<table>
<thead>
<tr>
<th>FRESHMEN</th>
<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Architectural Courses</strong></td>
<td><strong>-Intro to Engineering</strong></td>
<td><strong>-Intro to Engineering</strong></td>
<td><strong>-Intro to Engineering</strong></td>
</tr>
<tr>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
<td>-Design/Drafting/CAD</td>
</tr>
<tr>
<td>-Advanced Design</td>
<td>-Advanced Design</td>
<td>-Advanced Design</td>
<td>-Advanced Design</td>
</tr>
<tr>
<td><strong>Art Courses</strong></td>
<td><strong>Drawing &amp; Design I</strong></td>
<td><strong>Drawing &amp; Design II</strong></td>
<td><strong>Art Seminar</strong></td>
</tr>
<tr>
<td><strong>Math Track 1</strong></td>
<td><strong>Geometry Honors</strong></td>
<td><strong>Algebra 2-Trig Honors</strong></td>
<td><strong>Pre-Calculus</strong></td>
</tr>
<tr>
<td>Integrated Math 2</td>
<td>Integrated Math 3</td>
<td>Integrated Math 4</td>
<td>Calculus AB AP</td>
</tr>
<tr>
<td><strong>Math Track 2</strong></td>
<td><strong>Algebra Honors</strong></td>
<td><strong>Geometry Honors</strong></td>
<td><strong>Pre-Calculus</strong></td>
</tr>
<tr>
<td>Integrated Math 1</td>
<td>Integrated Math 2</td>
<td>Integrated Math 2</td>
<td>Integrated Math 4</td>
</tr>
<tr>
<td><strong>Science Track 1</strong></td>
<td><strong>Biology 1</strong></td>
<td><strong>Chemistry</strong></td>
<td><strong>Acc. Math Physics</strong></td>
</tr>
<tr>
<td><strong>Science Track 2</strong></td>
<td><strong>Biology 1</strong></td>
<td><strong>General Chemistry</strong></td>
<td><strong>General Physics</strong></td>
</tr>
<tr>
<td><strong>Science Track 2</strong></td>
<td><strong>Biology 1</strong></td>
<td><strong>General Chemistry</strong></td>
<td><strong>Science Elective</strong></td>
</tr>
</tbody>
</table>
CONSTRUCTION AND FINE WOODWORKING

**Introduction to Woodworking (WoodLINKS)**
TEC203  1/2 Cr  Elective 9-12
*Fee: $30

In this hands-on course students will learn modern woodworking skills by building useful projects. The curriculum focuses on standard woodworking procedures, properties of wood, accurate measurement, and the safe use of hand and power tools. At the end of the semester, successful students take home attractive projects and many new skills. This course is part of the district’s new initiative focusing on industry based training in wood products manufacturing known as WoodLINKS. Students are responsible for course supplies and materials.

**Furniture and Cabinetry (WoodLINKS)**
TEC218  1/2 Cr  Elective 9-12

*Prerequisite: Introduction to Woodworking

This course is a continuation of Introduction to Woodworking. Students will learn additional advanced skills related to cabinet making and architectural woodworking. Areas of study include: safety, wood material technology, woodworking design, project planning, woodworking machine operation, finishing methods and techniques, industry standards, and customizing. Students will also explore career opportunities and ways that woodworking applies to daily lives. Students will work independently or in groups to complete at least one major project. This course is part of the district’s new initiative focusing on industry based training in wood products manufacturing known as WoodLINKS. Students are responsible for course supplies and materials.

**Advanced Furniture & Cabinetry (WoodLINKS)**
TEC221/222  1 Cr  Elective 10-12

*Prerequisite: Furniture and Cabinetry

This course is the advanced study of wood product processing. Topics include: safety, project planning, design and understanding procedures, and using jigs and fixtures in woodworking. Areas of exploration include veneering, CNC technology and curved and circular work. There are assigned projects with additional time available for student-selected projects. Examples of projects include: shaker style furniture, cabinets, functional student furniture, and tables. This course is part of the district’s new initiative focusing on industry based training in wood products manufacturing known as WoodLINKS. Students are responsible for course supplies and materials.

**Home Maintenance & Improvements (WoodLINKS)**
TEC228  1/2 Cr  Elective 9-12

Students will learn and practice techniques and skills used in maintaining a home. Students will be exposed to basic home construction principles and the functions of related building trade areas. Students will learn about power and hand tools used in the building industry and gain hands-on experience with repairing a leak in copper pipe, patching a hole in a wall, wiring a switch or an outlet, diagnosing fuse problems, and unplugging a drain. Safety practices and procedures are demonstrated, and practiced. This course is part of the district’s new initiative focusing on industry based training in wood products manufacturing known as WoodLINKS. Students are responsible for course supplies and materials.

**Introduction to Construction (WoodLINKS)**
TEC251/252  1 Cr  Elective 10-12

*Prerequisite: Successful completion of Introduction to Woodworking or Home Maintenance & Improvement

This course is intended for students interested in construction, home building, remodeling, and other building trades. Class activities include project work in carpentry (framing and finishing), electrical, plumbing, drywall, siding, roofing, and HVAC (heating, ventilation, air conditioning). Home repairs and maintenance will also be studied. Students entering the work force after high school as well as students continuing post-secondary education (2 year or 4 year) in the construction field will benefit from this class. This course is part of the district’s new initiative focusing on industry based training in wood products manufacturing known as WoodLINKS. Students are responsible for course supplies and materials.

**Additional courses offered in Construction at schools other than West. (See your counselor)**

- Fine Woodworking  1 credit  Elective 11-12  East, LaFollette, Memorial
**COMPUTER AIDED DESIGN & ARCHITECTURE**

**Design/Drafting and Computer Aided Design**  TEC311/312  1 Cr  Elective 9-12

Students will work with computers to research and model their solutions for many different assignments. Course content will emphasize study in the following:
1. Mechanical design using the cutting-edge “SolidWorks” modeling program in order to see their prototypes in a 3d virtual world.
2. Architectural design using the AutoCAD Computer Aided Design (CAD) programs to create their projects in a digital environment.
3. Using AutoCAD programs to animate designs.

Students interested in the area of Engineering and Architecture are encouraged to enroll in this course.

**Advanced Design**  TEC321/322  1 Cr  Elective 11-12

*Recommended: Successful completion of Design/Drafting*

This is the course for the serious design student. Computer generated drawings are used in this class to express ideas. Architectural students and 3D students are encouraged to take this studio style class to further their portfolios. Field trips, guest speakers and statewide competitions will be included within this course.

**PRINCIPLES OF ENGINEERING & MATERIALS SCIENCE**

**Introduction to Engineering**  TEC401/402  1 Cr  Elective 9-12

*"Project Lead The Way"*

*Recommended: Successful completion of Algebra 1 or Integrated Math 1 or taken concurrently.*

This course introduces students to the design process and the tools used in product development. Students will experience first-hand the activities in which engineers engage throughout the design cycle. Development of design briefs, sketching, 3D solid modeling, and prototyping through computer-aided drafting are part of the course. Students will have the opportunity to learn ways in which design techniques apply to many fields such as healthcare, business, art and animation, manufacturing, and engineering. Problem solving and math as it applies to products and services for today’s society are emphasized. Students are responsible for course supplies and materials. This course is part of the district initiative in Engineering known as Project Lead The Way. College credit is available.

**Principles of Engineering**  TEC411/412  1 Cr  Elective 10-12

*"Project Lead The Way"*

*Prerequisite: Successful completion of Intro to Engineering, successful completion of Geometry or Integrated Math 2 or taken concurrently*

Students will experience engineering and design technology and use various technological systems and manufacturing processes that demonstrate ways in which engineers and technicians use math, science and technology to benefit people. This course will be a mix of hands-on and academic activities including computer-aided design projects, research activities, case studies, team product development, and discussions on the social and political consequences of technological change. Students are responsible for course supplies and materials. This course is part of the district initiative in Engineering known as Project Lead The Way. College credit is available.

**Materials Science**  TEC421/422  1 Cr  Elective 9-12

Materials make modern life possible, from the polymers in the chair you sit on and the metal ball point pen you write with, to the concrete that is used for all roads and buildings. All these items are products of Materials Science and Technology. Materials Science involves: designing, choosing, testing and using materials such as metals, polymers, ceramics and composites. Making glass from sand, designing and casting metals, analysis of metals, as well as developing and destructive testing of concrete are a few of the 66 different experiments in this class. Students interested in careers in Science, Engineering, or Art and Technology will benefit from the knowledge gained in Materials Science. This program is recognized and receives support from the University of Wisconsin’s School of Engineering.
Civil Engineering & Architecture

**Project Lead The Way**

*Prerequisite: Successful completion of Introduction to Engineering or Principles of Engineering, successful completion of Geometry or taken concurrently*

In this class you will learn about Civil Engineering and Architecture, using the design process to solve real world problems and apply your creative skills to hands-on-projects. You will use state-of-the-art software to design residential and commercial buildings. This course covers topics such as the roles of civil engineers and architects, project planning, site planning, building design, project documentation and presentation, and interior design. Students are responsible for course supplies and materials. This course is part of the district initiative in Engineering known as Project Lead The Way. College credit is available.

**Additional courses offered in Engineering at schools other than West. (See your counselor)**

- Aerospace Engineering                                  1 credit  Elective 11-12  Memorial
- Engineering Design and Development                      1 credit  Elective 12     Memorial
- Civil Engineering & Architecture                        1 credit  Elective 11-12  LaFollette & Memorial
- Advanced Civil Engineering & Architecture 2             1 credit  Elective 11-12  LaFollette
- Digital Electronics                                    1 credit  Elective 10-12  East
- Computer Integrated Manufacturing                       1 credit  Elective 11-12  East

**TRANSPORTATION**

**Consumer Auto**

*Fee: $15*

This course is designed for the student who would like to own and maintain a personal vehicle. The course covers basic car care, under-hood inspection (fluids, belts, hoses), removal and replacement of common parts (wiper blades, bulbs, fuses), cooling system maintenance, battery/charging system diagnosis, lubrication system maintenance, tire information, brake inspection, minor ignition system maintenance (spark plugs, wires, firing order), car buying, car insurance, and service information. Students are responsible for course supplies and materials.

**Outdoor Power Equipment Technology**

*Fee: $15*

Students will study the theory and operation of two- and four-stroke engines. They will gain hands-on experiences by disassembling, analyzing, and reassembling a small engine. Students will be encouraged to bring in repair projects from home. The course integrates and reinforces basic science principles and mathematical concepts while providing hands-on experiences. Students are responsible for course supplies and materials.

**Automotive Technology 1/Engine Systems**

*Prerequisite: Successful completion of Outdoor Power Equipment Technology or Consumer Auto*

*Fee: $15*

Automotive Technology 1 is an introduction to basic engine construction and operation. Students will disassemble an engine to study engine components, operation, testing procedures, and engine trouble diagnosis. Students will study the following automotive engine systems: cooling, lubrication, fuel, electrical, and ignition. Students are responsible for course supplies and materials.

**Automotive Technology 2**

*Prerequisite: Successful completion of Automotive Technology 1/Engine Systems*

*Fee: $15*

This course is designed for students interested in entering the automotive profession or gaining a solid foundation of the automotive field. Students will learn how to diagnose and repair electrical/electronic systems, brake systems, suspension and steering systems, and engine performance systems. The three Cs of auto repair will be emphasized: Concern, Cause, and Correction of system problems. If this course is taken at Memorial, it is considered the first year of the Automotive Youth Apprenticeship Program. Students will be required to join SkillsUSA student organization as part of this course. Students are responsible for course supplies and materials.

**Additional courses offered in Transportation at schools other than West. (See your counselor)**

- Auto Technology 3                                      1 credit  Elective 11-12  East, LaFollette & Memorial
- Auto Technology 4/Advanced Engines                     1 credit  Elective 11-12  LaFollette & Memorial
- Automotive Youth Apprenticeship Prog.                 1 credit  Elective 11-12  Memorial
ACADEMIC SKILLS

**Read 50-1**

RDG151/152  1 Cr  Elective 9-12

Read 50-1 is an intensive, year-long reading program designed to meet the needs of students whose reading achievement is below the proficient level. Students receive instruction to address their individual needs through adaptive and instructional software, high interest literature, and direct instruction in reading skills and strategies. Class size is limited and students will be selected on the basis of their reading scores on standardized tests and/or teacher recommendation.

**Read 50-2**

RDG251/252  1 Cr  Elective 10-12

Read 50-2 is an intensive, year-long reading program designed to meet the needs of students whose reading achievement is below the proficient level. Students receive instruction to address their individual needs through adaptive and instructional software, high interest literature, and direct instruction in reading skills and strategies. Class size is limited and students will be selected on the basis of their reading scores on standardized tests and/or teacher recommendation.

**Academic Foundations**

GEN501/502  1 Cr  Elective 9

Academic Foundations is a class designed for 9th graders who do not receive support services, but may need additional instruction in reading and writing. It is an elective and does not replace any required academics. The purpose of the class is to strengthen the skills which are necessary to compete in regular or higher level courses. Organization and study skills are also part of class instruction. Class sections are small and consist of only eight to ten students. Communication with parents is given a high priority.

**ALTERNATIVE CREDIT OPPORTUNITIES**

(Sign up for these in the Fall – Student Assistant Form due by the end of the 2nd week of each semester)

**Freshman Advisory**

ADVS01,2,3,4  1/2 Cr/Yr  Required 9

Freshman Advisory is a required course exclusively for 9th grade students. Advisory meets for twenty minutes each day. Freshman Advisory provides a comfortable transition to high school for every single freshman at West. Each advisory is supervised by West High staff and taught by its own A-Team (Advisory Team), comprised of juniors and seniors who serve as mentors (see Advisory Team description below). The course will cover academic achievement, personal identity, social development, and involvement in West’s rich variety of resources and extra-curricular activities.

**Advisory Team**

GEN137 (Sem I)  1/2 Cr  Elective 12
GEN138 (Sem II)  1/2 Cr  Elective 11-12

Advisory Team (A-Team) students become the student leaders of Freshman Advisory classes. Juniors and seniors with strong leadership potential take on the responsibility of being role models and mentors for younger students. They will work in teams of three or four to lead a Freshman Advisory. A-Team can be taken for one or two semesters, and will start out as a five-day-per-week course, dropping to fewer days once an effective routine is established for delivering the Freshman Advisory services. Late arrival/early release, or Commons will be on days the class does not meet. Students will receive instruction in group dynamics, developmental psychology, and teaching methodology. Students will learn practical skills, expand their perspective, and have some fun along the way in this very interactive course.

**Office Assistant**

UCA011/012  1/4 Cr  Elective 9-12

**Application form required**

Assistants work in offices or in the student services center. They receive 1/4 credit per semester. Their responsibilities depend on the needs of the particular office, but include delivering messages, distributing mail, assisting with records of absences and program changes, answering the telephone, etc. Other duties are assigned by the secretary as help is needed.
**Class Assistant**

UCA067/068  
1/4 Cr  
Elective 11-12

**Application form required**

Students are selected by course instructor or may apply to instructor to assist in the classroom. Duties include: helping set up demonstrations, working on laboratory experiments, and assisting students with laboratory or class work. Assistants are expected to be available a minimum of 5 periods per week. **Application is due by the end of the 2nd week of the semester.**

---

**LMC Assistant**

UCA031/032  
1/4 Cr  
Elective 9-12

**Application form required**

Interested students should speak with the librarian. The librarian will determine final selection. Student assistants work with the LMC staff on a variety of tasks. Assistants are expected to be available a minimum of 5 periods per week.

---

**Independent Study**

IND011/012  
1/2 Cr  
Elective 11-12

*Application form required and approval by West High Independent Study Committee.*

The Independent Study Program at West High School provides opportunities for students to engage in learning activities which are above and beyond those found in the regular curriculum. Such study extends opportunities for individual students to work under the supervision of a faculty member on projects that lend both depth and breadth to the student’s education. **Application forms are available in the Highland SLC Office (Rm 211) and need to be submitted for consideration by the end of the second week of each semester.**

---

**Work Experience**

WEX001/002  
1/2 Cr  
Elective 11-12

Student receives 1/2 credit per semester for a minimum of ten hours of employment per week. Students must secure their own jobs. Enrollment is contingent upon counselor recommendation. Work Experience credit may be earned if a student is deficient in credit towards graduation. Students may not sign up for work experience until school begins in the fall and must reapply for second semester. **Students must be at least 16 years of age to qualify for Work Experience credit. No more than 2 credits will be allowed toward graduation.**

---

**Tutoring**

TUT101/102  
1/4 Cr  
Elective 9-12

The Cross-Grade Peer Tutorial Program is a service oriented program for those students who wish to volunteer as tutors. This program is designed to give academic support to students who may need instructional help beyond what is available in the regular classroom. Assistance is offered to any motivated student (freshman through senior) in a variety of subjects. Interested students should select, to tutor, the subject(s) in which they feel the greatest confidence. Tutors are usually recruited and accepted through a teacher’s recommendation. Credit depends on the commitment and dependability of the tutor. Enrollment does not guarantee credit, since a working relationship has to be established with another student. This should not be used to fulfill close graduation requirements. Students should sign up in the Cross-Grade Peer Tutorial Room (Room 212) after school starts in the fall.

---

**West High Elementary Tutor Program**

TUT013  
1/4 Cr  
Elective 9-12

This course is open for students of color who demonstrate strong academic and leadership skills. The purpose of the West High Elementary Tutor Program is to provide positive role models for Elementary students of color. West High students of color will receive 1/4 of a credit second semester to tutor students three days a week, every Tuesday, Wednesday and Thursday. Tutors will work with students at Lincoln Elementary during their first or last hour of the school day. West High students of color will also have an opportunity to be exposed to the teaching profession. Transportation will be provided from Lincoln Elementary School to West High School. **Students must obtain permission from their parents, guidance counselor, and the Minority Services Coordinator in order to sign up for this course.**

(© The West High Elementary Tutor Program is a joint effort by the school district, West High, and Lincoln Elementary School.)

---

**Stage Crew**

MUS501/502  
1/4 Cr  
Elective 9-12

Stage Crew is run through the Drama program and Aud Crew Club. You must be involved with these programs to receive ¼ credit for the semester.
The West High Special Education program provides a range of services for students who have been identified through the IEP team evaluation process.

Most special education students are enrolled in regular education classes. The special education staff supports various regular education classes. These courses are for students who are able to manage themselves successfully in a mainstream environment and can be successful with limited accommodations. Enrollment in these classes is limited and consent of the case manager is required. The selection of supported classes varies each year, but usually includes the following:

<table>
<thead>
<tr>
<th>--Algebra</th>
<th>--English 9</th>
<th>--US History 9</th>
<th>--Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>--Geometry</td>
<td>--English 10</td>
<td>--Western Civilization</td>
<td>--Earth Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--American Experience &amp; Social Studies area studies</td>
<td></td>
</tr>
</tbody>
</table>

Some IEPs indicate a need for self-contained instruction for various reasons. To meet those needs, West offers the following classes. Enrollment in these courses requires the recommendation of the case manager, based on Section G of the student's IEP.

**Functional Math**
XIS111/112 1 Cr Grades 9-12
Functional Math is for students with limited number concepts and skills. The students will work to improve computation, understanding of time and money application.

**General Math**
XIS121/122 1 Cr Grades 9-10
Higher level arithmetic skills for students not expected to follow the Algebra/Geometry requirements for graduation.

**Consumer Math**
XIS131/132 1 Cr Grades 11-12
Consumer related mathematics for independent living. Topics may include: banking, comparison-shopping, installment purchases, budgeting, taxes, buying a car, and renting an apartment.

**Exploring Algebra**
XIS141/142 1 Cr Grades 9-10
For students scoring at a minimal level on the WKCE. This course will focus on teaching and reviewing the basic concept of Algebra in preparation for students to go on to the Algebra course required for graduation.

**Fundamentals of Writing 9**
XIS151/152 1 Cr Grades 9
Parallels writing skills taught in English 9 through direct instruction of the eight parts of speech, the teaching of mechanics and grammar for writing paragraphs with a topic sentence, supporting sentences, and a concluding sentence, and by teaching how to effectively respond in writing to literacy elements/societal issues found in literature.

**Life Skills English I**
XIS213 1/2 Cr Grades 11-12
Functional reading and written language skills are exercised in this class to increase awareness and ability to be resourceful in the community so that students achieve their goals in employment or post-secondary settings.

**Life Skills English II**
XIS217/218 1/2 Cr Grades 11-12
This class is a continuation of Life Skills English I, but may be taken independently of the course. Students will exercise functional reading and written language skills with focus on pursuing success in life goals.

**Composition**
XIS233 1/2 Cr Grades 10-12
Emphasizes the improvement of writing skills to facilitate success in mainstream classes by increasing vocabulary, improving editing skills, improving paragraph/essay writings skills through the use of proper mechanics and grammar usage.
### Functional Reading

**XIS261/262**  
1 Cr  
Grades 9-12  
For students at a basic developmental level who need to improve sight word vocabulary and reading readiness skills to enhance performance in the community setting.

### Direct Instruction Reading

**XIS271/272**  
1 Cr  
Grades 9-12  
For students who have trouble working independently and require phonics based, direct instruction, teacher-lead small group approach to reading. Focus on: decoding, word-attacks skills, improving reading rate, and comprehension.

### Read 50-1

**RDG151/152**  
1 Cr  
Grades 9-12  
Read 50-1 is a reading program for students reading at the 4th grade level or above. Decoding and spelling are addressed through an instructional software program. Comprehension skills are targeted through direct teacher instruction and the use of high interest, relevant reading material.

### Read 50-2

**RDG251/252**  
1 Cr  
Grades 10-12  
Read 50-2 is a reading program for students reading at the 4th grade level or above. Decoding and spelling are addressed through an instructional software program. Comprehension skills are targeted through direct teacher instruction and the use of high interest, relevant reading material.

### Guided Study

**XIS391/392**  
1/4 Cr  
Grades 9-12  
Guided Study is designed to provide an environment that promotes learning, helping students with organization of materials, assignment notebook monitoring, material review, assignment completion, planning timelines for assignment completion, test studying/taking strategies, and test accommodations.

### Employment Skills

**XIS433**  
1/2 Cr  
Grade 11-12  
The course includes the following activities and expectations: (1) Career exploration and planning to match interests, skills, and abilities with careers in order to develop an education and career plan, (2) Employability skills such as finding a job, filling out applications, interviewing, keeping a job, and developing a work related portfolio, (3) Opportunity to develop and demonstrate employability skills through work in a school-based business, (4) Tour of the MATC Truax Campus, and (5) Field trip to a job fair.

### Living on Your Own

**XIS443**  
1/2 Cr  
Grade 11-12  
The course is designed to provide information and resources for successful transitioning from high school to life after high school and to develop self-advocacy and employability skills with the expectation of working in a school-based business. Topics include: housing, transportation, banking, self-advocacy, decision making, planning, and budgeting.

### Work Experience

**XIS451/452**  
1/2 Cr/sem  
Grade 11-12  
Community setting. Designed for students to earn credits for both employment and finding a job. Provides direct assistance with securing and maintaining employment.

### Pathways

**XIS461/462**  
Enrollment for Pathways is by case manager referral only and approval by the Special Education Principal.

### Functional Academic Skills

**XIS517/518**  
1/2 Cr  
Grade 9-12  
Functional Academic Skills is designed to provide small group/independent instruction in order to meet the specific functional skill outlined in the IEP. These students are generally preparing for community based programming for adult daily living.

### Independent Living Skills

**XIS521/522**  
1/2 Cr  
Grade 9-12  
Students will be in a community setting. Independent Living emphasizes the development of functional, age-appropriate independent living skills. Out of school instruction may include accessing public transportation, shopping, restaurants, banking, recreation activities, housing and domestic skills.

### Community Academic Skills

**XIS531/532**  
1/2 Cr  
Grade 9-12  
Students will be in a community setting. Community Academic Skills will address the academic instructional requirements articulated in the IEP in an alternative academic setting or through independent study with a focus on graduation requirements.
Work Experience

XIS541/542 1/2 Cr Grade 9-12
Students will be in a community setting. Emphasizes functional and vocational skills developed within an integrated community. Students will learn how to obtain and secure a job, in addition to developing other work-related skills. The skills may include: social interactions, task consistency, responsibility, initiative, and self-advocacy. Students require ongoing support and supervision to be successful on their job.

Transition Skills

XIS551/552 1/2 Cr Grade 9-12
Community setting. Individualized to assist the student in meeting IEP goals and to help the student connect with community resources and agencies such as MATC, DVR, Madison Urban League, and the Dane County Job Center. Covers areas such as banking, housing, time management, and daily living skills.

Vocational Experience

XIS561/562 1/2 Cr Grade 9-12
Community Setting. Individualized to assist the student in meeting IEP goals in the area of career awareness, exploration, and development. The goal of the class is to develop a career and education plan through the use of interest inventories, research about careers, job shadowing, and volunteer experience.

ENGLISH AS A SECOND LANGUAGE (ESL)

ENGLISH LANGUAGE LEARNERS (ELL)

The ESL/Bilingual Program offers non-remedial, sheltered courses in language arts, social studies, science, and math to English Language Learners on the basis of language proficiency. The English language proficiency levels are determined by the WIDA ACCESS Placement Test.

West High’s ESL course descriptions indicate a range of language proficiency levels which correspond to the English proficiency required for understanding course content. The range may be used as a general guideline for student placement; however, the ACCESS assessment is not always an accurate reflection of an individual student’s English language and academic skills. Teacher discretion should also be used for placement of students into appropriate courses.

The newcomer classes are designed to assist students of limited or no English language proficiency with learning English, developing fundamental academic skills, and acclimating to West High and the American school system. Content focuses on the conversational English necessary for navigating school and the community, as well as on developing academic language and the study skills necessary to succeed at West.

<p>| Level 1 | Entering: No English | The student does not understand or speak English with the exception of a few isolated words or expressions |
| Level 2 | Beginning: | The student understands and speaks conversational and some academic English with hesitancy and difficulty. |
| Level 3 | Developing / Intermediate: | The student understands and speaks conversational and academic English with decreasing hesitancy and difficulty and is developing reading comprehension and writing skills in English. The student's English literacy skills allow the student to demonstrate academic knowledge in content areas with assistance. |
| Level 4 | Expanding / Advanced Intermediate: | The student understands and speaks conversational English without apparent difficulty, understands and speaks academic English with some hesitancy and requires assistance to fully demonstrate knowledge in content area. |
| Level 5 | Bridging / Advanced: mainstream with support | The student understands and speaks conversational and academic English well, but may still need support to succeed in mainstream classes. |
| Level 6 | Exiting: mainstream- no support | The student no longer needs support in mainstream classes. |</p>
<table>
<thead>
<tr>
<th>Listing of ESL Courses with Corresponding Language Proficiency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Newcomer Courses</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Language Arts Courses</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Language Arts Electives</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Social Studies Courses</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Science Courses</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Business Elective</strong></td>
</tr>
<tr>
<td><strong>Spanish Language Literature Electives</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**LANGUAGE ARTS COURSES:**

**Newcomer English**  
ZSL481/482  
1 Cr  
*DPI level 1 – 1.5.* Content focuses on English language acquisition in the four domains of reading, writing, speaking, and listening. Special emphasis is given to building academic language and developing the study skills necessary to succeed at school.

**Beginning Language Arts**  
ZSL011/012  
1 Cr  
*DPI level 1.5 – 2.0.* A major objective of this course is to acquaint beginning English language learners with the organizational skills to be successful in school. While learning the academic skills to function in an American school, students also develop basic, communicative vocabulary and fundamental grammar with an emphasis on sentence structure, improve listening and speaking skills, engage in writing sentences and completing “real world” forms, such as: job applications, checks, and read trade books and a variety of other short selections.

**Advanced Beginner Language Arts**  
ZSL021/022  
1 Cr  
*DPI level 1.5 – 2.9.* This course is for those students who have progressed beyond Beginning Language Arts, but are not yet prepared for Intermediate Language Arts. Students continue to develop communicative and academic language, literacy skills, and sentence and paragraph composition.

**Intermediate Language Arts**  
ZSL111/112  
1 Cr  
*DPI level 2.5 – 3.5.* Intermediate English language learners improve both receptive and productive language skills. Students read a variety of genres: short stories, myths, folktales, poetry, autobiographies, and short novels. Students learn to write well-structured paragraphs and short essays. Direct grammar instruction is provided as necessary, including a review of basic verb tenses and other structures determined by needs assessment. Students improve their speaking and listening skills through class discussion and by preparing and presenting short speeches and skits throughout the year.
Advanced Intermediate Language Arts  ZSL121/122  1 Cr

*DPI level 3 -3.9.* This course is for those students who have progressed beyond Intermediate Language Arts, but are not yet prepared for Advanced Language Arts. They engage in reading a variety of authentic texts (non-fiction articles, novels, plays, and poetry), reviewing verb tenses and grammatical structures on an as-needed basis, present speeches and dramatic interpretations, keep literature response journals, write personal narratives, and progress from writing paragraphs to multi-paragraph essays.

Advanced Language Arts  ZSL141/142  1 Cr

*DPI level 3.5 – 4.5.* Advanced English language learners strengthen reading, discussion, writing and critical thinking skills by studying autobiographies, short stories, novels, and non-fiction articles. Students keep literature response journals, make oral presentations, and write personal accounts and critical essays. Significant emphasis is placed on enhancing literacy skills and language fluency, as well as developing, organizing and revising a multi-paragraph essay.

Literacy Skills  ZSL161/162  1 Cr  Grades 9-10

*DPI level 4 – 5.9.* Literacy Skills is offered each semester for English language learners in grades 9 or 10 who are enrolled in mainstream English 9 and US History 9 courses. Students polish English reading and writing skills. Emphasis is placed on how to approach literature and write cohesive, concise essays. Other components include: language fluency, study skills, and how to use school resources. The course provides students with support to help them succeed in mainstream English and social studies courses.

Advanced Literacy Skills  ZSL171/172  1/2 or 1 Cr  Grades 11-12

*DPI level 4 - 5.9.* Advanced Literacy Skills is offered each semester for English language learners in grades 10, 11, or 12 who are enrolled in mainstream English 10 and Western Civilization courses. Students polish English reading and writing skills, and engage in critical analysis. Emphasis is placed on vocabulary building, study skills and how to use school resources. The course provides students with support to help them succeed in mainstream English and social studies courses.

Listening/Speaking  ZSL177/178  1/2 Cr  Elective 9-12

*DPI level 1-3* This elective is offered to help beginning and intermediate students who want to improve their oral English. Students will listen to stories, watch films, and engage in oral reading, analysis, and debates. They will also have the opportunity to give original speeches and perform plays and monologues as well as other interpretive works.

Reading/Writing Workshop  ZSL187/188  1/2 Cr  Elective 9-12

*DPI level 3 – 4.5* This elective is designed to improve the literacy skills of intermediate or advanced level students. Focus will be placed on academic writing skills, sentence fluency, and critical reading of expository texts. Students will advance from writing short paragraphs to multi-paragraph critical essays. They will analyze and produce different types of academic writing, ranging from personal narrative, description, compare/contrast, persuasion, and short research papers. Upon completion of the course, students will be prepared for the rigors of writing in a mainstream class.

Read 50-1  RDG151/152  1 Cr  Elective 9-12

*DPI level 3 – 4.9.* An intensive reading program designed for students reading 3 to 6 years below grade level. Students receive instruction to address their individual needs through adaptive and instructional software, high interest literature and direct teacher instruction in reading/spelling skills and strategies. Content area reading skills such as: use of context cues and identification of main ideas are also taught.  DPI level 3 required; level 2 acceptable only with teacher recommendation.

Read 50-2  RDG251/252  1 Cr  Elective 10-12

*DPI level 3 – 4.9.* An intensive reading program designed for students reading 3 to 6 years below grade level. Students receive instruction to address their individual needs through adaptive and instructional software, high interest literature and direct teacher instruction in reading/spelling skills and strategies. Content area reading skills such as: use of context cues and identification of main ideas are also taught.  DPI level 3 required; level 2 acceptable only with teacher recommendation.
SOCIAL STUDIES COURSES:

Newcomer Social Studies  
ZSL471/472  
DPI level 1 – 1.5. Course content focuses on developing English language acquisition while learning geography and early American history from the age of exploration to the Civil War.

U.S. History I  
ZSL221/222  
DPI Level 1.5 - 2.5. The content of this course covers pre-European exploration of North America through the U.S. Civil War. Other social studies areas such as: Economics, Geography, and Political Science are incorporated into the course as they relate to each unit. Skills developed include: reading, writing, oral expression, listening, test taking, study skills and cooperative group work.

U.S. History II  
ZSL231/232  
DPI Level 2.5- 3.5. Course content includes a basic review of world and U.S. Geography. Exploring U.S. History from slavery and the Civil War through the 1920s. Students are expected to make several oral presentations, improve their critical thinking skills and their academic reading and writing. Students also read articles from Junior Scholastic and UpFront magazines, to facilitate connections between the past and more contemporary issues and events.

World History  
ZSL241/242  
*Prerequisite: Successful completion of US History I or with ELL history teacher’s recommendation.  
DPI Level 2 – 3  This course provides students with an overview of World Geography, as well as the diverse political, social, economic and cultural themes from ancient civilizations through WWII. In addition, students make connections between the past and more contemporary (late 20th-early 21st century) world events and issues. Emphasis is placed on relating students’ own cultural heritage to the topics of study. English language learning and academic skills will be integrated into course content. The course is ideal for students at the advanced beginner or low intermediate levels.

US Government and Law  
ZSL251/252  
DPI Level 3.5 – 4.5. Students review world and U.S. Geography before embarking on a detailed analysis of the three branches of U.S. government, the different levels of government, and the constitution and amendments. In addition to studying the structures and historical foundations of our government, students examine landmark Supreme Court cases, current legal debates, and political issues. Students improve their academic reading and writing skills and are required to write a short research paper.

NEWCOMER SCIENCE:

Newcomer Science  
ZSL461/462  
DPI level 1 – 1.9. Content focuses on developing English language acquisition through the context of Earth Science, Ecology, Astronomy, basic Biology and environmental issues. Emphasis is placed on acquisition of scientific vocabulary and on cultivating a passion for scientific inquiry.

Topics in Science  
ZSL411/412  
DPI level 1.5 – 2.9. This course allows students with limited English proficiency to continue to develop their communicative and academic English while being exposed to topics in Biology, Physics, Chemistry, Earth Science and the environment. Following an inquiry-based model, students choose topics, plan investigations and learn about their selected topics through research and teacher-facilitated activities. Students will report their findings and share what they have learned via class presentations.

Introduction to Biology  
ZSL421/422  
DPI level 2.5 – 3.9. Intro to Biology is an activity oriented course that involves English language learners in critical thinking and problem solving in science. Students construct knowledge within the context of Biology while they acquire English cognitive academic language. Some of the topics covered during the year include: Cellular Biology, Genetics, kingdoms, and animal structure and function with an emphasis on humans.
NEWCOMER COURSES:

**Newcomer Math - Algebra Skills**  
ZSL491/492  
1 Cr  
*DPI Level 1 – 1.9.* Through the use of manipulatives and textbook exercises, this course gives the ELL student practice in basic arithmetic skills, concepts, and math language skills. The course also introduces the student to a variety of topics, some of which are included in Algebra 1.

**Business Courses:**

**Applied Computer Keyboarding**  
BUS491/492  
1 Cr  
Elective 9-12  
*Recommended for ESL students, DPI level 1.5-3.5.*  
Applied Computer Keyboarding is a one-year course which is designed to develop keyboarding skills on a computer keyboard. Students will use proper keyboarding techniques and English grammar concepts while keying a variety of personal and business documents. This is a great class to integrate and reinforce the English language.

**Elective Courses:**

**Latin American Literature and Culture I**  
ZSL613  
1/2 Cr  
Elective 9-10  
*DPI Level 1 – 4.* This course is conducted completely in Spanish. It provides the context for the development of reading and literary analysis skills with a focus on transferable literacy skills. Students engage in reading and discussing a variety of authentic texts as they explore the world of U.S. Latino and Latin American literature.

**Latin American Literature and Culture II**  
ZSL623  
1/2 Cr  
Elective 10-12  
*Prerequisite: Successful completion of Latin American Literature and Culture I  DPI Level 1 – 5.*  
This course continues to provide the context for the development of reading and literary analysis skills for students who have successfully completed Latin American Literature and Culture I. While the course is conducted completely in Spanish, emphasis is also given to transferable literacy skills. Students engage in reading a variety of authentic texts as they explore the world of Latin American and U.S. Latino literature. Discussion and a variety of written assignments including literary analysis, academic essays and creative writing will be emphasized.