PROGRAM OF STUDIES
AND
REGISTRATION GUIDE
2015-2016

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MAKING CHOICES
Decision-making is a process that needs to be taken seriously. To make good decisions, it is important that you gather enough information and understand the guidelines within which you must operate. Staff at RAHS feel it is important that you do the following:

- Discuss your plans with parents, counselors, teachers and anyone you know in the career you are considering.
- Be aware of required courses for the career and school you are considering.
- Participate in courses that will satisfy your current interests and curiosity, as well as develop your special skills and talents.
- Always keep graduation requirements, both state and local, in mind as you plan.
- Understand that you (the student) are responsible for completing the required courses and credits for graduation.

SPECIAL CLASS ASSIGNMENTS
Some students qualify for advanced placement, enriched/honors and special education classes. Counselors and teachers make recommendations for these classes. If you feel any are appropriate for you, discuss with your counselor.

PREREQUISITES
After course titles in the individual departments, prerequisites may be listed. Reasons may be: sequence courses, instructor approval, must be certain grade level. Some courses require you to have taken a course previous to enrollment in the one you are considering. For example, Spanish 3 cannot be taken before Spanish 2. Other courses just indicate prerequisite and name the course that must have been taken. For example: AP Statistics I & II, Prerequisites: Complete Algebra II and Geometry.

COURSE REGISTRATION/DROP
Students register for the full school year in the early spring. They are required to take a minimum of six credits each semester or 12 for the year. Because registration directly influences the school’s schedule, students will need to fulfill their requests unless the:

* student is misplaced in the class (determined by the teacher)
* student fails to meet prerequisites
* student with 13-14 credits elects to drop a course
  - student needs adjustment due to enrollment in post-secondary options
  - student has duplications, irresolvable schedule conflicts, or a credit or course imbalance

* Once the semester begins, changes are only made for these three reasons within the first five days. Students will have an opportunity to make changes prior to each semester.

PASS/NO CREDIT
All required and elective courses are graded A to NC or I. However, one elective single course per semester or one block class per year may be taken on a pass/fail basis per school year. A “Pass” grade means a credit is awarded which has no effect on the grade point average. A “No Credit” grade means no credit is given and the “NC” counts 0.0 in the G.P.A. as a failed course. Students should always confer with the teacher to be clear about the class expectations for earning a “P” grade. Students should be aware that colleges sometimes look at P’s negatively. Please check with the individual college of your choice for their expectations. Students taking a class pass/no credit will not be eligible for an academic letter for the school year in which they take the class.

A course taken as pass/no credit cannot be used to meet specific required credits. A course taken as pass/no credit can only be used to meet the elective credit category.

A student requesting to take a course P/NC must obtain a form, “Request for Pass-No Credit Basis,” from the guidance office. It is the student’s responsibility to obtain the required signatures and to return the form to the teacher for that class by Friday of the eighth week of the semester. P/NC status will not be granted after the stated deadline. At the end of the semester, the teacher notifies the data processing clerk of the student’s P/NC status.
**ADVANCED PLACEMENT (AP)**

Advanced Placement, a program sponsored by the College Board, gives high school students the opportunity to take college-level courses in high school. Based on scores of AP Exams, given in May of each year, students may earn college credit, advanced placement in college, or both.

AP tests are scored on a 1-5 scale:
- 5 = extremely well qualified
- 4 = well qualified
- 3 = qualified
- 2 = possibly qualified
- 1 = no recommendation

Although each college determines its own policy for awarding AP credit, most colleges give advanced placement for scores of 3 or better and most also give credit for scores of 4 or 5.

**Process for enrolling in AP classes:**

Armstrong offers three Pre-AP and 18 AP courses. Most of these courses are self-select, however, students must complete an AP Registration Form. Some courses require additional prerequisite coursework.

The following courses require only an AP Registration Form to enroll: Pre-AP English, AP English Language, AP English Literature, AP U.S. History, AP Psychology, AP Human Geography, AP World History, AP Macroeconomics, AP Microeconomics, AP U.S. Government and Politics, AP Biology, AP Environmental Science, and AP Music Theory.

The following courses require an AP Registration Form and other course prerequisites (see this Registration Guide for specific course prerequisites): AP Chemistry, AP Physics, AP Calculus, AP Statistics, AP Spanish Language, AP Spanish Literature.

**Please note:** All students who enroll in Pre-AP and AP courses must sign a Letter of Intent in which they:
1) agree to do all summer work associated with a course, 2) acknowledge, along with a parent, they have made an informed decision regarding enrollment in AP course(s), and 3) understand that the expectation is that if a student commits to AP, he or she will not be able to drop the class.

**Timeline for enrollment in Pre-AP/AP classes:**
- January 21: AP registration form available.
- January 27-29: Counselors meet with students in large groups to distribute registration information.
- February 3-5: Students register for all 2015-16 courses, including AP.
- February 3-5: Deadline to turn in AP registration form.

**Note:** Sophomore students will only be allowed to register for one AP course (U.S. History or Biology), in addition to Pre-AP English. Special permission may be granted on an individual basis for a student to enroll in all.

**POST-SECONDARY ENROLLMENT OPTIONS ACT**

The Post-Secondary Enrollment Options Act was signed into law as part of the 1985 Omnibus Education Aids Bill. It allows high school junior and senior students to attend a college, either full-time or part-time, at no cost to the student. Colleges carefully evaluate high school rank and test scores when considering high school students for enrollment. Generally, juniors must be in the top one-third of their class, while seniors must be in the top half. Tenth grade students are now eligible to enroll in one Career and Technical Education (CTE) course on a college campus through the PSEO program. If a student earns a C in the first semester, she/he can take more courses. Transportation funds are available for low income students who want to participate in PSEO. In order to be eligible, a 10th grade student must have taken the 8th grade MCA reading test in the 8th grade and have met the composite proficiency level of "meets or exceeds." Information about these options is available in the guidance office. Online PSEO courses are available.

**ONLINE LEARNING AND CREDIT BY ASSESSMENT**

Students in the Robbinsdale Area Schools have options for earning course credits during the regular school year and throughout the summer months including Online Learning and Credit by Assessment. Information about these options is available in the guidance office.
GENERAL REGISTRATION INFORMATION, continued

Credit by Assessment provides an opportunity for students who feel they have already met the course outcomes to demonstrate their knowledge and skills through a series of prepared assessments. Online learning allows students to earn course credits through an online learning provider as long as the provider has been approved by the Minnesota Department of Education. Online courses should be approved by the district 30 days before the start of the class.

BLEND (HYBRID) COURSE INFORMATION
Robbinsdale Armstrong High School now offers blended courses. Blended courses, sometimes referred to as hybrid courses, combine the best parts of face-to-face instruction with the flexibility of rigorous online instruction.

What are blended courses?
Blended courses combine online learning with face-to-face instruction. Students do not meet in the classroom every day. For example, a blended course might meet on Monday, Wednesday and Friday, but not Tuesday and Thursday. The number of face-to-face meetings varies by course. Some course content will be delivered online using a learning system called Schoology. Many assignments are completed online.

Are blended courses easier or harder than other courses?
Blended courses offer the same challenge in a different format. The amount of time and work will be equal to the traditional course.

What are the benefits of blended courses?
Blended courses provide digital content and flexibility. This fits the learning style of some students better than traditional courses. Students learn in a format used frequently at colleges and work sites.

Should I take a blended course?
Successful students in blended courses have the following qualities/resources:
- I am self motivated and can work independently.
- I can read well and express myself clearly in writing.
- I am good at time management, especially online.
- My technology skill level is good, especially using the internet and troubleshooting.
- I have reliable internet access outside of school.

Armstrong High School: Which blended courses are available at my school?

<table>
<thead>
<tr>
<th>Course Name(s)</th>
<th>Course Number(s)</th>
<th>Credits</th>
<th>Periods</th>
<th>Grade(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Writing - Poetry and Fiction (Blended)</td>
<td>1710</td>
<td>1</td>
<td>1 or 7</td>
<td>11-12</td>
</tr>
<tr>
<td>Economics (Blended)</td>
<td>2710</td>
<td>1</td>
<td>1 or 7</td>
<td>12</td>
</tr>
<tr>
<td>English 12 I &amp; II (Blended)</td>
<td>1798-1799</td>
<td>2</td>
<td>1 or 7</td>
<td>12</td>
</tr>
<tr>
<td>Health (Blended)</td>
<td>5704</td>
<td>1</td>
<td>1 or 7</td>
<td>10</td>
</tr>
<tr>
<td>Physical Education (Blended)</td>
<td>6017</td>
<td>1</td>
<td>1 or 7</td>
<td>10-12</td>
</tr>
<tr>
<td>Pre-Calculus I / Pre-Calculus II (Blended)</td>
<td>4022 / 4023</td>
<td>2</td>
<td>1 or 7</td>
<td>11-12</td>
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<tr>
<td>Psychology (Blended)</td>
<td>2711</td>
<td>1</td>
<td>1 or 7</td>
<td>11-12</td>
</tr>
</tbody>
</table>

MAKING FINAL PLANS
It is recommended that students see counselors for final discussion of long-range goals and means to achieve these goals. It is very important to make wise choices now!

Registration will be final if there is adequate enrollment to offer all courses a student selects, if there is adequate space available in the courses chosen, and if a student continues to qualify for each course by completing the prerequisite course, if any, with a satisfactory grade. Be prepared to list alternative courses. If students do not register on time, classes will be chosen for them.

GRADUATION REQUIREMENTS

Please see your guidance counselor if you have questions regarding credits or graduation requirements.
STATE GRADUATION ASSESSMENT REQUIREMENTS

All students graduating must meet state graduation assessment requirements. These requirements are dependent on when the students were first enrolled in grade 8.

What are routes to meeting state graduation assessment requirements?

**Grade 11 Student in School Year 2014-2015 (first enrolled in grade 8 in 2011-2012)**

These students will take the grade 11 ACT Plus Writing (college entrance exam) during the statewide administration on April 28, 2015 to meet graduation assessment requirements in writing, reading, and mathematics.

However, if a student is unable to participate in the grade 11 ACT Plus Writing in 2014-15, students can meet the reading, mathematics, and writing graduation assessment requirements through any combination of the following three options:

1. Meet graduation assessment requirements through Graduation-Required Assessments for Diploma (GRAD) in reading, mathematics and written composition, which include:
   - Earning a proficient score. If students are proficient (achieve Meets or Exceeds the Standards) on the grade 10 Reading Minnesota Comprehensive Assessment (MCA) and the grade 11 Mathematics MCA, they have met their graduation assessment requirement for that subject.
     - This also applies to students who take the high school MCA-Modified or Minnesota Test of Academic Skills (MTAS) in place of the MCAs.
   - Earning a passing score on the Written Composition GRAD or Reading and Mathematics GRAD retests.
     - The Minnesota Alternate Assessment: Writing can still be administered to students who need an alternate assessment to meet the requirements for writing.
   - Meeting GRAD alternate routes, which may include the following:
     - Receive an individual passing score (for students on an IEP or 504 plan)
     - Receive an English Learner (EL) exemption
     - Pass an accountability assessment for another state approved by MDE (reciprocity)

2. Students can take the ACT assessment for college admission; the WorkKeys job skills assessment, the Compass college placement test, or the Armed Services Vocational Aptitude Battery (or ASVAB) to meet graduation assessment requirements in reading, mathematics, and/or writing.

3. A school district may also substitute a score from an alternative, equivalent assessment to satisfy the graduation assessment requirements.

**Grade 10 Student and Younger in School Year 2014-2015 (first enrolled in grade 8 in 2012-2013 and later)**

These students will meet graduation assessment requirements through participating in the series of career and college assessments, which will be first administered in school year 2014-15:

- Take Grade 8 ACT EXPLORE career and college assessment (Note: this assessment was not available statewide for grade 8 students in school year 2013-14).
  
  AND

- Take Grade 10 ACT PLAN career and college assessment.
  
  POSSIBLY

- Take ACT Compass (college placement diagnostic assessment).
  - Students not yet academically ready for a career or college assessment based on their growth in academic achievement between grades 8 and 10 (as determined by performance on the available grade 8 and 10 assessments) must take the ACT Compass before taking the ACT Plus Writing in the spring.
  
  AND

- Take Grade 11 ACT Plus Writing statewide administration (college entrance exam).

GRADUATION: It is the policy of Independent School District 281, Robbinsdale Area Schools, to require 46 credits for graduation.
**Graduation Requirements for Class of 2016:**

- **English**: 8 semester credits
- **Social Studies**: 8 semester credits (1 year each of Geography, U.S. History, World History; 1 semester each of Economics and Government)
- **Science**: 6 semester credits (1 year of Biology; 1 year of either Physics or Chemistry)
- **Mathematics**: 6 semester credits (must include Algebra II)
- **Physical Education**: 2 semester credits (1 semester grade 9 PE and 1 semester grade 10 PE)
- **Health**: 1 semester credit
- **Arts Education**: 1 semester credit (see list of Arts Education credits)
- **Electives**: 14 semester credits

**46 total credits**

**Graduation Requirements for Class of 2017 and Beyond:**

- **English**: 8 semester credits
- **Social Studies**: 8 semester credits (1 year each of Geography, U.S. History, World History; 1 semester each of Economics and Government)
- **Science**: 6 semester credits (1 year of Biology; 1 year of either Physics or Chemistry)
- **Mathematics**: 6 semester credits (must include Algebra II)
- **Physical Education**: 2 semester credits (1 semester grade 9 PE and 1 semester grade 10 PE)
- **Health**: 1 semester credit
- **Arts Education**: 2 semester credits (see list of Arts Education credits)
- **Electives**: 13 semester credits

**46 total credits**

**Arts Education Credits:**

- 7600 Drawing I
- 7710 Drawing and Painting II & III
- 7846 Drawing and Painting Seminar
- 7601 Ceramics I (Clay)
- 7748 Ceramics II & III (Clay)
- 7847 Ceramics Seminar
- 7602 Graphic Art and Design
- 7646 Jewelry I
- 7711 Jewelry II
- 7645 Beginning Beadworking
- 7749 Advanced Beadworking
- 7412 Intro to Art
- 7712 Mixed Media Art
- 1704 Acting
- 1705 Creative Writing - Poetry and Fiction
- 1710 Creative Writing - Poetry and Fiction (Blended)
- 1746 Introduction to Theater
- 1747 Dance Techniques for the Stage
- 9641 Computer Graphic Design I
- 9740 Computer Graphic Design II
- 9642 Digital Photography
- 9841 TV & Audio/Video Production
- 7404-7405 Freshman Women's Choir I & II
- 7406-7407 Freshman Men's Choir I & II
- 7442-7443 Freshman Choir/Freshman Orchestra I & II
- 7440-7441 Freshman Choir/Freshman Band I & II
- 7740-7741 Varsity Women's Choir I & II
- 7840-7841 Varsity Women's Choir/Concert Band I & II
- 7713-7714 Varsity Women's Choir/Philharmonic Orchestra I & II
- 7742-7743 Varsity Men's Choir I & II
- 7842-7843 Varsity Men's Choir/Concert Band I & II
- 7715-7716 Varsity Men's Choir/Philharmonic Orchestra I & II
- 7806-7807 Concert Choir I & II
- 7844-7845 Cantori I & II
- 7402-7403 Freshman Band I & II
- 7808-7809 Concert Band I & II
- 7444-7445 Freshman Band/Freshman Choir I & II
- 7801-7802 Concert Band/Varsity Men's or Women's Choir I & II
- 7701-7702 Symphonic Band I & II
- 7452-7453 Freshman Orchestra I & II
- 7703-7704 Symphony Orchestra I & II
- 7705-7706 Philharmonic Orchestra I & II
- 7446-7447 Freshman Orchestra/Freshman Choir I & II
- 7707-7708 Philharmonic Orchestra/Varsity Men's or Women's Choir I & II
- 7744-7745 Music Theory I & II
- 7804-7805 AP Music Theory I & II
- 7746 Music Café

**District 281 Policy for Reporting Standardized Test Scores on Student Transcripts:**

Students need to request that a copy of their ACT/SAT scores be sent to the school of their choice. These include optional college admission tests (ACT, SAT) and practice tests (PLAN, PSAT).

When applying to colleges, students should check to see if their colleges want an official ACT or SAT test score from the testing organization, American College Testing or The College Board. Some colleges want official score reports while others accept the scores from the high school transcript.
PLAN – This test is given in early November to high school sophomores as practice for the ACT and to provide career interest information. Four tests are given in English usage, social studies reading, math usage, and natural sciences reading. Four separate scores are reported plus a composite score averaging the tests. No charge to students.

ACT (American College Testing Program) – Four 35- to 40-minute tests are given in academic areas of English usage, social studies reading, math usage, and natural sciences reading. Students receive four separate scores plus a composite score averaging the tests. We encourage you also to take the ACT plus writing test. Almost all colleges and universities in the United States accept the ACT. It is given on five dates throughout the year: October, December, February, April and June. Specific dates are available in the guidance office. Please note that the registration deadlines for these tests are about one month earlier than the test date. All juniors will take the ACT test at Armstrong in the spring of their junior year.

PSAT/NMSQT (Preliminary Scholastic Assessment Test and National Merit Scholastic Qualifying Test) – Because this is the National Merit Scholarship Qualifying Test, academically superior juniors are encouraged to take the test. Those juniors in each state whose combined verbal, math and writing scores rank at the 99 percentile qualify for the next level of the National Merit competition. Those who rank from above the 98 percentile down to the 96 percentile receive a commendation, but do not continue in the Merit competition. This test is also for juniors who want to compete in the special scholarship programs for African American students. Academically superior sophomores may want to take the PSAT for practice; however, only PSAT scores taken in the junior year qualify for the National Merit Programs.

SAT I (Scholastic Aptitude Test) – This is a three-hour and 45-minute test that measures critical reading, mathematical reasoning, and writing skills. It is given on seven dates throughout the year: October, November, December, January, March, May and June. Specific dates are available in the guidance office; however, SAT I and SAT II cannot be taken on the same day. Please note that the registration deadlines for these tests are about one month earlier than the test date.

SAT II – These are one-hour tests measuring knowledge in specific subject areas. Some four-year colleges require three achievement tests, given the same dates as SAT. Tests are given in a variety of subject areas. Specific dates are available in the guidance office; however, SAT I and SAT II cannot be taken on the same day. Please note that the registration deadlines for these tests are about one month earlier than the test date.

AP (Advanced Placement Tests) – Most are three-hour examinations based on full-year college-level courses. A few are two-hour exams based on half-year college courses. Exams are given once a year in May. Currently Armstrong offers: Biology, Environmental Science, Calculus, Chemistry, English Language, English Literature, Government, Human Geography, Macroeconomics, Microeconomics, Music Theory, Physics, Psychology, Spanish Language, Spanish Literature, U.S. History, World History, and Statistics.

ARMSTRONG HIGH SCHOOL CAREER CENTER
The Career Center is available to help students prepare for their future. Services and resources available include: 1) literature on 2-year and 4-year colleges, 2) reference books on college majors, scholarships, financial aid, and entrance tests, 3) technical school literature, 4) computers to search for career and college choices, 5) scholarship information and forms, and 6) ACT and SAT registration information. The Career Center is open Monday through Friday, from 7:15 a.m. to 2:30 p.m. Students and parents are invited to call the guidance office at 763-504-8819 for more information.

FAMILY CONNECTION
Family Connection, powered by Naviance, is a program that assists counselors and students in managing the college and career planning process. Students are encouraged to utilize the Family Connection website throughout their high school years. Go to https://connection.naviance.com/ra, or go through the school website and click on the Guidance Office tab to access the Family Connection link. To log in: student username = student’s ID number, and student password = student’s 6-digit birthday.
ACADEMIC SUPPORT SERVICES

Please contact the guidance office for more information on the following support services.

CREDIT RECOVERY OPTIONS

“A” School: An in-house alternative high school program that helps students recover credits in order to graduate. It is specifically designed for students who struggle with the traditional school model and would benefit from an alternative learning environment. Students interested in the program must apply and go through the selection process.

AHSPlus: An after-school program setting within Robbinsdale Armstrong High School for students who have credits to recover in order to achieve graduation. Any high school student, including those not yet 16 years of age, who has attended and not passed a core subject course in English, mathematics, science and/or social studies is eligible to attend. Students must have attended the class before they can make it up in the AHSPlus program. The AHSPlus program operates after school on Tuesdays, Wednesdays and Thursdays from 2:20-4:00 p.m. in room 350.

GED (General Equivalency Diploma): The Robbinsdale Adult Academic Program located in New Hope provides preparation for the GED. A certified staff of teachers helps students gain the knowledge to pass the GED test. Students cannot earn a GED until their high school class has graduated. Call 763-504-8300 to schedule an appointment.

Summer School: A three-week summer session generally available for freshmen and sophomores. An additional computer-based program is available for upper classmen. Applications are available May 1.

PROGRAMS/RESOURCES

Advisory: All students are assigned an Advisory teacher and generally stay with the same Advisory teacher all four years of high school. Advisory is used to communicate and interpret school policies, procedures and processes, distribute midterm/quarter progress reports, and disseminate information about programs, activities, and events.

After-School Math Help: The Math Resource Room is open for math help on Wednesdays after school. Math help is also available after school in the Media Center on Tuesdays and Thursdays during ELT.

AVID (Advancement Via Individual Determination): An in-house academic support program that prepares students for college eligibility and success. The program targets academically average students and places them in advanced courses, while supporting them in the AVID elective. AVID services students who are traditionally underrepresented on four-year college campuses. Students interested in the program must apply and go through the selection process.

College Possible: A nonprofit organization dedicated to helping promising low-income young people prepare for and earn admission to college. This program’s mission is to identify low-income juniors and seniors who have the motivation and potential for college, and then provide them with four critical services: 1) ACT and SAT test preparation, 2) intensive guidance in preparing college applications, 3) help in obtaining financial aid, and 4) guidance in transition to college. Applicants should have earned a 2.5 GPA, passed the basic standards tests, and demonstrated a solid attendance record.

ELT (Extended Learning Time): A program open to all students who are struggling with current course work and need extra time or help to complete assignments. ELT help sessions are offered Tuesdays and Thursdays after school in the Media Center. Both staff and peer tutors are available to assist students in their studies.

Link Crew: A high school transition program that welcomes freshmen and helps them feel comfortable throughout their first year of high school. Built on the belief that students can help students succeed, Link Crew trains members of the junior and senior classes to be Link leaders. As positive role models, Link leaders are motivators, leaders and teachers who guide the freshmen to discover what it takes to be successful during the transition to high school and help facilitate freshman success.

Resource Rooms: Available to students during their study halls. Students must get a pass from a teacher to use a resource room and to be excused from their study hall.
The Armstrong schedule contains a combination of block classes valued at two credits per semester, and single or traditional classes valued at one credit. The minimum credit load is six credits per semester.

Student registration is done on a one-time, all-year basis. The final decision as to which courses will be offered in block or single format will be made following registration.

### ARMSTRONG REGULAR CLASS SCHEDULE (Monday, Tuesday, Thursday, Friday)

<table>
<thead>
<tr>
<th>7-PERIOD</th>
<th>LUNCH PERIODS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 7:20 – 8:10</td>
<td>Lunch A</td>
</tr>
<tr>
<td>2 8:16 – 9:03</td>
<td>Class: 10:02 – 10:31</td>
</tr>
<tr>
<td>4 10:02 – 10:49</td>
<td>Class: 11:05 – 12:21</td>
</tr>
<tr>
<td>5 10:55 – 12:21 (Includes Assigned Lunch)</td>
<td>Lunch B</td>
</tr>
<tr>
<td>7 1:20 – 2:10</td>
<td>Lunch C</td>
</tr>
</tbody>
</table>

#### BLOCK

| 1 / 2 7:20 – 9:03 | Lunch A     |
| 2 / 3 8:16 – 9:56 | Class: 10:02 – 10:49 |
| 4 / 5 10:02 – 12:21 (Includes Lunch A)| Lunch B         |
| 6 / 7 12:27 – 2:10| Lunch C        |

*Lunch period is determined by Period 5 teacher schedule.

### ARMSTRONG ADVISORY CLASS SCHEDULE (Wednesday)

<table>
<thead>
<tr>
<th>7-PERIOD</th>
<th>LUNCH PERIODS*</th>
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<tbody>
<tr>
<td>Adv. 7:20 – 7:45</td>
<td>Lunch A</td>
</tr>
<tr>
<td>1 7:51 – 8:34</td>
<td>Class: 10:18 – 10:44</td>
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<tr>
<td>2 8:40 – 9:23</td>
<td>Lunch: 10:46 – 11:16</td>
</tr>
<tr>
<td>3 9:29 – 10:12</td>
<td>Class: 11:18 – 12:30</td>
</tr>
<tr>
<td>4 10:18 – 11:02</td>
<td>Lunch B</td>
</tr>
<tr>
<td>5 11:08 – 12:30 (Includes Assigned Lunch)</td>
<td>Class: 11:08 – 11:40</td>
</tr>
<tr>
<td>6 12:36 – 1:19</td>
<td>Lunch C</td>
</tr>
<tr>
<td>7 1:25 – 2:10</td>
<td>Lunch D</td>
</tr>
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#### BLOCK

| Adv. 7:20 – 7:45| Lunch A     |
| 1 / 2 7:51 – 9:23| Class: 10:18 – 10:49 |
| 2 / 3 8:40 – 10:12| Lunch: 10:46 – 11:16 |
| 4 / 5 10:18 – 12:30 (Includes Lunch A)| Lunch B         |
| 5 / 6 11:08 – 1:19 (Includes Assigned Lunch)| Class: 11:08 – 11:40 |
| 6 / 7 12:36 – 2:10| Lunch C        |

*Lunch period is determined by Period 5 teacher schedule.

Rev. 8/2014
COURSE DESCRIPTIONS

7600 DRAWING I* (10-12)
An introductory course in drawing for the beginning art student. Students will improve existing drawing skills with an emphasis on careful observation. Students will use traditional methods, tools, materials and the computer to create art works that are descriptive, expressive and inventive. **Major Course Goals:** Students will produce works of art that exhibit a wide variety of skills, and experiment with creative graphic ideas. **Evaluation:** Evaluation will be by portfolio review, student checklist, teacher evaluation, critique, and weekly homework sketchbook assignments. *Meets Arts Education requirement.

7710 DRAWING AND PAINTING II & III* (11-12) Prerequisite: Drawing I
Students with a high interest in art and success in Drawing I may register for this course. This course extends and enriches the fundamentals learned in Drawing I. This course will emphasize painting. Traditional methods and tools will be used to produce paintings that are representational, expressive and inventive. The computer will also be used as a painting and design tool. Research project related to painting may also be assigned. **Major Course Goals:** Students will produce works of art that exhibit a wide variety of painting skills. **Evaluation:** Evaluation will be by portfolio review, student critique, student checklist, teacher evaluation, critique, and weekly homework sketchbook assignments. *Meets Arts Education requirement.

7846 DRAWING AND PAINTING SEMINAR* (11-12) Prerequisites: Complete Drawing and Painting I/II/III and teacher signature
**Major Course Goals:** Students will be expected to produce portfolio-quality works in a variety of media. *Meets Arts Education requirement.

7601 CERAMICS I (CLAY)* (10-12)
An introductory course in ceramics with emphasis on pottery for the beginning student. The clay unit involves the production of functional pottery such as bowls, cups, teapots and vases, using a kick wheel, as well as some hand building. Students will be challenged and motivated to create quality pots. **Major Course Goals:** To develop a sense of aesthetics in three-dimensional form. Students will experience techniques used by the potter: wheel-thrown pieces along with glazing and firing experience. **Evaluation:** Project evaluation is based on concept or goal of the piece, craftsmanship, organization of form, individual expression and student/teacher evaluation. A checklist and actual produced work serve as the “portfolio” for this experience. *Meets Arts Education requirement.

7748 CERAMICS II & III (CLAY)* (11-12) Prerequisite: Complete Ceramics I (Clay) with an “A” average or teacher signature
The emphasis in the course is on greater depth of throwing techniques, hand building proficiency and decorative techniques. Functional pottery will be created with aesthetics taken into consideration. Students will continue to be encouraged to experiment with individual ideas and a variety of materials. Researching artists’ work and inspirations will also be included. Students need to be dedicated and serious about making art.
ART, continued

**Major Course Goals:** Students will be able to: 1) create a variety of pottery using both thrown and hand building techniques, 2) develop a "style" to their work through an understanding of personal expression and aesthetics, 3) use a variety of decorating techniques which will enhance their pottery, 4) incorporate ideas from both ancient and contemporary cultures.

**Evaluation:** Based on a portfolio of work. Students will complete twelve pieces minimum for evaluation by the instructor. Students will keep a sketchbook to record work, write critiques, and develop ideas.

*Meets Arts Education requirement.

7847 CERAMICS SEMINAR*  Prerequisites: Complete Ceramics I/II/III (Clay) with an “A” average and teacher signature

**Major Course Goals:** Students will be expected to produce portfolio quality work in clay, and develop a "voice" through their work. Students will create digital photos of their best work and are required to visit several galleries or museums. Each visit is followed up with a written critique of the exhibited pottery. Work is graded as a whole. Number of projects vary. Students need to be dedicated and serious about making art.

*Meets Arts Education requirement.

7602 GRAPHIC ART AND DESIGN* (10-12)

This course is designed to introduce students to the advertising arts, graphic design, and commercial illustration. An emphasis will be placed on learning the elements and principles of design. Projects include such things as logo design, lettering composition, computer-generated design/illustration, and pen and ink illustration techniques such as pointillism, hatching, and crosshatching.

**Major Course Goals:** Students will use traditional art media and tools and the computer to create graphic designs, illustrations and product designs.

**Evaluation:** Evaluation will be by portfolio review, teacher assessment, group critique and checklists.

*Meets Arts Education requirement.

7646 JEWELRY I* (9-12)

This course explores craft techniques of making jewelry in metals and plastics. Students learn how to design creative and original pieces of jewelry. (Basic drawing skills will be used.) Students learn: fabricating, casting, riveting, and will make at least two rings, two key chains, and a pendant.

**Major Course Goals:** Students will be able to design and create rings, earrings, pendants, key rings, and pins.

**Evaluation:** Based on skills mastered such as sawing, filing, buffing, and soldering. Also craftsmanship, design, and quality of finished projects.

*Meets Arts Education requirement.

7711 JEWELRY II* (10-12)  Prerequisites: Student must have an “A” average in Jewelry I and instructor’s signature

Advanced study is done on an individual basis and a written final.

*Meets Arts Education requirement.

7645 BEGINNING BEADWORKING* (9-12)

This is an introductory course that will explore jewelry making through the use of beads. Projects include: macramé, the creation of polymer clay beads, various needle and thread bead weaving techniques using seed beads, wire jewelry, as well as exploring the cultural, historical and social significance of beads throughout history.

**Major Course Goals:** Students will produce finished pieces of bead jewelry that exhibit a wide variety of techniques and skills.

**Evaluation:** Based on skills mastered, craftsmanship, and design of finished projects.

*Meets Arts Education requirement.

7749 ADVANCED BEADWORKING* (10-12)  Prerequisites: Students must have an “A” average in Beginning Beadworking and instructor’s signature

Advanced study done on an individual basis.

**Major Course Goals:** Students will produce finished pieces of bead jewelry that exhibit a wide variety of advanced techniques and skills.

**Evaluation:** Based on skills mastered, craftsmanship, design of finished projects, and a written final.

*Meets Arts Education requirement.
INTRO TO ART* (9th grade only)

This course offers ninth grade students an opportunity to explore different processes and techniques in the pursuit of making art. The class will include a variety of two- and three-dimensional media, with a special focus on developing basic drawing skills.

Major Course Goals: Students will develop the fundamental skills needed for a solid foundation in the visual arts. Students will engage in a process of creative problem solving.

Evaluation: Evaluation will be based on work habits, planning skills, craftsmanship, creative problem solving, and weekly sketchbook assignments.

*Meets Arts Education requirement.

MIXED MEDIA ART* (10-12)

This course offers students a wide range of materials, skills and techniques to create art. Techniques and processes introduced in this course include the book arts (printmaking, papermaking, and book binding), collage, small sculpture, assemblage, and more. In mixed media students can be successful even without fine art skills such as drawing and painting. Students will be required to keep a sketchbook/journal and willing to scavenge for found objects and materials. Find your “inner artist”!

Major Course Goals: Students will use creativity and art-making skills to communicate ideas about their culture, environment, imagination and opinions.

Evaluation: Evaluation will be by portfolio review of finished products, class participation and teacher/student/peer assessment.

*Meets Arts Education requirement.
AVID
(Advancement Via Individual Determination)

AVID COURSE DESCRIPTION

Course Overview:
Grades: 9-12
Length: 4 years
Prerequisites: Middle School/High School AVID and/or interview/application process.

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<th>Grade</th>
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What is AVID
AVID is an acronym which stands for Advancement Via Individual Determination. It is an in-house academic program that prepares students for college eligibility and success. The program targets academically average students and places them in advanced courses, while supporting them in the AVID elective. AVID levels the playing field for underserved students without a college-going tradition in their families.

Mission of AVID
AVID is designed to increase school-wide learning and performance. The mission of AVID is to close the achievement gap by preparing all students for college readiness and success in a global society. Students in this class will:

- take rigorous courses;
- participate in mainstream activities of the school;
- apply for enrollment in four-year colleges; and
- become educated and responsible participants and leaders in a democratic society.

The AVID Student—Eligibility Requirements
In order to be eligible for AVID, students must be performing in the academic “middle” but have strong potential. Students must apply and interview for the program. The typical AVID student will have average to high test scores, a 2.0-3.5 GPA, college potential with support, and desire and determination. They also must meet at least one of the following criteria:

- First generation to attend college from their family
- Historically underserved in four-year colleges
- Low income
- Special circumstances (loss of guardian, foster care, etc.)

Why AVID Works
AVID works because:

- The selection process ensures only those with ability, desire and determination participate
- It accelerates underachieving students
- Intensive support is provided
- Focuses on helping all students achieve at high levels, especially students of color
- Specific needs of underachieving students are targeted
- Teacher is redefined as an advocate and guide
- Communication and sharing between teachers, administrators and counselors occurs
- All strategies are research-based

Course Philosophy
The AVID curriculum is offered as an elective course that prepares students for entrance into four-year colleges. It is based on rigorous standards developed by middle and high school teachers and college professors. It is driven by analytical writing, inquiry, collaboration, organization and reading (WICOR), and in addition focuses on study skills, test taking skills, note taking, research, organization, critical thinking, goal setting, choosing a college, and preparing for college entrance and placement exams.
**Course Description/Structure**

AVID meets five hours per week as follows:

Students receive two hours of instruction per week in college entry skills:

- Lessons on test-taking skills
- Instruction in math and English language concepts frequently seen on college entrance tests
- Practice on “mock” SAT and ACT tests
- In ninth, tenth and eleventh grades, students are encouraged to take the PSAT (Preliminary Scholastic Aptitude Test) or the PLAN (Preliminary American College Test)
- In eleventh and twelfth grades, students take the SAT (Scholastic Aptitude Test) and/or the ACT (American College Test)

Two hours per week in tutor-led study groups:

- Students work with college tutors in small groups with academic questions that students bring to the tutorial
- Students are required to take notes during tutorial and use class and textbook notes to inform their discussions during tutorial
- Tutors help students with the process of learning through inquiry, rather than giving students the answers to their questions
- Students learn the value of working with others in tutorial

One hour per week in motivational activities and academic survival skills:

- AVID students learn skills such as time management, note taking, textbook reading, library research, and maintaining the AVID binder
- Students are expected to maintain an organized binder, including an assignment calendar, class and textbook notes, assignments and homework, which is graded regularly
- In AVID, students learn that writing is a process. Students are expected to use this process in all grade level writing assignments
- Students also participate in motivational activities including college and career research, college and career outreach speakers, field trips to colleges and businesses and other education opportunities in their communities, and service learning experiences. These activities provide students with the resources they need to learn about many positive opportunities available to them in the community that will impact their future.

**Assessment Procedures**

Students will be assessed using a variety of performance-based assessments. They are required to develop and present the Multi-Grade Level Portfolio at the end of each year, representing their work in the AVID program. Contents will include but are not limited to the following:

- Grade-level AVID writing curriculum
- Four-year plan
- Timed writing with rubrics
- Analytical essays with rubrics
- Notes taken in content areas
- Semester reflections
BUSINESS AND MARKETING EDUCATION

Credit value follows in parentheses.

9703 College R.O.C.K.S.! (12)  
Seniors, are you unsure about your education after high school? Don’t know what to choose for a major? Deciding on a college got you down? We have a course for you. **College R.O.C.K.S.!** is a course designed to help you work through this process as students will investigate various majors and colleges, fill out college applications, and learn about financial aid and scholarships.  
**Evaluation:** Participation in class discussions and activities, as well as major projects.

9007 Accounting and Finance I (10-12)  
**A must class for any business major!** Pave the way for an easier path through college accounting by taking this course. This introductory course provides students with a fundamental understanding of the basic accounting concepts and procedures. The information introduced in this course will prepare you for further study in college level business as well as for a wide range of business career opportunities.  
**Evaluation:** Practice packets and tests.

9844 Accounting and Finance II  
Prerequisite: C+ or better in Accounting and Finance I  
**Strongly recommended for business majors.** A continuation course that focuses on more complex and advanced accounting issues and concepts.  
**Evaluation:** Practice packets and tests.

9012 Business and Personal Law (11-12)  
Get to know your rights and obligations in personal and business dealings. You will research laws and evaluate proposed positions and solutions. Topics include criminal and civil law, courts and trials, consumer protection, insurance, torts, contracts and liability.  
**Evaluation:** Participation in class discussions and projects, as well as tests, quizzes, case studies, and cooperative learning.

9027 Leadership/Management (10-12)  
Oprah, John Kennedy, Martin Luther King, Jr., Coach K, Angelina Jolie – all examples of great leaders. Whether as babysitter, shift leader, team captain or parent, leadership skills are essential to succeeding. Through a variety of activities, role plays, observations and readings, students will learn the frameworks to becoming a better leader.  
**Evaluation:** Participation in class discussions and activities, as well as completion of major projects.

9009 Career Investigations (10-12)  
Doctor? Pilot? Chef? Electrician? Computer Programmer? Do you know what you want to be when you grow up? This semester class will take you through a process of goal-setting, decision-making, self-interests and career research. You will create sample resumes, cover letters, applications, thank-you notes and school-based learning. Develop a career plan to integrate knowledge, skills and abilities you need to achieve your career goals. **This class is highly recommended for sophomores and juniors.**  
**Evaluation:** Classroom participation, discussion, assessments, career research writings and a portfolio.
START YOUR OWN BUSINESS (11-12)
Do you want to be your own boss? This class focuses on how to recognize and start up a business opportunity, as well as operate and maintain that business. Being able to recognize new business opportunities is not only necessary for the entrepreneur but for everyone seeking to be successful in the 21st century. Students will create a business plan to start a business of their choice. You could be the next Oprah Winfrey or Bill Gates.

Evaluation: Participation in class discussions and projects, case studies, assignments and a final business plan.

MONEY MATTERS (10-12)
Show me the money! This class is a great chance to learn basic money concepts required for managing, using, and investing your money – skills everyone needs – 45% of women manage their family’s finances. Course subjects include budgeting, credit, taxes, consumerism, and major purchases (cars, college and weddings).

Evaluation: Participation in class discussions and activities, as well as major projects and tests.

SPORTS AND ENTERTAINMENT MARKETING (11-12)
What do the Wild and Rascal Flats have in common? Take this class and find out. Learn everything you ever wanted to know about promotion, careers, opportunities, and marketing techniques used by your favorite team and music performers. Students will research, develop, create, and test their own sports teams.

Evaluation: Participation in class discussions and activities, as well as major projects.

INTRO TO MARKETING (10-12)
A business and marketing background benefits people in all careers. Students will also study how businesses are organized, international business practices, technology’s impact on business, marketing strategies, and advertising through real world projects.

Evaluation: Participation in class discussions and projects, case studies, and cooperative learning.

FASHION MERCHANDISING (10-12)
Fashion merchandising is one of the fastest growing topics among high school students today! Students will discover the fundamentals of fashion, fashion merchandising, and fashion design. They will collaborate with students from Sewing I and II on multiple projects throughout the semester to design, price and market the clothing made in the Sewing class. See 9001 Sewing I and 9048 Sewing II (listed under Family and Consumer Science - FACS).

Evaluation: Participation in class discussion, activities, and presentation of a fashion business plan.

MICROSOFT COMPUTER APPLICATIONS (9-12)
This is a beginning course in computer applications designed to introduce word processing, spreadsheets, and graphic presentations. Emphasis is on learning Microsoft Word, Excel, and PowerPoint. This is a foundation course designed to provide you with skills necessary to successfully complete the majority of your other course assignments while at Armstrong.

Evaluation: Completion of class assignments, tests, and demonstration of computer skills.
DESIGN ENGINEERING TECHNOLOGY

Design Engineering Technology is people learning to use knowledge, processes, tools, resources, and systems to improve their lives, extend their human capabilities, and improve the world in which we live.

New technology is everywhere and the world is becoming more technology-based. Technology provides each of us the opportunity to extend our human potential. The young person who is technologically literate and equipped with technology-related skills will have a great advantage in efficiently completing tasks, finding employment and enjoying life to the fullest.

Design Engineering Technology is a curriculum area where students can enhance their math, science and communication skills through practical applications. Students are able to develop their skills in reality-based situations that require problem-solving and higher-level thinking. Success in technology career fields will be largely dependent on one’s ability to solve relevant math, science and communication problems.

Courses in Design Engineering Technology will help a student prepare for a wide array of exciting technical career fields. Many of these fields hold promising future potential for satisfying and rewarding careers. Students with a background in technology are well prepared to pursue advanced education in community, technical and/or four-year college systems.

Design Engineering Technology is open and important to everyone—young women and young men. Since there currently are relatively few women in technical fields, education in this area may be especially beneficial to young women.

Credit value follows in parentheses.

Engineering, Architecture, Construction and Manufacturing Technology Cluster
9643 Architectural Design (1)
9647-9648 Introduction to Engineering Design I & II (2)
9845 Advanced Engineering/Architectural Design I (1)
9042 Construction Technology (1)

Energy, Power and Transportation Technology Cluster
9644 Know Your Car (1)
9742 Auto Mechanics (1)
9843 Advanced Auto Technology (2)
9044 Energy and Power (1)
9045 Electronics (1)

Information and Communications Technology Cluster
9041 Applications of Computers (1)
9641 Computer Graphic Design I (1)
9740 Computer Graphic Design II (1)
9043 Web Page Design (1)
9642 Digital Photography (1)
9841 TV & Audio/Video Production (1)
9645 Computer Maintenance and Repair (1)
9646 Computer Networking (1)

At the high school level, students will ultimately decide if skills acquired are to be used for job entry or as a basis for advanced technological, scientific or professional study. The Design Engineering Technology program supplies students with a basis for education and career planning, while providing motivation to learn and enrichment in basic skills through practical applications.

ENGINEERING, ARCHITECTURE, CONSTRUCTION AND MANUFACTURING TECHNOLOGY CLUSTER

• Do you like to solve problems that are projects from the real world?
• Do you have an interest in engineering or architectural design?
• Can you create a design for a product?
• Do you want to be able to use computer technology as a design tool?

Students who enroll in architecture/engineering technology will be involved in learning drafting, the universal language of technology. COMPUTER AIDED DRAFTING AND DESIGN will be introduced to all students as the technology tool of the future. Engineers, architects, designers and drafters all need to know the fundamentals of drafting and design.
DESIGN ENGINEERING TECHNOLOGY, continued

Architectural drawing students will learn fundamentals of architectural design and drafting. Designing and producing a set of plans for a typical structure will be part of the architecture sequence which may include as many as four semesters of architecture work. Designing decks, creating interior designs, architectural model building, and making 3-D perspective views of buildings will be part of the architectural experience. COMPUTER AIDED DRAFTING AND DESIGN will be utilized regularly throughout both the architecture and engineering course activities. Using the computer as a drafting tool is a requirement for the architecture- or engineering-bound student.

Engineering technology students will learn techniques of drafting and design, which are the basic tools of all engineering disciplines. Electrical, civil, mechanical and other engineering specialties require problem-solving, designing, planning and production skills as a basic required skill set for success. Engineering students will be assigned to produce various products as a solution to a real engineering-challenge assignment. All students who wish to participate in a technology-driven future should register for Architecture/Engineering/Computer Aided Drafting and Design Technology.

9643 ARCHITECTURAL DESIGN (10-12)
This course will introduce students to the various types of housing that currently are being built or manufactured. Emphasis is placed on the use of COMPUTER AIDED DRAFTING AND DESIGN equipment, interior home design and building construction techniques. Students will draw a set of house plans for a vacation home. Students will learn the basics of designing an original structure from a set of design requirements. Students will be introduced to computer-aided drafting using state-of-the-art computers and industry standard software! The majority of the technical drawings will be done on the computer. This is a computer-based course.

Major Course Goals: The student will: 1) learn the fundamentals of preparing architectural plans, 2) learn the basics of the architectural design process, 3) use the computer to produce architectural drawings and designs, 4) understand the process of residential design and construction.

Evaluation: Students will be evaluated on classroom participation, completion of assigned projects, and performance tests as required.

9647 INTRODUCTION TO ENGINEERING DESIGN I & II (10-12) (yearlong 2 credits) *Project Lead The Way*

Nearly every product that is manufactured or produced is first designed and drawn on paper. This course will introduce students to those systems that are used by designers, engineers and manufacturers to produce goods and services. Elements of design and technical drawing will be studied and practiced by students. All students will be introduced to COMPUTER AIDED DRAFTING AND DESIGN very early in the course. This is an exceptionally good course for students going into technical studies in college or a technical school. All students will use Autodesk Inventor to produce technical drawings. This is a computer-based drafting course; a problem-solving class with an emphasis on design, development, documentation and production of products that solve a problem. Students will work both independently and in groups.

Major Course Goals: Students will: 1) learn about the basic problem-solving process involved in engineering applications, 2) be able to use the methods of documentation consistent with engineering careers, 3) recognize the relationships between engineering and other areas such as science, mathematics, and impacts upon both the social and physical environment, 4) understand the impact of engineering on the production and consumption of resources and products and the impact of engineering on the quality of life.

Evaluation: Students will be graded by means of performance tests, computer aided drawings, and projects completed. Group and individual activities will be evaluated.

9845 ADVANCED ENGINEERING/ARCHITECTURAL DESIGN I (10-12)
Prerequisite: 9643 Architectural Design or 9647-9648 Introduction to Engineering Design I & II
This semester class is for students interested in learning the fundamentals of planning and designing, manufacturing, production, basic construction and building techniques. This is a great course for those who want to be involved in technology challenges like MTEEA Supermileage, FIRST Robotics, or MN Renewable Energy's Solar Boat Regatta. Safe and proper use and application of hand tools, power tools, machine tools, construction practices, materials handling and finishing techniques will be learned. Designing, estimating, purchasing materials, and project planning will be a part of project development. Students will work with basic woodworking, electrical, metalworking and finishing technologies.

Major Course Goals: Students will be able to: 1) plan a project using the design process, 2) select materials, tools, and processes to complete a project, 3) demonstrate safe and proper use of tools, processes, and materials, 4) understand the economic, environmental, and social impacts of the application of construction technologies, and 5) contribute in the process of bringing a project from a concept to a finished reality.
**DESIGN ENGINEERING TECHNOLOGY, continued**

**Evaluation:** Students will be evaluated with written tests, performance tests, and the quality of work on assigned and planned projects. Attendance, citizenship, and other course requirements will be considered.

**Materials Fees:** Students will pay to cover miscellaneous supplies for their projects. Additional cost may be incurred by the student to pay for materials used in the production of the class projects (wood, metals, electrical supplies, etc.).

**Typical Projects:** Students in Architecture may plan, design and build a small structure such as a storage building or detached workshop. Engineering students may be involved with planning, designing and building a vehicle to meet a need or requirement.

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**CONSTRUCTION TECHNOLOGY** (10-12)

This one-semester class is for students interested in learning the fundamentals of basic construction, manufacturing, and building techniques. Students would apply the skills to areas like basic carpentry, mass production, and building construction. Safe and proper use and application of hand tools, power tools, machine tools, construction practices, materials handling and finished techniques will be learned. Designing, estimating, purchasing materials, and project planning will be a part of project development. Students will work with basic woodworking, electrical, metalworking and finishing technologies.

**Major Course Goals:** Students will be able to: 1) plan a project using the design process, 2) select materials, tools, and processes to complete a project, 3) demonstrate safe and proper use of tools, processes, and materials, 4) understand the economic, environmental, and social impacts of the application of construction technologies, 5) contribute in the process of bringing a project from a concept to a finished reality.

**Evaluation:** Students will be evaluated with written tests, performance tests, and the quality of work on assigned and planned projects. Attendance, citizenship, and other course requirements will be considered.

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**ENERGY, POWER AND TRANSPORTATION TECHNOLOGY CLUSTER**

- Do you want to know the basics of car ownership and maintenance?
- Is it important to know how to keep your car operating safely and efficiently?
- Are you a knowledgeable and rip-off-proof auto owner?

Students enrolled in this cluster will be assigned to classes suited to their needs for automotive knowledge. Small gasoline engines such as automobile engines are an important part of everyday life. Basic principles of tool use and maintenance procedures are important to all those who use cars, trucks, mowers, snowmobiles, boats, airplanes and other engine-driven vehicles or systems. The Know Your Car course is suited to those women and men who are at the starting point in learning about automotive technology. Learn the important things that lack of time cuts from driver education classes. Advanced students will move on to Auto Mechanics and Auto Engine Rebuilding — classes with an emphasis on diagnosis and repair of faulty or inoperative automotive systems. The use of safe repair procedures, test and diagnostic equipment, and appropriate tools and machines will challenge the mechanical enthusiast. If you are interested in basic engine maintenance and repair, being a knowledgeable user of cars and engine-driven devices, or auto mechanics as a career choice, you should register for Automotive/Transportation Technology.

**KNOW YOUR CAR** (10-12)

This beginning course is open to all students who have had little or no previous automotive experience. **Young women are strongly encouraged to take this class!** During this course students learn how a car operates, from the engine to the tires. Students learn how to perform some of the routine maintenance and repair procedures, such as changing tires, replacing spark plugs, and changing oil and filter. Students also learn how to purchase common automotive products such as tires, batteries, and other accessory items. Purchasing an automobile, insurance coverage, and automobile service and repair options are also covered in this class. This course is the fundamental course for students interested in automotive technology.

**Major Course Goals:** Students will be able to: 1) have a working knowledge of the automobile, its systems and components, 2) understand and follow safe work practices that apply to automotive repair, 3) intelligently make decisions regarding purchase of parts, service and automobiles, both new and used.

**Evaluation:** Worksheets on reading assignments and performance and oral tests will be used for evaluation. Grading is 60 percent on shop work and 40 percent on written worksheets and tests.
9742 **AUTO MECHANICS** (10-12) Prerequisite: 9644 Know Your Car

This is an in-depth course in automobile mechanics. In this class students will study the ignition system, fuel, tune-up, lubrication, cooling and emission-control systems.

**Major Course Goals:** Students will be able to: 1) understand and follow safe work practices that apply to automobile repair, 2) diagnose and repair problems found in the systems and their components, 3) develop skills in the use of hand tools, automotive test and power equipment.

**Evaluation:** Written tests and worksheets on assignments, performance tests and oral tests will be used for evaluation. Grading is 60 percent on shop work and 40 percent on written work and examination.

9843 **ADVANCED AUTO TECHNOLOGY** (10-12) Prerequisite: 9742 Auto Mechanics

Students continuing their experience to an advanced level will select this semester-long, two credit block class. Advanced students will work on auto body projects, engine rebuilding, auto drive trains, and other areas of special interest. This course combines the previous courses Advanced Auto Mechanics, Auto Body Repair and Refinishing, Auto Engine Rebuilding and Drive Trains. Students will work on projects both assigned and of their own choice.

**Major Course Goals:** Students will be able to: 1) understand and follow safe work practices that apply to automotive repair processes, 2) analyze, diagnose, and determine sources of problems and propose corrective procedures, 3) use tools, materials, and processes to repair, restore, and maintain the proper function of automotive systems and structures.

**Evaluation:** Worksheets on reading assignments, tests on filmstrips and video cassettes, and oral and performance tests on processes and information will be used in evaluation. Grading is 60 percent on performance skills and 40 percent on written assignments and tests.

9044 **ENERGY AND POWER** (9-12) No approval needed to register

A one-semester course that will involve the student in activities that look at sources of energy, how it is used and how it is controlled. Activities in transportation will include study of the internal combustion gasoline engine and other types of engines. The course will cover energy options, methods of controlling energy and power, uses of energy and the environmental impact of energy use. Power and transportation systems of today and the future world of technology will be compared. Projects will be constructed in energy and power, some of which might involve student expense.

9045 **ELECTRONICS** (9-12)

This one-semester class is for students interested in learning the fundamental concepts involved in electricity and electronics. Students will explore topics related to the basics of electricity, electrical circuits, electronic components, electronic circuits, and the kinds of applications of electricity and electronics in daily living. Students will complete a series of experiments to develop an understanding of circuit types, component use, and circuit performance. Students will learn to build basic electrical and electronic circuits and devices.

**Major Course Goals:** Students will be able to: 1) understand and demonstrate the fundamentals of electrical circuits, 2) identify and describe the purpose of electrical and electronic circuit components, 3) construct basic electrical and electronic circuits to perform a task, 4) demonstrate safe and proper procedures in building and working with electrical and electronic circuits, 5) understand the economic, environmental, and social impacts of the use of electricity and electronics in daily living.

**Evaluation:** Students will be evaluated with written tests, performance tests, completion of lab experiments, and quality of work on assignments and project work. Attendance, citizenship, and other course requirements will be considered.

**Materials Fee:** Students will pay for costs of some project work.

**INFORMATION AND COMMUNICATIONS TECHNOLOGY CLUSTER**

- Do you need to be computer literate?
- Do you want to learn to use the computer as a communication tool?
- Are you interested in learning to use the communications tools of photography?
- Would you like to design and produce note pads, stationery, posters, business cards and other graphic design products?
Students in this cluster will pursue their interests in Computer Applications, Computer Graphic Design and Production, and similar communications-oriented course work. Students will be assigned class experiences based upon their interests, experiences and future needs. Computer Applications students will learn computer technology basics such as computer hardware and software use, selecting and using printers, scanners and other peripherals, and production of a variety of computer-generated products. Photography students will learn fundamentals of camera use, film development, darkroom production of prints and enlargements. Computer Graphic Design and Production students will design and produce computer-generated graphics products such as posters, note pads, stationery, business cards and other commercial graphic arts products. Students will learn about graphic production processes utilized in business and industry. To become skilled in communication technologies appropriate for professional, business and industrial careers, register for Computer/Communications Technology.

9041 APPLICATIONS OF COMPUTERS (9-12)

Computer literacy for school, work, home and recreation. This course is for all students who want to be prepared for a technology-driven future. Knowledge of computer applications and hardware choices will be a requirement for life in the future. Students will learn to use graphic design, desktop publishing, drawing and drafting, technical simulation and other problem-solving applications to extend and enhance math, science and other curriculum-area concepts. Students will learn the basics of INTERNET access and use. Peripheral equipment such as scanners, video input devices, plotters, conventional, color and laser printers and other appropriate hardware will be utilized in the applications. Learn to use the computer for more than just typing!

Major Course Goals: 1) Understand fundamentals of hardware and software design and application, 2) demonstrate knowledge and skill in selection and use of computer hardware and software choices, 3) be able to solve problems and produce products consistent with computer applications for pursuits in school, work, personal and recreational needs.

Evaluation: Based on participation, written work, tests and products produced.

9641 COMPUTER GRAPHIC DESIGN I* (9-12)

This course applies the computer to production of typical printed products used in business, industry and the home. Students will use the computer to produce notepads, letterheads, business cards, multicolor products, posters, signs, advertisements and other typical graphic products. Students will learn computer technology basics such as use of computers, video image digitizers, flat bed digitizers, laser printer, color printer, CD-ROM, and other computer peripheral devices to produce the graphic products. A variety of software programs are utilized by every student in the production of the graphic design and product. This class is especially suited to the future graphic artist, technical writer, computer graphic designer and animator, engineer, scientist and anyone with an interest in computers and graphic art or design.

Major Course Goals: The student will be able to: 1) design graphic products to meet the needs of society, 2) use the computer and other hardware to produce the product, 3) use a variety of software to produce graphics and text for the design, 4) print sample, press-ready copies of the design with conventional, laser and color printers, 5) understand and demonstrate the process of designing and producing graphic design products.

Evaluation: Students will be evaluated on the basis of completion of assigned projects, quality of work on all products, and the degree to which students meet attendance, citizenship and other course requirements.

*Meets Arts Education requirement.

9740 COMPUTER GRAPHIC DESIGN II* (9-12) Prerequisite: 9641 Computer Graphic Design I (no approval needed for registration)

This course is an extension of the application of the computer to designing and producing press-ready graphic products. The emphasis will be to utilize computer technology to do the pre-press operations common in the graphic arts and printing industries. Digital photography, color graphic design, desktop publishing and technical writing are some activities that students will complete in both individual and group assignments. The variety of computer hardware and software utilized will give students the knowledge and skill to use the computer as a tool for future careers. Computers are a reality for almost all careers and jobs.

Major Course Goals: The student will be able to: 1) research, design and produce graphic products to meet the needs of society, 2) select and use computer hardware and software appropriate to the assigned tasks, 3) utilize computer technology in work, education and recreation applications, 4) apply knowledge, skills and experience gained to aid in making educational and career decisions.
**DESIGN ENGINEERING TECHNOLOGY, continued**

*Evaluation:* Students will be evaluated on the basis of completion of assigned projects, quality of work on all products, demonstrated skill and knowledge and the degree to which students meet attendance, citizenship and other course requirements.

*Meets Arts Education requirement.

**9043 WEB PAGE DESIGN (9-12)**

This is a one-credit semester course that focuses on website design, construction and management— Students will work hands on to design, construct and maintain web pages on the internet and be involved with maintaining their own personal web sites.

**Major Course Goals:** Students will be able to: 1) demonstrate a working knowledge of using the internet, 2) explain the impact of the internet on society, 3) understand and apply principles of computer networking, 4) demonstrate principles of web page construction.

*Evaluation:* Students will be evaluated through the use of tests, quizzes, lab and project work, and performance tests. Grading is 60% lab work and 40% written worksheets and tests.

**9642 DIGITAL PHOTOGRAPHY* (9-12)**

This exploratory hands-on course deals primarily with black-and-white processes. Elements covered include camera selection, handling, exposure, composition and pictorial expression, and appreciation. Photographic prints will be produced with digital camera technology. Scanned print images will be used to convert to digital technology. Digital editing and presentation methods will be explored.

**Major Course Goals:** Students will be able to: 1) use photographic equipment and materials safely and effectively to convey a visual message, 2) understand and explain the basic principles of black-and-white and basic color photo technology, 3) recognize how application of photography can solve new technical problems, 4) develop a pride in work well done and an understanding of good design.

*Evaluation:* Students will be graded on completion of assignments, quality of work, attendance, citizenship and other course requirements.

*Meets Arts Education requirement.

**9841 TV & AUDIO/VIDEO PRODUCTION* (9-12)**

Students will use a variety of technologies to produce audio and video projects. Class projects will include the creation of: short videos, music videos, iPod tunes, cell phone ring styles, cartoon shorts, video games and much more. Students will also participate in the new Armstrong Campus Radio Station (KAHS) as production engineers, DJs, directors, copywriters, and be involved in the daily operations of the station. They will have an opportunity to produce audio/video shorts, commercials, and programs for the morning announcements as well as for several KAHS radio shows. This is a great course for students seeking careers in TV, radio, or entertainment. Advanced photography/video composition skills will be demonstrated. An audio/video portfolio will be developed and produced as a final project.

*Meets Arts Education requirement.

**9645 COMPUTER MAINTENANCE AND REPAIR (10-12)**

Students will utilize self-directed “hands on” computer-assisted curriculum to develop knowledge and skills which lead to A+ Certification. Learn how to set up, maintain, and fix computer hardware, set up and install software, and work towards an industry standard certification. 9045 Electronics course is recommended.

**9646 COMPUTER NETWORKING (10-12)**

Students will utilize self-directed “hands on” computer-assisted curriculum to develop knowledge and skills which lead to Net+ Certification. Learn how to set up, maintain, and fix computer networks, set up and install software, and work towards an industry standard certification. 9045 Electronics is recommended.
ENGLISH / COMMUNICATION / LANGUAGE ARTS

COURSES FOR FRESHMEN:
Credit value follows in parentheses.
1700-1701 English 9 I & II with Pre-AP Credit Option (2)

COURSES FOR SOPHOMORES:
Credit value follows in parentheses.
1702-1703 English 10 I & II: American Literature with Pre-AP Credit Option (2)

NOTE: Tenth grade students may take Acting (prerequisite), Introduction to Theater, Dance Techniques for the Stage, Introduction to Journalism, Journalism I & II (prerequisite), and Yearbook Journalism I & II as electives.

COURSES FOR JUNIORS AND SENIORS:
Credit value follows in parentheses.
1740-1741 English 11 I & II: Modern World Literature and Composition (2)
1844-1845 AP English 11 I & II: Language and Composition (2)
1742 English 12: Classic World Literature and Composition (Semester I) (1)
1743 English 12: Fundamentals of Speech (Semester II) (1)
1798-1799 English 12 I & II (Blended)** (2)
1846-1847 AP English 12 I & II: English Literature (2)
1705 Creative Writing – Poetry and Fiction* (1)
1710 Creative Writing – Poetry and Fiction (Blended)* ** (1)
1704 Acting* (1)
1746 Introduction to Theater* (1)
1747 Dance Techniques for the Stage* (1)
1748 Introduction to Journalism* (1)
1706 Journalism I* (Semester I) (1)
1707 Journalism II* (Semester II) (1)
1708-1709 Yearbook Journalism I & II* (2)

*Elective credit only; see counselor for credit recovery information.
**See page 5 for blended course information.

Below are suggested courses for students of different abilities and interests. Consult English instructors about the appropriateness of the course for you.

ADVANCED PLACEMENT LEVEL COURSES:
Recommended program:
Pre-AP English 9 Credit Option
Pre-AP English 10 Credit Option
AP English 11: Language and Composition
AP English 12: English Literature

REGULAR LEVEL COURSES:
Recommended program:
English 9
English 10: American Literature
English 11: Modern World Literature and Composition
English 12: Classic World Literature and Composition (Semester I);
Fundamentals of Speech (Semester II)

ELECTIVES:
Creative Writing - Poetry and Fiction
Creative Writing - Poetry and Fiction (Blended)
Acting
Introduction to Theater
Dance Techniques for the Stage
Introduction to Journalism
Journalism I & II
Yearbook Journalism I & II

See counselor for credit recovery information.
COURSES FOR FRESHMEN

1700 ENGLISH 9 I & II WITH PRE-AP CREDIT OPTION
1701 English 9 offers a rich study of a wide variety of fiction and includes some selections of nonfiction. It includes quality readings and accompanying writing and speaking opportunities. Students will begin the year with a writing workshop, learn high school readiness skills and techniques, and study grammar and usage conventions.

Essential Outcomes: Students will: 1) use the conventions of language when writing and speaking, 2) use the writing process, 3) write narratives and creative texts, 4) prepare for and participate in discussion as both speaker and listener, 5) summarize key supporting ideas and details, 6) close read and make inferences from a text, and 7) use technology responsibly, ethically, and safely to present their work.

Pre-AP Credit Option: Those students who wish to earn the Pre-AP credit will need to complete additional course work as directed by the English department and their English teacher. Information about this will be given out in class during the first month of school.

COURSES FOR SOPHOMORES

1702 ENGLISH 10 I & II: AMERICAN LITERATURE WITH PRE-AP CREDIT OPTION
1703 English 10 is a year-long class that examines American literature. Students will study a wide variety of fiction along with a few selections of non-fiction. Students will also develop their argumentation skills by learning the course’s essential outcomes.

Essential Outcomes: Students will: 1) state a claim, 2) provide supporting evidence, 3) identify audience and purpose, 4) identify credible sources, and 5) use multimedia to respond and connect to literature.

Pre-AP Credit Option: Those students who wish to earn the Pre-AP credit will need to complete additional coursework as directed by the English department and their English teacher. Information about this will be given out in class during the first month of school.

COURSES FOR JUNIORS AND SENIORS

1740 ENGLISH 11 I & II: MODERN WORLD LITERATURE AND COMPOSITION (Regular) (11)
1741 This course explores modern literature from diverse perspectives. Students will also respond to novels, poetry, and non-fiction through a variety of writing activities. This language arts class encompasses composition and literature as well as speaking and listening. Topics include global social and cultural issues, immigrant experiences and international perspectives.

Essential Outcomes: Students will: 1) demonstrate use of tone, both in identification in literature and use in their own writing, 2) learn to use and properly format in-text citations for research projects and papers, 3) understand and use the idea of refutation in crafting argument/persuasion, and 4) analyze visual images to identify the persuasive and informative details within the images and the perspectives present within those images.

1844 AP ENGLISH 11 I & II: LANGUAGE AND COMPOSITION (Advanced) (11)
1845 This course is designed for students who are strong readers and writers. Students complete a number of challenging compositions. In addition, students will learn skills needed to take the AP Language and Composition exam. Students will read non-fiction texts including a few complex texts focused on cultural issues. The final quarter will focus on literary criticism in preparation for AP English 12.

Essential Outcomes: Students will: 1) demonstrate use of tone, both in identification in literature and use in their own writing, 2) understand and use the idea of refutation in crafting argument and persuasion, 3) learn to use and properly format in-text citations for research projects and papers, and 4) analyze visual images to identify the persuasive and informative details within the images and the perspectives present within those images.

NOTE: Students who register for AP English 11 will be expected to complete a summer reading assignment.
ENGLISH / COMMUNICATION / LANGUAGE ARTS, continued

1742 ENGLISH 12: CLASSIC WORLD LITERATURE AND COMPOSITION (Semester I) (Regular) (12)
1743 ENGLISH 12: FUNDAMENTALS OF SPEECH (Semester II) (Regular) (12)
This course explores classical literature from diverse world cultures and will also focus on additional areas of composition not covered in English 11. Students will read plays, novels, short stories, and poems. Second semester is devoted to speech, and students will complete demonstration, informative, persuasive, and entertainment speeches as well as other speech-related activities.

**Essential Outcomes:** Students will: 1) interpret complex words and phrases to assess meaning, 2) demonstrate the fundamentals of public speaking, 3) write in a variety of styles with short- and long-term deadlines, and 4) demonstrate independent research skills.

1798 ENGLISH 12 I & II (BLENDDED) (12) Prerequisite: Written permission of parent and counselor, reliable internet access at home/outside of school
This is an alternate way to take English 12. Consider this option if you are an organized, responsible, task-oriented and independent learner who needs flexibility in scheduling. There will be weekly assignments and tasks to turn in electronically, along with the usual reading and writing activities of the standard English 12 course. You will have ongoing online interaction with the instructor and at least one face-to-face meeting per week, but with more as needed.

**Major Course Goals:** Same as for 1742-1743 English 12 (see course description).

1846 AP ENGLISH 12 I & II: ENGLISH LITERATURE (Advanced) (12)
1847 This yearlong course is designed for advanced readers and writers. Students will read texts from the ancient world through the 20th century, and students will complete several analytical compositions that encompass a variety of literary criticisms. In addition, students will learn skills needed to take the AP Literature exam. Public speaking will be a component of this class as well.

**Essential Outcomes:** Students will: 1) interpret complex words and phrases to assess meaning, 2) demonstrate the fundamentals of public speaking, 3) write in a variety of styles with short- and long-term deadlines, and 4) demonstrate independent research skills.

**NOTE:** Students who register for AP English 12 will be expected to complete a summer reading assignment.

**ELECTIVE CREDITS**

1705 CREATIVE WRITING – POETRY AND FICTION* (11-12) (Elective credit only)

**Poetry:** First Quarter
Students learn to use their imaginations in exploring personal experiences and writing about them in open verse. They also record these experiences in daily journals. These journals in turn provide data for their poetry. Each spring students’ writings appear in the school’s literary magazine, The Cipher. Course work includes four areas: production, performance, criticism, and aesthetics.

**Creative Writing – Poetry is a writers’ workshop. Students will be required to read their work orally in class.**

**Major Course Goals:** Students will be able to: 1) recognize poetic quality, interpret metaphorical language and use metaphorical language effectively in writing, 2) develop an imaginative idea, use writing skills for effective communication, and critique and edit poetic copy, and 3) recognize the poetic potential in memories, observations and projections.

**Fiction:** Second Quarter
Students develop writing skills, particularly with respect to word choice, phrasing and sentence structure. They write compositions dealing with description, narration, point of view, personal experience and parody. They practice developing elements of the short story - character, setting, plot, dialogue, theme and point of view. One major project is a 2,500-word short story. Students develop skills in dramatization and write a play that runs approximately 15 minutes. Readings involve short stories and plays. Course work includes four areas: production, performance, criticism, and aesthetics. **Creative Writing – Fiction is a writers' workshop. Students will be required to read their work orally in class.**

**Major Course Goals:** Students will be able to: 1) understand the techniques of fiction, 2) create a short story that develops setting, character, plot, conflict and theme, and 3) write a play that develops characterization, plot, conflict and theme.

*Meets Arts Education requirement.
1710 CREATIVIE WRITING – POETRY AND FICTION (BLENDEN)* (11-12) (Elective credit only)
   Prerequisite: Reliable internet access required outside of school.
   This is an alternate way to take the elective Creative Writing class in 11th and 12th grade. Consider this option only if you are an organized, task-oriented, independent learner who seeks flexibility in your schedule. There will be weekly assignments and tasks that you will be required to complete and turn in electronically. You will have lots of online interaction with the teacher and your fellow online learners on a daily and weekly basis, and you will meet with the teacher face-to-face approximately once a week.
   **Major Course Goals:** Same as for 1705 Creative Writing (see course description).
   **Evaluation:** Same as for 1705 Creative Writing (see course description).
   *Meets Arts Education requirement.

1704 ACTING* (10-12) (Elective credit only)
   Prerequisite: Introduction to Theater or consent of instructor.
   This course centers on the basic skills of acting. It includes the actor’s internal preparation for playing a role and the development of his or her external techniques for projecting the role to the audience. Diction, body movement, pantomime and creative exercises in the use of imagination and improvisational activities are included. Projects include presentation of one-act plays.
   **Memorization of scene work is an expectation of this class.**
   **Major Course Goals:** The student will experience and explore various techniques used to create characters for the stage.
   **Evaluation:** 70 percent on performance; 30 percent on tests and written evaluations.
   *Meets Arts Education requirement.

1746 INTRODUCTION TO THEATER* (10-12) (Elective credit only)
   Students examine all aspects of theater arts. They learn about theater history and study the particulars of play production: acting, clothing, set construction, properties, make-up, sound, lights and publicity. They read and discuss plays; they evaluate live and filmed performances. Finally, the class includes performing activities such as improvisations and scenes. **Memorization of scene work is an expectation of this class.** This course is designed to give students a basic understanding of theater that is useful in enjoying theater both as a leisure-time activity and as a potential career.
   **Major Course Goals:** The student will gain understanding and experience in all aspects of theater including performance, technical skills and evaluation.
   **Evaluation:** 50 percent on tests and play evaluation; 50 percent on activities and projects.
   *Meets Arts Education requirement.

1747 DANCE TECHNIQUES FOR THE STAGE* (9-12) (Elective credit only)
   This course is designed for students who want to become more proficient in movement as it relates to staging. Students will learn the basic principles of given dance genres related to culture and time period. They will gather information on dance genres and choreographers while having the opportunity to review dance productions. Students will learn basic dances or steps while researching appropriate music and ultimately choreographing their own pieces.
   **Major Course Goals:** Students will demonstrate basic techniques of movement in ballroom dance, ballet, jazz and tap for the expressed purpose of stage production as well as various cultural dances.
   **Evaluation:** Evaluation will be based on teacher and peer review. Students will be graded on presentation, performance and participation.
   *Meets Arts Education requirement.

1748 INTRODUCTION TO JOURNALISM (9-12) (Elective credit only)
   In Introduction to Journalism, a one-semester course, students will learn to write news articles and feature stories for newspapers, scripts for television production and copy for yearbooks and magazines. Students will evaluate professional and student models and create visual and print productions. This course is a prerequisite for enrollment in Newspaper Journalism.
   **Major Course Goals:** Students will be able to: 1) demonstrate basic news writing techniques, 2) use a variety of forms of journalistic writing, 3) identify the target audience, 4) demonstrate techniques of editing and composition, 5) acknowledge careers in media, and 6) evaluate professional models and ethics.
   **Evaluation:** Students will be evaluated by means of writing exercises, media reviews, exercises in layout and quizzes.
1706 JOURNALISM I (9-12) (Elective credit only) Prerequisite: Introduction to Journalism or instructor approval

This course focuses on the process of gathering and presenting the news. Students learn to interview and to write sports, news, features and editorials. The major project of the course is publication of the school newspaper and each student is expected to make a significant contribution, including work outside the classroom.

**Major Course Goals:** Students will be able to: 1) demonstrate the process of gathering and presenting the news, 2) write sports, news, features and editorials, and 3) demonstrate such skills as page planning and layout in order to produce a newspaper.

**Evaluation:** Students will be evaluated on the basis of participation in and outside class, on quality as well as quantity of published articles, on page design and makeup, and on the basis of written tests that demonstrate mastery of journalism terms and techniques.

1707 JOURNALISM II (9-12) (Semester II) (Elective credit only) Prerequisite: Introduction to Journalism or instructor approval

Students learn to write columns, reviews and in-depth articles and also study advertising, layout, design and photojournalism. Students will learn to evaluate examples of professional and student writing. The major project is publication of the school newspaper, and each student is expected to make a contribution, including work outside the classroom.

**Major Course Goals:** Students will be able to: 1) write columns, reviews and in-depth articles, 2) understand advertising, layout, design, photojournalism and political cartoons, and 3) demonstrate and refine such newspaper production skills as page planning, layout, photo cropping and headlining while they publish the school newspaper.

**Evaluation:** Same as Journalism I.

1708 YEARBOOK JOURNALISM I & II (10-12) (Elective credit only) Prerequisite: Grade of B or better in previous semester English course or instructor approval

This course is a lab class that uses the Armstrong High School yearbook, the Gyre, as its production product. Students will be expected to learn layout, planning, photography and writing in a variety of magazine/article styles. The fall semester is devoted to completing the deadlines for the yearbook on a step-by-step basis, while spring semester focuses more on design, photography and completing the spring supplement to the yearbook. Every student is expected to work beyond the classroom hours in some facet of writing, editing, layout or photography.

**Major Course Goals:** Students will be able to: 1) design and lay out yearbook pages using desktop publishing software, and 2) demonstrate skills in planning, layout, magazine writing, photography, photo cropping and editing while publishing the yearbook.

**Evaluation:** Grading is based upon layout and photography assignments, completion of yearbook and supplement pages, participation in various aspects of yearbook production, written quizzes and regular class attendance.
ENGLISH LEARNERS (EL)

Credit value follows in parentheses.

1020-1021 EL 1 I & II (2 credits each semester)
1022-1023 EL 2 I & II (2 credits each semester)
1024-1025 EL 3 I & II (2 credits each semester)
1026-1027 EL 4 I & II (2 credits each semester)
1028-1029 EL 5 I & II (2 credits each semester)
1030-1031 EL Literacy Development I & II (2 credits each semester)
1613-1614 EL Social Studies Content I & II (1 credit each semester)
1038-1039 EL Advanced Academic Skills I & II (1 credit each semester)
0044 EL Tutorial

COURSE DESCRIPTIONS

1020 EL 1 I & II (9-12) (2 credits each semester)
1021 This course is designed for students who are just beginning their study of the English language. Students will learn basic skills in reading, writing, speaking and listening.

1022 EL 2 I & II (9-12) (2 credits each semester)
1023 Students will be introduced to the language and concepts of literature and grammar and develop their skills in reading, writing, speaking and listening.

1024 EL 3 I & II (9-12) (2 credits each semester)
1025 Students will develop academic English through the study of literature, grammar and communication skills.

1026 EL 4 I & II (9-12) (2 credits each semester)
1027 Students will continue to develop academic English with fiction and nonfiction reading, grammar, and composition.

1028 EL 5 I & II (9-12) (2 credits each semester)
1029 A comprehensive study of English with a balance between fiction and nonfiction reading and composition designed for the advanced English language learner.

1030 EL LITERACY DEVELOPMENT I & II (9-12) (2 credits each semester)
1031 Students will learn function, form and strategies for acquiring basic literacy skills.

1613 EL SOCIAL STUDIES CONTENT I & II (9-12) (1 credit each semester) Must be enrolled in EL Level 1 or EL Literacy.
1614 This course will provide beginning level EL students with an introduction to social studies content. Students will develop the academic language, concepts and skills necessary to participate in mainstream content classes.

1038 EL ADVANCED ACADEMIC SKILLS I & II (9-12) (1 credit each semester) Must be enrolled in EL Level 4 or 5, or have EL teacher approval.
1039 This course will help EL students develop the skills and concepts they need to be successful in mainstream content area classes. Some topics offered in this class are study skills, organizational skills, and learning strategies.

0044 EL TUTORIAL Prerequisite: Consent of EL instructors
This class is for students to earn credit by helping EL students in classes.
FAMILY AND CONSUMER SCIENCE (FACS)

Credit value follows in parentheses.

Grade 9
9446 Parenting (1) (separate section for freshmen)
9440 Foods and Nutrition I (1) (separate section for freshmen)

Grades 9-12
9001 Sewing I (1)

Grades 10-12 only
9048 Sewing II (1)
9006 Parenting (1)
9600 Foods and Nutrition I (1)
9750 Foods II – International Foods (1)

COURSE DESCRIPTIONS

9001 SEWING I* (9-12)
Learn to sew three items as a class and then create and sew your own item using a pattern and fabric that you choose and purchase. Introduction to modern fashion, fabrics, and careers in the design, fashion, retail and merchandising industries.

Major Course Goals: Students will: 1) demonstrate the ability to read and apply information to operate a sewing machine and embroidery machine, 2) choose a skill-appropriate pattern and fabric, 3) understand fabric construction and pattern terminology, and 4) be able to successfully complete an item using technical directions and pattern.

Evaluation: Sewing samples, sewing projects, and final fabric construction project.
Students will pay for projects they will take home during second quarter. Students will also collaborate with students from 9026 Fashion Merchandising (listed under Business) on multiple projects throughout the semester to design, price, and market the clothing made in the sewing class.

9048 SEWING II* (10-12) Prerequisite: Sewing I
This class is taught during the same period as Sewing I. Sew several items of your choice. Learn advanced skills and assist students in Sewing I.

Evaluation: Log of time, samples and projects.
Students will pay for projects they will take home. Students will also collaborate with students from 9026 Fashion Merchandising (listed under Business and Marketing Education) on multiple projects throughout the semester to design, price, and market the clothing made in the sewing class.

9446 PARENTING (9) (a separate section of Parenting for freshmen only)
Understand the role of a parent from the adolescent perspective, and that of a future parent. Students will learn about families, pregnancy, labor, delivery, parenting styles, positive and negative parenting characteristics, infancy and toddlers, child safety and child play as it relates to physical, intellectual, emotional and social development. Students learn that parenting begins at conception and continues through adulthood. This course will provide students with the knowledge and training to become effective parents, capable of establishing a strong family unit. Students will have the opportunity to practice overnight parenting with a Real Care Computerized Infant.

Evaluation: Class participation, written work, research and presentation projects.

9006 PARENTING (10-12)
See description for 9446 Parenting (9).

9440 FOODS AND NUTRITION I (9) (a separate section of Foods I for freshmen only)
Students in this introductory foods course will further their skills related to basic cooking principles. Students also produce, market and sell a product during “Snack Shop.”

Major Course Goals: Teacher-student interactions include the following areas of study: Food safety and sanitation, food preparation, snack choices, costs, nutrition labeling, recipe reading and measuring. Students will utilize collaborative skills to prepare pizza, quick breads, chili, manicotti, omelets, calzones, and bakery products.

Evaluation: Lab participation and written work.
FAMILY AND CONSUMER SCIENCE (FACS), continued

9600 FOODS AND NUTRITION I (10-12)
See description for 9440 Foods and Nutrition I (9).

9005 INTERIOR DESIGN* (11-12)
Students will explore living and working environments. The study of elements and principles of design, lighting, furniture, window treatments, paint, floor covering, textiles and interiors materials will be applied to design projects throughout the course.
\textbf{Major Course Goals:} Students will: 1) understand and apply elements and principles of design, 2) acquire knowledge of furniture styles and options for furniture arrangement in a living space.
\textbf{Evaluation:} Traditional (written work, research). Performance (portfolio design project).

9002 CHILD PSYCHOLOGY/CHILD CARE OCCUPATIONS (11-12)
This block course emphasizes the study of the physical, intellectual, emotional, and social development of children from 3 to 12 years. Emphasis is placed on developmental and guidance theory and effective parenting skills based on research and observation. Students will actively work with children in a preschool program. During this experience the student will plan, implement and evaluate activities for the preschool children. Students continue study of children in a laboratory situation with internships in the community elementary school setting. Students will investigate childcare trends and career choices. This advanced course is designed for students who are interested in careers such as elementary education, day care, pediatrics or child psychology.
\textbf{Major Course Goals:} Students will: 1) use the inquiry method to understand the physical, emotional, social and intellectual development of children from birth to five, 2) demonstrate teaching and guidance skills with children in the preschool lab, 3) explore child care issues, 4) use the decision-making process to select good child care institutions, 5) internship in elementary.
\textbf{Evaluation:} Traditional assessments (written work, reports). Performance assessments (individual and group participation in lab experience and completed case study paper). Technical college credit available to those who earn greater than 85%, and teacher approval.

9004 INDEPENDENT LIVING (11-12)
This course helps students learn to live on their own. Areas of study may include personal finance, budgeting, taxes and investments, car-purchasing, insurance, renting, job interviewing, resumes, consumerism, and career exploration. Students will have the opportunity to learn from professionals in our community.
\textbf{Major Course Goals:} Students will: 1) learn to manage their resources, 2) research career choices, 3) learn practical skills of life.
\textbf{Evaluation:} Traditional assessments (participation, tests, written work). Performance assessments.

9003 EXPLORING RELATIONSHIPS: MARRIAGE AND FAMILY (11-12)
Students will demonstrate effective communication skills in personal, family, community and work situations. Healthy choices in relationships with self, family and society will be explored. Students will research, present, and discuss various family and relationship issues.
\textbf{Major Course Goals:} To enable students to establish strong successful relationships in their future.
\textbf{Evaluation:} Traditional assessments (participation, reports, research). Performance assessments (individual and group), journaling, and complete communication project.

9750 FOODS II - INTERNATIONAL FOODS (10-12) Prerequisite: Foods I with grade of C+ or higher
This course is an excellent choice for students wishing to experience and appreciate ethnic cooking. Take a tour through regional foods of the United States and explore food heritage of the world as you prepare new and exciting foods. Exploration into culinary arts and international cuisine.
\textbf{Major Course Goals:} Research selected countries and explore current food issues.
\textbf{Evaluation:} Food preparation, lab work, teamwork, pre-planning, tests, and research project.
GLOBAL LANGUAGES

Bonjour! Hola! Konnichiwa! In Global Languages classes, students learn how to communicate in French, Spanish, or Japanese. Armstrong offers five levels of Spanish and French, four levels of Japanese, and a 9th-12th grade Spanish Immersion program which is an extension of the elementary and middle school Spanish Immersion program.

Coursework ranges from beginning to advanced college-level study. Students have the opportunity to prepare for the following Advanced Placement exams: French Language and Culture, Spanish Language and Culture, and Spanish Literature and Culture.

All Global Languages classes incorporate music, film studies, literature, conversation, stories, cultural activities, and use a state-of-the-art language lab. Block classes allow motivated students to take more than one level of language in a year or study two languages in the same year.

Students with considerable lived or family experience in the language they wish to study should contact a Global Languages teacher for appropriate course placement.

Many colleges and universities offer college credit and/or accelerated studies for global language proficiency achieved in high school.

Credit value follows in parentheses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Level</th>
<th>Prerequisite</th>
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<tbody>
<tr>
<td>8600-8601</td>
<td>French 1 I &amp; II</td>
<td>9-12</td>
<td>None, however, it is recommended that students have previously passed the MSRT basic skills English reading test. These are introductory courses in which students learn to speak, read, write, and listen through classroom instruction and language laboratory practice. Students who earned a grade of “C” or lower in middle school French 1 or Spanish 1 may enroll in this course rather than enrolling in French 2 or Spanish 2. <strong>Major Course Goals:</strong> Students will be able to: 1) demonstrate an understanding of the basic structures of the language, 2) compare and contrast another culture with their own.</td>
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<tr>
<td>8602-8603</td>
<td>French 2 I &amp; II</td>
<td>9-12</td>
<td>A passing grade in French 1 or Spanish 1 (a minimum grade of “C” is recommended), or department permission. Students continue development of communication skills—speaking, reading, writing, and listening. Students who earned a grade of “C” or lower in middle school French 2 or Spanish 2 may enroll in this course rather than enrolling in French 3 or Spanish 3. <strong>Major Course Goals:</strong> Students will be able to make statements and ask “get-to-know-you” questions with reasonable accuracy.</td>
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<tr>
<td>8608-8609</td>
<td>Spanish 1 I &amp; II</td>
<td>9-12</td>
<td>None</td>
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<tr>
<td>8610-8611</td>
<td>Spanish 2 I &amp; II</td>
<td>9-12</td>
<td>A passing grade in French 1 or Spanish 1 (a minimum grade of “C” is recommended), or department permission. Students continue development of communication skills—speaking, reading, writing, and listening. Students who earned a grade of “C” or lower in middle school French 2 or Spanish 2 may enroll in this course rather than enrolling in French 3 or Spanish 3. <strong>Major Course Goals:</strong> Students will be able to make statements and ask “get-to-know-you” questions with reasonable accuracy.</td>
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</tbody>
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Students may take more than one language at a time or complete two levels in a year.
GLOBAL LANGUAGES, continued

8614 JAPANESE 2 I & II (10-12) Prerequisite: Japanese 1 (successful completion is recommended)
Students will further their skills at speaking, reading, and writing Japanese. By the end of this course, they will have learned all the major structural elements of the language and will have learned approximately 100 more kanji. They will be able to hold more involved conversations in both polite and informal Japanese and will be able to understand a much larger amount of Japanese heard in movies, on television, etc. Students will be able to express complex ideas in written Japanese and will be able to understand much more Japanese in newspapers, magazines, and on websites. They will have increased their understanding of Japanese culture and will feel comfortable interacting with Japanese people in a variety of cultural situations.

8615 JAPANESE 2 I & II (10-12) Prerequisite: Japanese 1 (successful completion is recommended)
Students will further their skills at speaking, reading, and writing Japanese. By the end of this course, they will have learned all the major structural elements of the language and will have learned approximately 100 more kanji. They will be able to hold more involved conversations in both polite and informal Japanese and will be able to understand a much larger amount of Japanese heard in movies, on television, etc. Students will be able to express complex ideas in written Japanese and will be able to understand much more Japanese in newspapers, magazines, and on websites. They will have increased their understanding of Japanese culture and will feel comfortable interacting with Japanese people in a variety of cultural situations.

8740 FRENCH 3 8742 SPANISH 3 (9-12) Prerequisite: A passing grade in French 2 or Spanish 2 (a minimum grade of “C” is recommended), or department permission
Students practice conversational skills through the use of the language in realistic situations and increase their comprehension skills. More emphasis is placed on structural aspects and guided composition. Students continue to expand their cultural competencies.

Major Course Goals: Students will be able to: 1) demonstrate increased vocabulary acquisition, 2) communicate spontaneously in the target language.

8710 JAPANESE 3 I & II (10-12) Prerequisite: Japanese 2 (successful completion is recommended)
Students will develop advanced skills at speaking, reading, and writing Japanese. By the end of this course, they will have increased their understanding of the elements of the language, have learned approximately 100 more kanji, and be able to converse on a wide range of topics using polite, informal, humble, and honorific Japanese. They will be able to speak with much greater fluency and accuracy, and will be able to understand significant amounts of Japanese heard in movies, on television, etc. Students will be able to write on a wide range of topics, and will be able to read significant amounts of Japanese media. They will have built on their understanding of Japanese culture and will understand more of the nuances in interacting with Japan.

8711 JAPANESE 3 I & II (10-12) Prerequisite: Japanese 2 (successful completion is recommended)
Students will develop advanced skills at speaking, reading, and writing Japanese. By the end of this course, they will have increased their understanding of the elements of the language, have learned approximately 100 more kanji, and be able to converse on a wide range of topics using polite, informal, humble, and honorific Japanese. They will be able to speak with much greater fluency and accuracy, and will be able to understand significant amounts of Japanese heard in movies, on television, etc. Students will be able to write on a wide range of topics, and will be able to read significant amounts of Japanese media. They will have built on their understanding of Japanese culture and will understand more of the nuances in interacting with Japan.

8741 FRENCH 4 8743 SPANISH 4 (10-12) Prerequisite: A passing grade in French 3 or Spanish 3 (a minimum grade of “C” is recommended), or department permission
Students will deepen their knowledge of language and culture by engaging with original literary works, film, art, and historical and current events. Classroom interactions are conducted primarily in the target language.

Major Course Goals: Students will be able to: 1) speak at a more advanced level of communication, 2) participate in more challenging conversations.

8712 JAPANESE 4 I & II (11-12) Prerequisite: Japanese 3 (successful completion is recommended)
Students will further develop their skills at speaking, reading, and writing Japanese. By the end of this course, they will have become much faster and more accurate speakers, have learned approximately 100 more kanji, and be able to interact with Japanese people comfortably in most situations. Students will be able to interact with Japanese media (movies, internet, magazines, etc.) to a much higher degree of complexity. They will have furthered their understanding of Japanese culture and will feel comfortable handling complex cross-cultural issues.

8840 FRENCH 5 8841 SPANISH 5 (11-12) Prerequisite: A passing grade in French 4 or Spanish 4 (a minimum grade of “C” is recommended), or department permission
This course is designed for varied interests and abilities. Through a variety of units that possibly incorporate short literary works, music, history, or art, students will further develop and refine their communicative skills with frequent opportunities for practice. Classroom interactions are conducted primarily in the target language. Students who successfully complete this course have the option to take the Advanced Placement French or Spanish Language and Culture Exam, and/or universities' graduation proficiency tests, and/or the SAT subject test and expect good results, potentially allowing them to receive both college and high school credit. Spanish students desiring further study should enroll in AP Spanish Language and Culture/Immersion 10 as their next course.

Major Course Goals: Students will be able to: 1) increase their command of speaking, reading, writing, and listening skills, 2) increase their appreciation of literature, language, and culture.

AP French Language and Culture Exam
AP Spanish Language and Culture Exam
GLOBAL LANGUAGES, continued

8040 ADVANCED SPANISH LANGUAGE AND CULTURE/IMMERSION 9  Prerequisite: A grade of “C” or higher in the middle school Advanced Spanish 8 class, or department permission
This is the first course in the Spanish Immersion sequence at the high school level, designed for students who have been part of the Spanish Immersion program in elementary and middle school. All classroom interaction is conducted in Spanish. Through a variety of literary works and contemporary themes, students develop specific skills emphasized in the Advanced Placement Spanish Language and Culture Exam and become acquainted with the foundational literary concepts of the Advanced Placement Spanish Literature and Culture Exam.
**Major Course Goals:** Students will be able to: 1) refine communication skills, 2) increase their appreciation of literature.

8041 ADVANCED SPANISH LANGUAGE AND CULTURE/IMMERSION 10  Prerequisite: A passing grade in Advanced Spanish Language and Culture/Immersion 9 or Spanish 5 (however, a minimum grade of “C” is recommended), or department permission
This is the second course in the Spanish Immersion sequence at the high school level, also designed for students who have completed Spanish 5 and desire further preparation for Advanced Placement testing. All classroom interaction is conducted in Spanish. Through a variety of literary works and contemporary themes, students further develop specific skills emphasized in the Advanced Placement Spanish Language and Culture Exam and become more acquainted with the literary concepts of the Advanced Placement Spanish Literature and Culture Exam.
**Major Course Goals:** Students will be able to: 1) refine communication skills, 2) increase their appreciation of literature, 3) achieve success on the AP Spanish Language and Culture Exam.

AP Spanish Language and Culture Exam

8042 ADVANCED SPANISH LITERATURE AND CULTURE/IMMERSION 11  Prerequisite: A passing grade in AP Spanish Language and Culture/Immersion 10 (however, a minimum grade of “C” is recommended), or department permission
This is the third course in the Spanish Immersion sequence at the high school level, and all classroom interaction is conducted in Spanish. This course is aligned with the AP Spanish Literature and Culture/Immersion 12 course to prepare students for the Advanced Placement Spanish Literature and Culture Exam. These two courses and the exam are based on a third-year college survey course in which students explore major works of literature in all the principal literary genres from the Middle Age through our current time—short stories, drama, novels, essays, and poetry—by writers from around the Spanish-speaking world. Students explore the relationship between literature and culture by engaging with major literary and philosophical movements throughout history and experiencing art, music, film, and other cultural products that help students further prepare for and take the Advanced Placement Spanish Language and Culture Exam.
**Major Course Goals:** Students will be able to: 1) refine advanced communication skills, 2) expand verbal and written communication, and 3) achieve success on the AP Spanish Language and Culture Exam, 4) prepare further for the AP Spanish Literature and Culture Exam.

AP Spanish Language and Culture Exam

8043 AP SPANISH LITERATURE AND CULTURE/IMMERSION 12  Prerequisite: A passing grade in Advanced Spanish Literature and Culture/Immersion 11 (however, a minimum grade of “C” is recommended), or department permission
This is the fourth course in the Spanish Immersion sequence at the high school level, and all classroom interaction is conducted in Spanish. Students will complete their study of a representative body of Chicano/Latino, Latin American, and peninsular Spanish literature in preparation for the Advanced Placement Spanish Literature and Culture Exam. Students will have ongoing and varied opportunities to further develop their proficiencies across the full range of language skills—with special attention to critical reading and analytical writing—and will reflect on the many voices, cultures, and contexts reflected in these diverse works in Spanish. In a historical context, students will examine the following six themes of the course: societies in contact, the construction of gender, time and space, literary creation, interpersonal relationships, and the duality of being. Students will demonstrate the ability to think critically by making connections between literary and artistic works produced in different times and in different places, and by finding connections between these works and students’ own experiences.
**Major Course Goals:** Students will be able to: 1) refine advanced communication skills, 2) expand verbal and written communication, and 3) achieve success on the AP Spanish Literature and Culture Exam.

AP Spanish Literature and Culture Exam
COURSE DESCRIPTIONS

5700 HEALTH SCIENCE (10) (Required)
The outcomes for students in health class are designed to fully embed the National Health Standards and study the Health Risk Priority Areas for Youth as outlined by the Centers for Disease Control and Prevention.

Major Course Goals: Students will be able to:
- Find valid and reliable health information, services and products to help prevent, detect and treat health problems.
- Analyze the influences on their health status.
- Advocate for healthful behaviors that improve personal, family and community health and wellness.
- Use decision-making strategies and set goals that contribute to health-enhancing behaviors, and to avoid or reduce health risks.
- Demonstrate knowledge that contributes to avoiding and/or reducing health risks.
- Demonstrate knowledge that contributes to improving health and wellness.

Evaluation: Students will be assessed on knowledge and skill development throughout the semester. Tests, quizzes, writing assignments, application assignments and skill demonstrations will all be utilized to assess student progress.

5704 HEALTH SCIENCE (BLENDED) (10) (with written permission of counselor and parent only) Reliable internet access required outside of school
This is an alternate way to take the required Health Science class in 10th grade. Consider this option if you are an organized, task-oriented, independent learner who needs flexibility in your schedule. There will be weekly assignments and tasks to complete and turn in electronically. You will have lots of online interaction with the teacher and other online learners on a daily and weekly basis, and you will meet with the teacher face-to-face about once a week.

Major Course Goals: Same as for Health Science (10).

Evaluation: Same as for Health Science (10).

5701 ADVANCED HEALTH: PSYCHOLOGY OF SELF-ESTEEM (11-12) Prerequisite: Health Science (10)
Major Course Goals: This modern psychology course is designed for students who wish to study the connection between psychological theory and a healthy lifestyle. Theories of human behavior from William Glasser, Phil McGraw, Steven Covey, Alfie Kohn and Abraham Maslow are studied. The theories are personally applied in order for students to develop skills in positive human interaction, goal attainment, true learning and relationship development. Through the analysis of contemporary theories of learning, success and personality development, students will develop a broad understanding of human behavior. This, in connection with a greater awareness of personal development, will allow students an opportunity to create positive changes in themselves, family, co-curricular, academic and social life.

Evaluation: A variety of assessments will be used for students to demonstrate understanding, skill development and personal growth.

5702 HEALTH CAREERS INVESTIGATION (11-12)
This class is designed for students interested in exploring careers in health care. The purpose of this class is to expose students to several different health care occupations. The topics covered in the units are designed to provide students with the basic knowledge and core skills required for many different health care occupations. Students will also have hands-on practice in First Aid, CPR and AED.
HEALTH, continued

5750 INSIGHTS INTO HEALTH (11-12) Prerequisite: Health 10
In a society where teenagers are bombarded by powerful media messages about quick-fix diet and exercise solutions, body image expectations, professional and college athletics and nutritional supplements, it is crucial they receive valid and current information about what it means to be healthy. This course is designed to provide students with the opportunity to analyze and critique messages received through print, audiovisual, and other media sources. Current literature and trends in the area of sports and exercise physiology will be examined. Through the context of sport and fitness promotion, students will discover the truth about vitamin supplements, body enhancements, strength training, aerobic training and healthy eating patterns that lead to optimal health.
**MATHEMATICS**

Credit value follows in parentheses.

**Standard Courses:**
- 4448-4449 High School Algebra Standard I & II (2)
- Math Squeeze Option:
  - 4840-4841 Geometry/Algebra II 1 & 2 (2)
  - 4844-4845 Algebra II/Pre-Calculus I & II (2)
- 4012-4013 Geometry I & II (2)
- 4010-4011 Algebra II 1 & 2 (2)
- 4046 Algebra II 1 & 2 (Block)
- 4044 Pre-Calculus I & II (2) (Block)
- 4014-4015 Pre-Calculus I & II (2)
- 4022-4023 Pre-Calculus I & II (Blended) (2)*
- 4605-4606 Statistics I & II (2)
- 4842-4843 Calculus I & II (2)

**Advanced Placement Courses:**
- 4805-4806 AP Statistics I & II (2)
- 4801 AP Calculus I & II (Block)
- 4803 AP Calculus III (1)
- 4804 AP Calculus IV (1)

**Elective Courses:**
- 4607-4608 Interactive Math High School Algebra I & II (2) (grade 9 only)
- 4644-4645 Interactive Math Algebra 2 I & II (2) (grades 11 and 12 only)

*See page 5 for **general** information regarding blended courses. See below for **specific** information regarding math blended courses.

**Graduation Requirement:** 6 standard or advanced placement credits.

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### 8TH GRADE MATH COURSE OPTIONS

<table>
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<tr>
<th>OPTIONS</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<td><strong>Algebra 1-8</strong></td>
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<td>MYP Linear</td>
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<td>Algebra <strong>H.S.</strong></td>
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<td><strong>Geometry</strong></td>
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<td><strong>Algebra II</strong></td>
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<td><em>Pre-Calc or Statistics</em></td>
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<td><em>AP Calculus III/III or Statistics</em></td>
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<td><em>AP Calculus</em></td>
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<td><em>or no math if 3-year math req is completed</em></td>
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<td><strong>Squeeze Option in 10th Grade</strong></td>
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<td>H.S. Algebra</td>
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<td>Geometry</td>
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<td>Pre-Calculus</td>
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<td><strong>3 courses in 2 years</strong></td>
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<td><strong>Double Block in 11th Grade</strong></td>
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<td>Geometry</td>
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<td><strong>Pre-Calculus</strong></td>
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<td><strong>3 courses in 2 years</strong></td>
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<td><strong>Higher Algebra</strong></td>
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<td><strong>Algebra II</strong></td>
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<td><em>Pre-Calc or Statistics</em></td>
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**ARMSTRONG MATH SEQUENCE OPTIONS**

*Four years of math in high school are strongly recommended by the Math Department and required by most colleges.*

**Math Blended Courses:** Blended math courses have the same course goals and materials covered as their traditional counterpart, but students meet as a group fewer times. Students are expected to watch video lectures outside of class and communicate with the instructor via email. Blended students should be independent learners and have strong math and organizational skills coming into the course.
Qualifying for the Squeeze Option: Students, parents and teachers can request or recommend a student’s participation in the Squeeze Option. However, students and parents should completely understand and commit to the extra workload required to successfully complete three years of math in two years. In the math squeeze option students complete 3 years of math in 2 years for a total of 4 credits.

The regular sequence is for all students. There is no remedial sequence. Students who need extra math support can be assigned to an additional support math course in lieu of an elective. In such cases students also remain in their regular math class.

All regular and accelerated sequence courses meet current Minnesota Department of Education math standards.

STANDARD COURSE DESCRIPTIONS

4448 HIGH SCHOOL ALGEBRA STANDARD I & II (9)
4449 This course begins with a review of linear relationships. Main topics covered include working with polynomials using the four basic operations, solving first- and second-degree equations, solving first-degree inequalities, factoring polynomials, working with irrational numbers and algebraic fractions. The course is for students who have mastered arithmetic skills and are able to grasp abstract concepts.

Major Course Goals: Students will be able to: 1) solve quadratic equations algebraically, 2) sketch quadratic and exponential equations, 3) compare/contrast tables, graphs and equations, 4) write exponential equations, 5) perform operations with polynomials (evaluating, addition, subtraction, multiplication and factoring), 6) establish a problem-solving procedure through math applications and by being an effective math learner, 7) evaluate data by using data displays and finding summary statistics.

MATH SQUEEZE OPTION: (grades 9&10 or 10&11) Prerequisites: Signature from current math teacher and an A/B in current math course
4840-4841 GEOMETRY/ALGEBRA II 1 & 2
4844-4845 ALGEBRA II/PRE-CALCULUS I & II
This course is for students who have excelled in High School Algebra and can handle the requirements of fast-paced coursework. Students will cover three traditional courses in two years. All essential topics covered in Geometry, Algebra II and Pre-Calculus will be covered in the four semesters. Registering for this assumes a two-year commitment to this advanced course.

4012 GEOMETRY I & II (9-12) Prerequisite: High School Algebra or teacher recommendation
4013 Learning to reason correctly is an important objective of this course. In the study of geometry, students develop and discover important facts concerning figures composed of points, lines, surfaces and solids. Algebraic skills and properties are used throughout the course.

Major Course Goals: Students will be able to: 1) understand and apply the essential vocabulary of points, lines, planes and angles and their properties to solve problems, 2) understand and apply properties of similar and congruent triangles and polygons to solve problems, 3) apply the Pythagorean theorem and trigonometric ratios to solve real world problems, 4) calculate and apply area, surface area, and volume to figures, 5) apply probability concepts including basic counting principles, intersections, unions, compliments and conditional probabilities to solve problems.

4010 ALGEBRA II 1 & 2 (9-12) Prerequisite: Geometry or teacher recommendation
4011 Advanced treatment of topics presented in High School Algebra is given. Considerable emphasis is placed on structure of number systems generalized throughout algebraic expressions. Higher-order equations are examined graphically and algebraically. Algebra II is required for Pre-Calculus and all college math courses.

Major Course Goals: Students will be able to: 1) identify properties of advanced algebraic functions, including shape, domain and range, and transformations, 2) solve and graph quadratic equations, and translate between a graph, table, function, and verbal representation, 3) simplify and solve advanced algebraic expressions including those that are polynomial, radical, exponential, and rational, 4) draw conclusions, make predictions, and justify results using normal distributions, confidence intervals, margin of error, and correlation coefficients.
MATHEMATICS, continued

4046 **ALGEBRA II 1 & 2 (10-12) (block class)** (first semester only)
4044 **PRE-CALCULUS I & II (10-12) (block class)** (second semester only) Prerequisites: Geometry and teacher recommendation

The purpose of these courses is to allow students to “double up” in math for one year to create room for higher level courses the following year. These courses have the same description and major course goals as the yearlong versions. However, since the courses are blocked (two class periods), students should expect twice as much work on a daily basis, more frequent quizzes and tests, and an overall faster pace.

4014 **PRE-CALCULUS I & II (9-12)** Prerequisite: Geometry and Algebra II
4015 This course is an overview of applications of functions.

**Major Course Goals:** Students will be able to: 1) identify and graph relations and linear functions, 2) solve systems of equations using matrices, 3) understand the nature of graphs, 4) use trigonometry functions and the unit circle to solve triangles, 5) graph trigonometric functions, 6) use vectors to solve problems, 7) understand equations and graphs of conics, 7) manipulate exponential and logarithmic functions, 8) apply discrete math and data analysis.

4022 **PRE-CALCULUS I & II (BLENDED) (11-12)** Students must apply with the math department for this course. **Reliable internet access required outside of school.**

Students will meet face to face with a teacher 2 to 3 times per week and will be expected to work independently online.

This course is an overview of applications of functions in addition to circular functions, trigonometric functions and polynomial functions. Understanding trig functions from previous courses is a useful tool in Pre-Calculus.

**Major Course Goals:** Students will be able to: 1) recognize and use relations and functions in applications, 2) graph and use polynomial, trigonometric and rational functions with the aid of a graphing calculator, 3) apply Cartesian coordinates in applicable situations, 4) prove trigonometry identities, 5) use complex numbers in solving problems, 6) identify conics and use exponential and log functions, 7) work with sequence and series problems.

4605 **STATISTICS I & II (11-12) (2 credit, yearlong class)** Prerequisite: Complete Algebra II
4606 **Major Course Goals:** Students will learn methods to 1) explore, organize, and examine data graphically and numerically, 2) use data to make predictions and draw conclusions, 3) collect data, and 4) calculate probabilities related to given data. Students will also be introduced to inference and also plan and complete a statistical study.

4842 **CALCULUS I & II (11-12)** Prerequisite: Pre-Calculus teacher recommendation
4843 This course is designed to be an introduction to calculus. Topics include differentiation, applications of derivatives and integration. **This course does not prepare students for AP Calculus tests.**

**Major Course Goals:** Students will be able to: 1) use limits of a function to help determine instantaneous rates of change, 2) use derivatives to sketch graphs using slopes, critical points and inflection points, 3) understand the use of the product, quotient and chain rules to find derivatives, 4) integrate functions involving algebraic, trigonometric, and logarithmic functions.

**ADVANCED PLACEMENT COURSE DESCRIPTIONS**

4805 **AP STATISTICS I & II (11-12) (2 credit, yearlong class)** Prerequisite: Complete Algebra II
4806 Pre-Calculus is not required, but would be helpful. Students who have not completed these prerequisites need consent of the teacher and a recommendation from your current math teacher.

**Major Course Goals:** Students will learn methods to 1) explore, organize, and examine data graphically and numerically, 2) use data to make predictions and draw conclusions, 3) collect data, 4) calculate probabilities related to given data, and 5) draw conclusions with confidence (inference).
MATHEMATICS, continued

4801 AP CALCULUS I & II (11-12) (block class) (first semester only) Prerequisite: Pre-Calculus I & II or teacher recommendation

A first course in differential and integral calculus.

**Major Course Goals:** Students will be able to: 1) understand the use of functions and their inverses, including algebraic, trigonometric, logarithmic functions and composition of functions, 2) use derivatives to sketch graphs using slopes, critical points and inflection points, 3) understand the use of the product, quotient and chain rules to find derivatives, 4) integrate functions involving algebraic, trigonometric, and logarithmic functions, 5) evaluate definite integrals and use integration techniques to find areas, volumes and solve differential equations, 6) use graphing utilities to determine solutions to a problem and to support results determined from analytic solutions to a problem.

4803 AP CALCULUS III (11-12) (second semester only) Prerequisite: AP Calculus I & II

A continuation of differential and integral calculus. A fairly intense review of the entire calculus course is provided before the students take the AP Calculus AB exam.

**Major Course Goals:** Students will be able to: 1) apply techniques of integration to evaluate indefinite integrals, 2) evaluate definite integrals using numerical methods, 3) apply the concepts of integration to work problems and to do problems relating to rates of growth and decay, 4) solve problems using parametric equations and polar coordinates, 5) use graphing utilities throughout the course to solve problems.

4804 AP CALCULUS IV (12) (second semester only) Prerequisite: AP Calculus III

A continuation of differential and integral calculus. Students will take the AP Calculus BC exam in the spring.

**Major Course Goals:** Students will be able to: 1) evaluate proper integrals, 2) solve problems using parametric and polar equations, 3) solve problems using infinite sequences and series.

**ELECTIVE COURSE DESCRIPTIONS**

4607 INTERACTIVE MATH HIGH SCHOOL ALGEBRA I & II (grade 9 only) (elective credit only)

**Prerequisite:** Recommendation from 8th grade math teacher

This course is intended to assist students simultaneously enrolled in High School Algebra. The course is designed to help fill any mathematical gaps that may be encountered as they are covering material in the High School Algebra course. It is also intended to support topics as they are being covered in High School Algebra. It is for elective credit only.

4644 INTERACTIVE MATH ALGEBRA 2 I & II (grades 11 and 12 only) (elective credit only)

**Prerequisite:** Recommendation from geometry teacher

This course is intended to assist students simultaneously enrolled in Algebra 2. The course is designed to help fill any mathematical gaps that may be encountered as they are covering material in the Algebra 2 course. It is also intended to support topics as they are being covered in Algebra 2. It is for elective credit only.
MUSIC

Credit value follows in parentheses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>7404-7405</td>
<td>Freshman Women's Choir I &amp; II (2)</td>
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<td>7406-7407</td>
<td>Freshman Men's Choir I &amp; II (2)</td>
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<tr>
<td>7806-7807</td>
<td>Concert Choir I &amp; II (2)</td>
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<tr>
<td>7844-7845</td>
<td>Cantori I &amp; II (2)</td>
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<td>7402-7403</td>
<td>Freshman Band I &amp; II (2)</td>
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<td>7442-7443</td>
<td>Freshman Choir/Freshman Orchestra I &amp; II (1/2 credit each)</td>
<td>and</td>
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<tr>
<td>7446-7447</td>
<td>Freshman Orchestra/Freshman Choir I &amp; II (1/2 credit each)</td>
<td>for ninth graders who wish to take both orchestra and choir, meeting each on alternating days.</td>
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<td>7444-7445</td>
<td>Freshman Band/Freshman Choir I &amp; II (1/2 credit each)</td>
<td>for ninth graders who wish to take both band and choir, meeting each on alternating days.</td>
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<td>7840-7841</td>
<td>Varsity Women's Choir/Concert Band I &amp; II (1/2 credit each)</td>
<td>and</td>
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<tr>
<td>7801-7802</td>
<td>Concert Band/Varsity Women's Choir I &amp; II (1/2 credit each)</td>
<td>for 10th through 12th graders who wish to take both band and choir, meeting each on alternating days.</td>
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<td>7713-7714</td>
<td>Varsity Women's Choir/Philharmonic Orchestra I &amp; II (1/2 credit each)</td>
<td>and</td>
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<tr>
<td>7707-7708</td>
<td>Philharmonic Orchestra/Varsity Women's Choir I &amp; II (1/2 credit each)</td>
<td>for 10th through 12th graders who wish to take both orchestra and choir, meeting each on alternating days.</td>
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<td>Varsity Men's Choir/Concert Band I &amp; II (1/2 credit each)</td>
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<td>Varsity Men's Choir/Philharmonic Orchestra I &amp; II (1/2 credit each)</td>
<td>and</td>
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<tr>
<td>7707-7708</td>
<td>Philharmonic Orchestra/Varsity Men's Choir I &amp; II (1/2 credit each)</td>
<td>for 10th through 12th graders who wish to take both orchestra and choir, meeting each on alternating days.</td>
</tr>
</tbody>
</table>

NOTE: Instrumental music performance classes have scheduled sectionals for which there is no additional credit.

COURSE DESCRIPTIONS

CHORUS

At Robbinsdale Armstrong, the choirs are open to all students in grades 9-12. Each choir stresses the development of music reading, singing skills, familiarization with many styles of choral literature and attainment of musical knowledge. Choir members participate in concert and contest/festival performances. Attendance is required at daily and special rehearsals and at all performances. Outside concert attendance may be required. Evaluation: Grading is based on ensemble participation, skill tests, and performances.

7404 FRESHMAN WOMEN'S CHOIR I & II* (SATB 9)
7405 Major Course Goals: Students will develop music reading skills, voice technique, ear-training and performance practices. Balanced repertoire includes classical, folk and popular literature, sacred and secular. Each member is expected to participate in public concerts.
*Meets Arts Education requirement.

7406 FRESHMAN MEN'S CHOIR I & II* (SATB 9)
7407 Major Course Goals: Students will develop music reading skills, voice technique, ear-training and performance practices. Balanced repertoire includes classical, folk and popular literature, sacred and secular. Each member is expected to participate in public concerts.
*Meets Arts Education requirement.

7442 FRESHMAN CHOIR/FRESHMAN ORCHESTRA I & II" (1/2 credit each)
7443 See description for Freshman Choir. Must take with 7446-7447 Freshman Orchestra/Freshman Choir.
*Meets Arts Education requirement.
MUSIC, continued

7440 FRESHMAN CHOIR/FRESHMAN BAND I & II* (1/2 credit each)
7441 See description for Freshman Choir. Must take with 7444-7445 Freshman Band/Freshman Choir.
*Meets Arts Education requirement.

7440 VARSITY WOMEN’S CHOIR I & II* (SSA 10-12)
7441 Major Course Goals: Students will develop music reading skills, voice technique, ear-training and performance practices. Balanced repertoire includes classical, folk and popular literature, sacred and secular. Each member is expected to participate in public concerts, festivals and state music contest.
*Meets Arts Education requirement.

7740 VARSITY WOMEN’S CHOIR I & II* (1/2 credit each)
7741 See description for Freshman Choir. Must take with 7744-7745 Freshman Band/Freshman Choir.
*Meets Arts Education requirement.

7840 VARSITY WOMEN’S CHOIR/CONCERT BAND I & II* (1/2 credit each)
7841 See description for Varsity Women’s Choir. Must take with 7801-7802 Concert Band/Varsity Women’s Choir.
*Meets Arts Education requirement.

7713 VARSITY WOMEN’S CHOIR/PHILHARMONIC ORCHESTRA I & II* (1/2 credit each)
7714 See description for Varsity Women’s Choir. Must take with 7707-7708 Philharmonic Orchestra/Varsity Women’s Choir.
*Meets Arts Education requirement.

7742 VARSITY MEN’S CHOIR I & II* (TBB 10-12)
7743 Major Course Goals: Students will develop music reading skills, voice technique, ear-training and performance practices. Balanced repertoire includes classical, folk and popular literature, sacred and secular. Each member is expected to participate in public concerts, festivals and state music contest.
*Meets Arts Education requirement.

7842 VARSITY MEN’S CHOIR/CONCERT BAND I & II* (1/2 credit each)
*Meets Arts Education requirement.

7715 VARSITY MEN’S CHOIR/PHILHARMONIC ORCHESTRA I & II* (1/2 credit each)
*Meets Arts Education requirement.

7806 CONCERT CHOIR I & II* (SATB 11-12) Prerequisite: Audition
7807 Members are chosen for advanced musicianship, vocal ability and workmanship. Members are required to participate in all public concerts, music contests and festivals, and performance tours. Auditions are open each spring for the following year.
Major Course Goals: Students will study and perform a wide variety of a cappella and accompanied choral literature. Students will develop music-reading skills, voice technique, and ear training.
*Meets Arts Education requirement.

7844 CANTORI I & II* (SSAA 11-12) Prerequisite: Audition
7845 Members are chosen for advanced musicianship, vocal ability and workmanship. Members are required to participate in all public concerts, music contests and festivals, and performance tours. Auditions are open each spring for the following year.
Major Course Goals: Students will study and perform a wide variety of a cappella and accompanied choral literature. Students will develop music-reading skills, voice technique, and ear training.
*Meets Arts Education requirement.

INSTRUMENTAL MUSIC COURSES

Major Course Goals: Instrumental music band and orchestra students will be able to: 1) Develop an appreciation of music through playing an instrument, 2) learn the proper approach to the instrument of choice such as hand position, bowing technique and proper breathing, 3) learn how to play scales on a musical instrument, 4) develop the ability to play repertoire alone and in the group situation, 5) learn good rehearsal and performance etiquette, 6) develop good practice habits and the discipline needed to perform, 7) recognize and
**MUSIC, continued**

develop a good tonal concept, 8) demonstrate the ability to understand and interpret musical terms, 9) apply the use of increasingly difficult rhythmic patterns in a musical performance, 10) understand and perform dynamics, tempo and articulation, 11) experience solo and small-ensemble participation, 12) learn to perform music with varied tempos and complex harmonies, 13) apply knowledge of pitch and tuning to performance, 14) learn to recognize pulse in music, 15) develop a sense of appropriate style, and be aware of origin with regard to the different periods of music such as baroque, classical, romantic and modern, 16) develop vibrato and its appropriate usage, 17) learn how to read and interpret a printed score, 18) develop a rehearsal plan for a minimum of three music performances, and 19) prepare and perform at least three music selections at state region solo and ensemble contest and/or a concert situation.

**Evaluation:** Grades will be determined by written and playing tests, listening tests, class participation and performance.

**BANDS**

At Robbinsdale Armstrong, students in grades 10-12 with background in band are enrolled in Concert Band or are accepted, by audition, into Symphonic Band. Band students in grade nine will be enrolled in the Freshman Band. Each band receives full credit. Each member is required to participate in all concert and contest performances and are required to perform several times in Pep Bands at athletic events.

7402 **FRESHMAN BAND I & II** (9) Prerequisite: Previous instrumental music experience

7403 In addition to the study of band literature, band members lend support to various school activities by playing appropriate music. Students will attend sectional lessons. Members are individually tested each quarter. Members are encouraged to participate in the fall football marching band and are assigned to a pep band. Attendance is required at all performances.

*Meets Arts Education requirement.

7808 **CONCERT BAND I & II** (9-12) Prerequisite: 10th-12th graders with prior band experience; this course generally meets 3rd period

7809 Concert Band is a large band ensemble composed of 10th-12th grade students that meets everyday. A wide variety of band literature is studied and performed. Students will be assessed through playing and written evaluations. Although not a requirement for membership, all Concert Band members are encouraged to study privately in order to further develop personal musical understanding, appreciation, performance techniques, and musicianship. Additionally, members are expected to practice on a regular basis, attend sectionals, concerts, pep band, and are encouraged to participate in the fall marching band.

*Meets Arts Education requirement.

7444 **FRESHMAN BAND/FRESHMAN CHOIR I & II** (1/2 credit each)

7445 See description for Freshman Band. Must take with 7440-7441 Freshmen Choir/Freshman Band.

*Meets Arts Education requirement.

7801 **CONCERT BAND/VARSITY MEN’S OR WOMEN’S CHOIR I & II** (1/2 credit each)

7802 Prerequisite: 10th-12th graders with prior band experience; this course generally meets 3rd period and students alternate days between Concert Band and the Men’s or Women’s Varsity Choir.

See description for Concert Band. Must take with either 7842-7843 Varsity Men’s Choir/Concert Band or 7840-7841 Varsity Women’s Choir/Concert Band.

*Meets Arts Education requirement.

7701 **SYMPHONIC BAND I & II** (10-12) Prerequisite: Prior band experience; placement by audition with band director; this course generally meets 6th hour

7702 Symphonic Band is a large band composed of 10th-12th grade students that meets everyday. A variety of advanced band literature is studied and performed. This band participates in the Conference and Region VAA Band Contests and Festivals. Students will be assessed through playing and written evaluations. Although not a requirement for membership, all Symphonic members are encouraged to study privately in order to further develop personal musical understanding, appreciation, performance techniques, and musicianship. Additionally, Symphonic Band members are expected to practice on a regular basis, attend sectionals, concerts and pep band. Symphonic members are required to participate in the fall marching band. This group tours every year.

*Meets Arts Education requirement.
ORCHESTRA

At Robbinsdale Armstrong, the orchestras are open to students in grades 9-12. All 9th graders must register for Freshman Orchestra. Philharmonic Orchestra is open to students in grades 10-12 and the Symphony Orchestra is open by audition to 10th through 12th graders. Each orchestra stresses the development of music theory, familiarization with varying styles of orchestral literature and attaining a general knowledge of the current performing scene, as well as historical components of orchestral music. Each orchestra member is required to participate in all concerts, contest/festival performances, and sectionals.

**Evaluation:** Grading is based on contribution to the orchestra, musical development on instrument, written and playing tests and concert attendance. Personal practice is required in each orchestra.

7452 FRESHMAN ORCHESTRA I & II* (9) Prerequisite: Previous instrumental music experience or permission of instructor

The Armstrong Freshman Orchestra performs standard string orchestra works, as well as varying musical styles in a number of different venues. Students will further develop their instrumental technique through contest/festival opportunities and become grounded in standard music theory. Attendance is required at all sectionals, rehearsals and performances.

*Meets Arts Education requirement.

7705 PHILHARMONIC ORCHESTRA I & II* (10-12) Prerequisite: Previous instrumental music experience or permission of instructor

The Armstrong Philharmonic Orchestra performs standard string orchestra works, as well as varying musical styles in a number of different venues. Students will further develop their instrumental technique through contest/festival opportunities and become grounded in standard music theory. Attendance is required at all sectionals, rehearsals and performances.

*Meets Arts Education requirement.

7703 SYMPHONY ORCHESTRA I & II* (10-12) Prerequisite: Audition

The Armstrong Symphony Orchestra performs standard orchestral works as a string orchestra and a full symphony orchestra. Members of the Symphonic Band complete the woodwind, brass, and percussion sections for three performances per year. Major annual performances include winter and spring concerts, the Region 6AA Solo/Ensemble Festival, the District Music Festival at Orchestra Hall, and the Northwest Suburban Conference Music Festival.

*Meets Arts Education requirement.

7446 FRESHMAN ORCHESTRA/FRESHMAN CHOIR I & II* (1/2 credit each)  
7447 Orchestra students are responsible for all course work, sectionals and performances of both courses. Must take with 7442-7443 Freshman Choir/Freshman Orchestra.

*Meets Arts Education requirement.

7707 PHILHARMONIC ORCHESTRA/VARSITY MEN'S OR WOMEN'S CHOIR I & II* (1/2 credit each)  
7708 Prerequisite: 10th-12th graders with prior orchestra experience; this course generally meets 3rd period and students alternate days between Philharmonic Orchestra and the Men's or Women's Varsity Choir.

See description for Philharmonic Orchestra. Must take with either 7715-7716 Varsity Men's Choir/Philharmonic Orchestra or 7713-7714 Varsity Women's Choir/Philharmonic Orchestra.

*Meets Arts Education requirement.

ADDITIONAL COURSES

7744 MUSIC THEORY I & II*

7745 Understand the various musical elements. Develop musical and rhythmic listening skills by drilling melodic and rhythmic dictation. The text and worksheets provide a good foundation for understanding music theory. Notate your own arrangements of existing music and also create your own rhythmic and melodic compositions. Learn the Finale printing software to print music from the computer. Music keyboards and synthesizers will be used for extensive music composition, music theory practice, and music sequencing. Ear-training software will be used for melodic dictation and interval recognition. Four other music software programs will teach many various musical concepts. There will be a short guitar unit where students will learn chords and notes and other basics of guitar playing.

**Major Course Goals:** Students will compose either a theme and variation for an ensemble or a series of three solos or etudes with an appropriate accompaniment.

**Evaluation:** Evaluation will be by portfolio review, student checklist, audience and teacher evaluation and critique.

*Meets Arts Education requirement.
MUSIC, continued

7804 AP MUSIC THEORY I & II*
This is a college level music theory course with the AP Exam being only one significant part of many aspects of the program. Students can earn college credit and be granted advanced placement in college. The AP music theory has the same description as music theory except more material is covered and in greater depth. Time is devoted to: 1) the analysis of score study, 2) aural listening skills, sight singing, keyboard harmony, and 3) two-part and four-part writing harmonization. Students will be very active in the computer lab working with MIDI keyboards and learning to write music with the Finale printing program, and working with many other drill and practice software programs.

**Major Course Goals:** Students will demonstrate an understanding of music fundamentals including notation, scales, intervals, transposition, and chords. Students will analyze cadences and nonharmonic tones, melodic organization, textures, voice leading, harmonic progression, seventh chords, secondary dominants and form. Students will compose a major composition in the second semester.

**Evaluation:** Required assignments, compositions, short tests, melodic dictation and the AP exam.
*Meets Arts Education requirement.

7746 MUSIC CAFÉ*
This course is open to all students at Armstrong High School in grades 10 through 12. No past musical experience is required for this course. Registration may be limited. During the first half of the class, students will study and perform African drumming and other world music. The second half of the course features the following aspects of American music: acoustic guitar performance, Native American flute performance, film music study, and history of jazz and rock. Throughout this course we will examine different music career options available in today’s society.
*Meets Arts Education requirement.

EXTRA CURRICULAR MUSICAL GROUPS
(NO CREDIT COURSES)

<table>
<thead>
<tr>
<th>Freshman Madrigal Singers (9)</th>
<th>Jazz Ensemble I &amp; II (10-12)</th>
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<tbody>
<tr>
<td>Varsity Madrigal Singers (10-12)</td>
<td>Armstrong Marching Band (9-12)</td>
</tr>
<tr>
<td>Diva Voce (10-12)</td>
<td>Armstrong Chamber Strings (9-12)</td>
</tr>
<tr>
<td>Armstrong Chamber Singers (11-12)</td>
<td></td>
</tr>
</tbody>
</table>

**FRESHMAN MADRIGAL SINGERS** (9) (no credit) Prerequisite: Audition (24 singers)
This advanced choral ensemble provides gifted and highly motivated freshmen the opportunity to perform music composed for smaller ensembles. Students will: 1) perform madrigal literature and other traditional and contemporary vocal music, 2) participate in public concerts, state music contests, and festivals.

**VARSITY MADRIGAL SINGERS** (10-12) (no credit) Prerequisite: Audition (24 singers)
This advanced choral ensemble provides gifted and highly motivated Varsity Choir members the opportunity to learn and to perform music composed for smaller ensembles. Students will: 1) perform madrigal literature and other traditional and contemporary vocal music, 2) participate in public concerts, state music contests, and festivals.

**DIVA VOCE** (10-12) (no credit) Prerequisite: Audition (9-12 singers)
This advanced choral ensemble provides gifted and highly motivated Cantori Choir members the opportunity to learn and to perform music composed for smaller ensembles. Students will: 1) perform madrigal literature and other traditional and contemporary vocal music, 2) participate in public concerts, state music contests, and festivals.

**ARMSTRONG CHAMBER SINGERS** (SATB) (no credit) (11-12) Prerequisite: Audition (24 singers)
This advanced choral ensemble provides opportunity for gifted and highly motivated Concert Choir members to perform advanced chamber literature. Students will: 1) perform madrigal and other traditional and contemporary vocal music, 2) participate in public concerts, state music contests, festivals, 3) prepare programs for community presentation, 4) represent Armstrong High School and the district in a variety of venues.

**Requirements:** Individual commitment of time is required. Each member assumes travel and uniform expenses.
**MUSIC, continued**

**JAZZ ENSEMBLE I** (no credit) (10-12) Prerequisite: Audition by instructor

This group devotes its study to music of jazz, swing or rock. Members are required to participate in all public concerts, music contests and festivals, and performance tours.

**JAZZ ENSEMBLE II** (no credit) (9-12) Prerequisite: Permission of instructor

This group devotes its study to music of jazz, swing or rock. Members are required to participate in all public concerts, music contests and festivals, and performance tours.

**ARMSTRONG MARCHING BAND** (no credit) (9-12) Prerequisite: All Symphonic Band members are required to march with the addition of highly motivated Concert and Freshman Band members.

**Major Course Goals:** Students will perform high quality street marching and field marching.

**Requirements:** Students are required to attend rehearsals in the summer and fall. Members are required to attend all performances and assume the responsibility of minor uniform expenses.

**ARMSTRONG CHAMBER STRINGS** (no credit) (9-12) Prerequisite: Audition by instructor

This advanced string ensemble devotes its study to chamber music. The group performs at the 6AA Solo and Ensemble Festival, the March All District Orchestra Festival, the May concert, and various community events. Individual commitment of time is required.
PHYSICAL EDUCATION

Credit value follows in parentheses.

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<tr>
<th>Course Code</th>
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<td>6503</td>
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<td>6022</td>
<td>Team and Lifetime Sports (9-10)</td>
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<td>6023</td>
<td>Weight Training: Beginning to Intermediate Level (9-10)</td>
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<tr>
<td>6025</td>
<td>Net and Racquet Sports (9-10)</td>
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<td>6008</td>
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</table>

*See page 5 for blended course information.

PHYSICAL EDUCATION – SPECIAL EDUCATION

6010-6011 DAPE I & II (2)

COURSE DESCRIPTIONS

6401 PHYSICAL EDUCATION 9 (Required)

Ninth grade physical education classes include many fitness activities in the following categories: cardiovascular endurance, muscle endurance, muscle strength and flexibility. Team and lifetime activities are also experienced.

**Major Course Goals:** Students shall use decision-making processes to select appropriate physical activities to achieve fitness and shall demonstrate understanding of the training necessary to improve fitness and the rules and skills associated with physical activities.

**Evaluation:** 80% of grade is based on participation in class activities and written assignments; 10% of grade is based on a comprehensive final test; 10% of grade is based on enrichment points.

6503 PHYSICAL EDUCATION 10 (Required)

Tenth grade physical education classes include many fitness activities in the following categories: cardiovascular endurance, muscle endurance, muscle strength and flexibility. Team and lifetime activities are also experienced.

**Major Course Goals:** Students shall use decision-making processes to select appropriate physical activities to achieve fitness and shall demonstrate understanding of the training necessary to improve fitness and the rules and skills associated with physical activities.

**Evaluation:** 80% of grade is based on participation in class activities and written assignments; 20% of grade is based on a comprehensive final test.

ELECTIVE COURSES FOR FRESHMEN AND SOPHOMORES:

6022 TEAM AND LIFETIME SPORTS (9-10 only)

This class will be modified from the section for 11th and 12th graders to meet the needs and skill levels of 9th and 10th graders.

Sports activities concentrate on both team competition and recreational activities. Activities include badminton, flag football, softball, volleyball, soccer, bowling, floor hockey, and basketball.

**Emphasis is placed on advanced skills and strategy.**

**Major Course Goals:** Students will be able to: 1) develop a sense of physical, mental and social well-being, self-discipline, cardiovascular endurance, an enjoyment of lifetime leisure activities and a respect for the differences and abilities of others, 2) understand the benefits of physical and mental relaxation in a stressful environment, 3) participate in a variety of lifetime leisure activities.

**Evaluation:** 80% of grade is based on participation, attendance and skills; 20% of grade is based on a comprehensive final test.

6023 NET AND RACQUET SPORTS (9-10 only)

This class will be modified from the section for 11th and 12th graders to meet the needs and skill levels of 9th and 10th graders.

Individual, dual, and team activities allow students to work on skills and fundamentals of sports that include a racquet and/or net. These activities include tennis, indoor volleyball, soccer, badminton, pickle ball, table tennis, floor hockey and lacrosse.

**Major Course Goals:** Students will be able to: 1) develop a sense of physical, mental and social well-being, self-discipline, cardiovascular endurance, and an enjoyment of lifetime activities that involve a net or racquet, 2) will experience the competitive nature of individual, partner, and group activities, 3) will develop strategies and skills for each activity that will enhance their creativity in a competitive environment.
**PHYSICAL EDUCATION, continued**

**Evaluation:** 80% of grade is based on participation in class activities; 20% of grade is based on a comprehensive final test.

6025 **WEIGHT TRAINING: BEGINNING TO INTERMEDIATE LEVEL (9-10 only)**
This class will be modified from the section for 11th and 12th graders to meet the needs and skill levels of 9th and 10th graders.
This is a physical education class intended for those who would like to learn how to use “free” weights and weight machines correctly in order to enhance their current level of strength, physical fitness and self-esteem. Class will include fun weekly strength and endurance competitions. The class will culminate with an individual and group competition calculating students’ power index.

**Major Course Goals:** Students will be able to: 1) set up their own individualized programs by the end of the semester, 2) work on weight training programs to improve their current level of strength and fitness, 3) demonstrate basic knowledge about the muscular system as it relates to weight training, 4) learn to execute the two Olympic lifts.

**Evaluation:** 80% of grade will be earned through attendance and participation; 20% of grade will be evaluated through practical tests on exercise technique of the weight training exercises and Olympic lifts taught.

**ELECTIVE COURSES FOR JUNIORS AND SENIORS:**

6002 **TEAM AND LIFETIME SPORTS (11-12 only)**
Sports activities concentrate on both team competition and recreational activities. Activities include badminton, flag football, softball, volleyball, soccer, bowling, floor hockey, and basketball.

**Major Course Goals:** Students will be able to: 1) develop a sense of physical, mental and social well-being, self-discipline, cardiovascular endurance, an enjoyment of lifetime leisure activities and a respect for the differences and abilities of others, 2) understand the benefits of physical and mental relaxation in a stressful environment, 3) participate in a variety of lifetime leisure activities.

**Evaluation:** 80% of grade is based on participation, attendance and skills; 20% of grade is based on a comprehensive final test.

6017 **PHYSICAL EDUCATION (BLENDED) (10-12 only)** *Reliable internet access required outside of school*
Physical education blended students will record workouts/activities done at home or in the community interactively from their home computer, iPad, or smart phone. Students will meet with physical education teacher around 10 times to complete physical fitness testing. Any quizzes, tests, or assignments will be done online. This class will fulfill 1 credit of the student’s required 2 physical education credits to graduate.

6009 **COMPETITIVE TEAM AND PARTNER SPORTS (12 only)**
This class can be taken by seniors only.
This is a physical education class that offers a high level of competition in team and partner sports for senior students. The units will include football, lacrosse, soccer, softball, Frisbee golf, basketball, badminton, volleyball, pickle ball, and floor hockey.

**Major Course Goals:** Students will be able to: 1) participate in a variety of activities with an emphasis on competitive team and partner play and tournaments, 2) experience competition and advanced play through team, partner and individual sport activities, 3) develop a sense of physical, mental, and social well being through the enjoyment of sports and recreational activities.

**Evaluation:** 90% of grade is based on participation, attendance, and being prepared for class (clothing); 10% of grade is based on a comprehensive final test.

6005 **WEIGHT TRAINING: BEGINNING TO INTERMEDIATE LEVEL (11-12 only)**
This is a physical education class intended for those who would like to learn how to use “free” weights and weight machines correctly in order to enhance their current level of strength, physical fitness and self-esteem. Class will include fun weekly strength and endurance competitions. The class will culminate with an individual and group competition calculating students’ power index.

**Major Course Goals:** Students will be able to: 1) set up their own individualized programs by the end of the semester, 2) work on weight training programs to improve their current level of strength and fitness, 3) demonstrate basic knowledge about the muscular system as it relates to weight training, 4) learn to execute the two Olympic lifts.

**Evaluation:** 80% of grade will be earned through attendance and participation; 20% of grade will be evaluated through practical tests on exercise technique of the weight training exercises and Olympic lifts taught.
6006 ADVANCED WEIGHT TRAINING (11-12 only)
Prerequisite: The Beginning to Intermediate Weight Training class must be taken before you can
take the Advanced lifting class.

Major Course Goals: Students will be able to: 1) design and follow intermediate to advanced
level weight training programs, 2) understand how to set up and follow an “in season” training
program to maintain strength and prevent injuries. Class will include fun weekly strength and
endurance competitions. The class will culminate with an individual and group competition
calculating students’ power index.

Evaluation: 80% of grade will be earned through attendance and participation; 20% of grade will
be evaluated through oral and practical tests on proper exercise technique and program design.

6003 NET AND RACQUET SPORTS (11-12 only)
Individual, dual, and team activities allow students to work on skills and fundamentals of sports that
include a racquet and/or net. These activities include tennis, indoor volleyball, soccer, badminton,
pickle ball, table tennis, floor hockey and lacrosse.

Major Course Goals: Students will be able to: 1) develop a sense of physical, mental and social
well-being, self-discipline, cardiovascular endurance, and an enjoyment of lifetime activities that
involve a net or racquet, 2) will experience the competitive nature of individual, partner, and group
activities, 3) will develop strategies and skills for each activity that will enhance their creativity in a
competitive environment.

Evaluation: 80% of grade is based on participation in class activities; 20% of grade is based on
a comprehensive final test.

6001 SPORTS AND LEISURE (11-12 only)
This class offers exposure to recreational and leisure lifetime activities, as well as core sports.
Recreation and leisure activities include bocce ball, table tennis, bowling, volleyball, basketball,
floor hockey, tennis, badminton, board games, and pickle ball. Sports units included are softball,
volleyball, basketball and kickball. Students may be required to change for some units.

Major Course Goals: Students will be able to: 1) develop a sense of physical, mental and social
well-being, self-discipline and enjoyment of lifetime leisure activities, 2) participate in numerous
indoor and outdoor sports and recreation lifetime activities.

Evaluation: 80% of grade is based on participation and attendance; 20% of grade is based on
exams.

6008 SPECIAL ED PHY ED ASSISTANT (11-12 only)
This course provides an opportunity for students to assist a physical education teacher in the teaching
of a special education student.

This course can be taken in place of a seventh class per semester.

Evaluation: 75% of grade is based on participation, attendance and skills; 25% is based on
knowledge.

PHYSICAL EDUCATION – SPECIAL EDUCATION

6010 DAPE I & II
6011 This course is for students who require adaptive physical education through an Individual Education
Program (IEP) plan.

Major Course Goals: Students will be able to: 1) demonstrate kinesthetic awareness through
movement exploration and progressive improvement in physical fitness and skills, 2) practice
fundamentals of good sportsmanship, safety, hygiene and personal health habits, and spectator
skills, 3) enjoy a variety of competitive programs and activities, identify recreational interests and
make sound decisions concerning recreational participation, 4) develop an awareness of the
principles of proper body maintenance and demonstrate knowledge of the principles of proper
nutrition, 5) demonstrate knowledge of the basic rules, etiquette and strategies necessary to
participate in physical education, competitive and recreational activities.

Evaluation: 75% of grade is based on participation, attendance and skills; 25% of grade is based on
knowledge.
SCIENCE

Credit value follows in parentheses.

3401-3402 Regular Physical Science I & II (2) 3741 AP Chemistry (1)
3743-3744 Pre-AP Physical Science I & II (2) 3742 Intro to Organic Chemistry (1)
3501-3502 Biology I & II (2) 3046-3047 AP Environmental Science I & II (2)
3540-3541 AP Biology I & II (2) 3848-3849 Physics I & II (2)
3044 Minnesota Ecology (2) 3842 Enriched Physics (calculus based) (2)
3705-3706 Principles of Chemistry I & II (2) 3843 AP Physics (calculus based) (1)
3701-3702 Modern Chemistry I & II (2) 3001 Anatomy and Physiology (1)
3740 Enriched Chemistry (2) 3002 Earth and Space (1)

COURSE DESCRIPTIONS

3401 REGULAR PHYSICAL SCIENCE I & II (9)
3402 This is a two-semester course. Material covered is beginning chemistry and physics. Students will qualitatively develop the concept of atoms and the small particle model of matter. Students will be introduced to chemistry and physics in a hands-on lab setting with the small particle model of matter theme emphasized and applied throughout the entire course.

Major Course Goals: Students will be able to: 1) observe and experiment systematically, 2) use various types of scientific measurement equipment, 3) understand energy and its changes from one form to another, 4) develop and understand an atomic model, 5) apply the atomic model to different situations studied in the course, 6) understand the properties of density, melting point, freezing point, boiling point, and solubility, 7) understand the nature of mixtures, pure substances, compounds and elements, molecules and atoms, 8) work with and understand chemical reactions on an atomic scale.

Evaluation: Tests and quizzes, WS problems, notebook and lab work for each chapter.

3743 PRE-AP PHYSICAL SCIENCE I & II (9)
3744 Student Selection: This course is intended for exceptional students who generally fall in the top 20% of their class as well as students who score in the 80% range and above on standardized tests. It is appropriate for Pre-AP students, MYP students, and students with a strong background in math and science. Grades of “B” or better are expected in 7th and 8th grade math and science classes. Transcripts will be screened prior to the year to determine the eligibility of each candidate.

Enrichment: The course includes all of the elements of Regular Physical Science I and II as described in this course guide. However, in this course, the material of the Regular Physical Science I and II course will be covered more rapidly. This will leave additional time to explore physics topics such as motion, Newton’s Laws, simple machines, waves, sound, light and electricity. Additionally, chemistry topics such as atomic structure, the Periodic Table, chemical bonding and chemical reactions will be covered in much greater detail.

Future Course Work: The course is designed to present additional challenges and experiences to qualified students and will better prepare students for future science courses such as: Biology and AP Biology, Modern Chemistry and AP Chemistry, and Physics and AP Physics.

3501 BIOLOGY I & II (10-12)
3502 In this course we will use class work, inquiry, laboratory study and independent study skills to explore the following essential outcomes: 1) students will be able to design, implement, and analyze a scientific investigation, 2) students can demonstrate an understanding of the characteristics of life and what is required to maintain life, 3) students can demonstrate an understanding of the relationship between the structure and function of living systems, 4) students can demonstrate an understanding that organisms and living systems change over time, 5) students can demonstrate an understanding of the ways in which humans impact living systems.

This course will provide appropriate preparation for a student who is going to study additional science in college.

Evaluation: Based on tests, projects, labs and homework.

3540 AP BIOLOGY I & II (Enriched) (10-12) Prerequisite: Demonstration of academic excellence in past schoolwork, high test scores, high grades, teacher recommendation
3541 This biology course has the same description as Biology except more material is covered and in greater depth. Enrollment qualifies you to take the Advanced Placement Biology test given in May, which may qualify you for exemption of an Introductory College Biology course.

Evaluation: Based on tests which may be written or oral, labs, papers, text material or other assigned work.
**MINNESOTA ECOLOGY** (11-12) Prerequisite: Completion of Biology or AP Biology

This course will focus on Minnesota’s freshwater ecosystems and the state’s three major land biomes (prairies, deciduous forests, and boreal forests). Students will study the interactions of organisms within these environments, along with the physical environments themselves. We will also compare these systems to the ecology in other parts of the world. This course will include lab activities, outdoor field work, field trips, individual research and projects to study Minnesota’s natural resources. Medicine Lake will serve as one of our field research areas. This is a hands-on science course. You will go outside during this class.

**Evaluation:** Lab work, projects, and class assignments will make up most of the grade, along with one test per quarter.

**PRINCIPLES OF CHEMISTRY I & II** (11-12) Prerequisite: Minimum math requirements - successful completion of Algebra I

This course is designed for students who have an interest in attending post-secondary school, but are not planning to pursue a career in science-related fields. Most students who take this class are Biology students who struggle in either science or mathematics. Students wanting to attend college for science-related fields, including medicine and engineering, are urged to take the college prep Modern Chemistry class. Students in this class study atomic structure, bonding, formula writing, chemical reactions, states of matter, solutions, gases, and calculations involving elements and compounds.

**Major Course Goals:** Students will be able to: 1) follow written and verbal directions in a laboratory situation, 2) analyze data collected in laboratory work and draw conclusions from data collected, 3) understand the ideas and basic concepts of matter, 4) understand the concepts of chemistry in order to solve problems relating to chemical laws in a logical procedure, 5) solve problems using the factor-label method.

**Evaluation:** Based on homework, laboratory reports, and tests.

**MODERN CHEMISTRY I & II** (11-12) Prerequisite: Minimum math requirements – Completion of Algebra I or currently enrolled in Algebra II

This course is a college prep course intended to teach the concepts of chemistry. This course is a must for students considering a four-year degree in a science field or for students who have been successful in previous science and math classes. Students who struggle in mathematics are encouraged to take Principles of Chemistry. Students study metric measurements, atomic structure, periodic classification, bonding, formula writing, chemical nomenclature, chemical equations, types of chemical reactions, calculations involving element and compounds, solids/liquids/gases, water, solutions, acids and bases, reaction rates and equilibrium, organic chemistry, and nuclear chemistry.

**Major Course Goals:** Students will be able to: 1) follow written and verbal directions in a laboratory situation, 2) analyze data collected in laboratory work and draw conclusions from data collected, 3) understand the ideas and basic concepts of matter, 4) understand the concepts of chemistry in order to solve problems relating to chemical laws in a logical procedure, 5) solve problems using the factor-label method and significant figures.

**Evaluation:** Based on homework, laboratory reports, quizzes and tests.

**ENRICHED CHEMISTRY** (11-12) Prerequisite: Currently enrolled in Algebra II, Pre-Calculus, or Calculus, or teacher recommendation

Enriched Chemistry provides a self-motivated and academically enthusiastic student a highly intellectual approach to the study of chemistry. This course moves at an accelerated pace and has the same content as the initial 2/3 of a first year college chemistry course. Topics include, but are not limited to, stoichiometry, solutions, thermochemistry, quantum chemistry, periodicity, bonding, gas laws, phase changes and intermolecular forces, kinetics, equilibria, and acid/base chemistry. The ability to problem solve is emphasized. This is a block course only offered first semester. Enriched Chemistry is a prerequisite to AP Chemistry, which is a continuation of this course.

**Evaluation:** Based on tests, labs, and homework.

**AP CHEMISTRY** (11-12) Prerequisite: Completion of Enriched Chemistry

A continuation of Enriched Chemistry concentrating on the content contained in the final 1/3 of a first year college chemistry course. Topics include acid/base equilibria, thermodynamics, electrochemistry, nuclear chemistry, metals and nonmetals, and organic chemistry. This is a singleton course only offered during second semester. Both Enriched Chemistry and AP Chemistry must be completed to take the AP test.

**Evaluation:** Based on tests, labs, and homework.
**INTRO TO ORGANIC CHEMISTRY** (11-12) Prerequisite: One year or one full block of general chemistry

This elective course introduces some of the topics of carbon chemistry. In this course you will learn about the basic structure, naming, functions, and reactions of various classes of organic compounds. This one-semester course will review the importance of bonding and focus on alkanes and cycloalkanes, alkenes and alkynes, aromatic compounds, halogen compounds, etc. The course will also focus on the development of specific organic laboratory skills such as determining melting and boiling points and separation techniques. Throughout the course you will develop skills in critical thinking, analysis of consumer products, writing lab reports and proper and safe laboratory techniques. This course would be a valuable background for students planning on majoring in chemistry or another science at college or planning on going into a medically-related field such as medical technology, nursing, veterinary science, dentistry, or medicine.

**Evaluation:** Based on tests, labs, and homework.

**AP ENVIRONMENTAL SCIENCE I & II** (11-12) Prerequisites: Completion of Biology or AP Biology and Chemistry (Modern or Enriched), or enrolled in Chemistry

This is a college-level course for students with an interest in environmental science. We will study the interrelationships of the natural world, identify and analyze environmental problems (both natural and human created), and examine alternative solutions for resolving or preventing them. Topics include earth systems, energy, ecosystems, pollution, global environmental issues, and land and water use. This is a yearlong class. Lab work will be a key part of the class. This course will prepare students for the AP Environmental Science test in the spring.

**Evaluation:** Based on labs, projects, assignments and tests.

**PHYSICS I & II** (12) Prerequisite: Current enrollment in Algebra II or higher; current enrollment in Pre-Calculus is recommended

This yearlong course is for students intending to go to college but not necessarily major in physics or engineering. This course uses math every day; a graphing calculator is required. Students should expect a lab nearly every day. There is almost no memorization and note cards can be used on all tests. Students who pass the course go to Valley Fair in the spring.

**Major Course Goals:** Students will be able to: 1) accurately predict future movements of a particle or system of particles, 2) apply the laws of conservation of energy, 3) predict and describe the movements and interactions of a particle oscillating in simple harmonic motion with other particles, 4) apply principles of electric circuits, light, and magnetic induction to describe everyday technology. This class covers the same materials as Enriched Physics with more support at every opportunity.

**Evaluation:** Based on labs, homework, tests and projects.

**ENRICHED PHYSICS (calculus based)** (12) Prerequisites: Completion of or current enrollment in Calculus required, as well as Modern or AP Chemistry

This block first-semester course contains the same topics and labs as Physics. The topics are covered in greater depth and with less support than in Physics. Past students have described the course as follows: Physics is a challenging class that is actually worth the work. Play with sharp things. Make things that shoot things at other things and others. Consume one large tree. The sky's the limit, or the ground. Find your potential and your kinetic. Fall down, again and again and again, and then get up. Dizziness; learn how and why. Lift others in the air with only one hand, or shock them with one hand. Learn whole new sayings for SOHCAHTOA. Positives and negatives are not values, just perspectives. Expound your vocabulary with a plethora of superfluous “f-words.”

**Major Course Goals:** Same as Physics, just more challenging at every opportunity.

**Evaluation:** Based on labs, homework, and tests.

**AP PHYSICS (calculus based)** (12) Prerequisites: Completion of Enriched Physics and current enrollment in Calculus

This single-hour, second-semester course completes the first year of college physics for students intending to major in anything except physics or engineering, by continuing the Enriched Physics course. This course will review the entire Enriched Physics course topics at a higher level, and then cover the remaining topics found on the AP Physics test. All students go to Valley Fair in the spring.

**Major Course Goals:** Students will prepare to earn a 5 on the AP test in May. Additional topics include: 1) heat and kinetic theory, 2) quantum theory, 3) atomic and nuclear theory.

**Evaluation:** Based on labs, homework, tests, and projects.
SCIENCE, continued

3001 **ANATOMY AND PHYSIOLOGY** (11-12) Prerequisites: Biology or AP Biology, Modern Chemistry or AP Chemistry (Principles of Chemistry with teacher recommendation)

This course investigates the structure, function and chemistry of the human body. Emphasis is placed on the understanding of human systems. Extensive dissection (sheep heart, cat) occurs during quarter 2. Students are required to participate in dissections during this course. This is a challenging course designed for students planning on post-secondary education in a science-related field after high school.

**Major Course Goals:** Students will be able to describe and explain the structure and function of the major human body systems including: 1) integumentary, 2) skeletal, 3) muscular, 4) nervous, 5) endocrine, 6) cardiovascular, 7) lymphatic, 8) respiratory, 9) digestive, 10) urinary, 11) body biochemistry.

**Evaluation:** Based on tests, quizzes and lab work.

3002 **EARTH AND SPACE** (11-12)

This is a one-semester course. The class investigates the solar system, galaxy, quasars, pulsars, black holes and more by means of lecture/demonstrations, labs, and videos. If weather permits, two night labs will be included. Related topics in weather, geology, physics, and chemistry will also be covered as time permits.

**Major Course Goals:** Students will be able to: 1) cite data concerning planets of the solar system, the sun and other objects beyond the solar system, 2) explain observed phenomena, 3) explain current cosmological theories, 4) effectively use a telescope for astronomical observation, 5) follow directions given in order to complete a diagram, model or calculation that illustrates various physical concepts.

**Evaluation:** Based by means of a curve on the total points accumulated for the quarter. These points come from worksheets, projects, quizzes and tests.
SOCIAL STUDIES

Credit value follows in parentheses.

2700-2701 Human Geography I & II (2)  
2840-2841 Pre-AP Human Geography I & II (2)  
2702 U.S. History I (1)  
2703 U.S. History II (1)  
2800-2801 AP U.S. History I & II (2)  
2704 World History I (1)  
2705 World History II (1)  
2744-2745 AP World History I & II (2)  
2706 American Government (1)  
2707 Economics (1)  
2710 Economics (Blended) (1)*  
2846 AP United States Government and Politics (1)  
2847 AP Microeconomics (1)  
2848 AP Macroeconomics (1)  
2842 AP Human Geography (1)  
2708 Psychology (1)  
2802 AP Psychology (1)  
2711 Psychology (Blended) (1)*  
2709 World Religions (1)  

*See page 5 for blended course information.

Minnesota State Graduation Requirements for Social Studies:
8 credits (4 years of Social Studies)
- 9th grade: 2 credits Geography
- 10th grade: 2 credits U.S. History
- 11th grade: 2 credits World History
- 12th grade: 1 credit Economics; 1 credit Government

COURSE DESCRIPTIONS

NINTH GRADE

REQUIRED COURSES:

2700 HUMAN GEOGRAPHY I & II (9) (1 credit each)
This course uses both regional and topical approaches to meet Minnesota Academic Standards in Geography. Students will examine climate, landforms, resources, industries, agriculture, population and culture, among other topics.

Essential Outcomes: Students will: 1) identify, label, and synthesize information using maps, 2) use information to create maps, and use maps to analyze and compare information about countries, 3) compare and contrast cultures around the world, 4) understand the impact of cultural diffusion on countries, 5) identify and analyze the factors that influence population patterns, 6) understand the impact of political and economic systems on the people of the world.

Evaluation: Based on class assignments, notebooks, current events, projects, tests and class participation.

2840 PRE-AP HUMAN GEOGRAPHY I & II (9) (in place of Human Geography I & II) (1 credit each)
Prerequisite: Application, instructor approval, MAP reading scores will be considered for admission
Students will be reading an advanced level textbook covering a wide range of human geography themes. This course will help prepare students for the analytical thinking and rigor of AP courses in social studies.

Essential Outcomes: Students will: 1) identify, label, and synthesize information using maps, 2) use information to create maps, and use maps to analyze and compare information about countries, 3) compare and contrast cultures around the world, 4) understand the impact of cultural diffusion on countries, 5) identify and analyze the factors that influence population patterns, 6) understand the impact of political and economic systems on the people of the world.

Evaluation: Based on tests, assignments, projects, essays, current events and class participation.

TENTH GRADE

REQUIRED COURSES:

2702 U.S. HISTORY I (10) (1 credit)
This course in the history of the United States is divided into two parts, the first of which will cover the period of exploration through 1918.

Essential Outcomes: Students will be able to: 1) distinguish main ideas from supporting ideas through note taking and understand multiple types of texts, 2) express their historical understanding in writing, 3) use critical historical skills, such as perspective, cause and effect, as well as change and consistency over time.

Evaluation: Based on daily work, papers, projects, tests, quizzes and participation in class activities.

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SOCIAL STUDIES, continued

2703 U.S. HISTORY II (10) (1 credit)
The second portion will begin with the 1920s and reach the present day. See U.S. History I for information regarding essential outcomes and evaluation criteria.

2800 AP U.S. HISTORY I & II (10 – in place of U.S. History I & II) (1 credit each) Prerequisites: Application, recommendation from previous social studies and/or English teacher(s), and instructor approval
This single-period, yearlong course is designed to prepare students for the AP exam in United States history. Students will study, at a collegiate level, the political, economic, social, and cultural history of the United States.

Essential Outcomes: Students will: 1) read a college level text, 2) read historical narratives for understanding, 3) construct written responses to questions using historical evidence, 4) evaluate past decisions in United States history.

Evaluation: Based on required assignments, essays, and exams.

ELEVENTH GRADE

REQUIRED COURSES: (also see Elective Courses)

2704 WORLD HISTORY I (11) (1 credit)
This single-period, semester-long course offered in the first semester emphasizes the major powers, dramatic changes and influential ideas in World History from the organization of society through the late 1700s. Topics covered are: 1) Conventions of History and Prehistory, 2) Ancient Civilizations, 3) Ancient India and China, 4) Ancient Greece, 5) Ancient Rome, 6) Rise of Islam, Conflict and Contact with Europe, Middle Ages and the Crusades, 7) The Americas and the Age of European Exploration, and 8) Renaissance and Reformation.

Major Course Goals: At the end of the course students will be able to: 1) identify, describe and evaluate key events and ideas in World History, 2) explain how the World has changed over time politically, socially and culturally, 3) analyze how historical events were both unique to their historical context and influential on the present.

Evaluation: Based on class assignments, tests, quizzes, class participation, projects and papers.

2705 WORLD HISTORY II (11) (1 credit)
This single-period, semester-long course offered in the second semester emphasizes the major powers, dramatic changes and influential ideas in World History from the early Chinese and African civilizations to the modern era. Topics covered are: 1) Ages of Kings, 2) China, Japan and Korea, 3) Enlightenment and Revolution, 4) Africa and the Age of European Imperialism, 5) Europe After Napoleon, 6) World War I and the Russian Revolution, 7) The Interwar Period and the Rise of Nationalism, 8) World War II and the Holocaust, and 9) The Postwar World.

Major Course Goals: See World History I.

Evaluation: See World History I.

2744 AP WORLD HISTORY I & II (11 – in place of World History I and II) (1 credit each)
Prerequisite: Building application to Advanced Placement
This single-period, yearlong course is designed to prepare students to take the required Advanced Placement exam in World History. This course is taught at a college level and emphasizes reading, writing and discussion. The major focus will be on historical inquiry as studied through the following five themes: 1) interactions between humans and their environment, 2) development and interaction of cultures, 3) state building and conflict, 4) economic systems, 5) social structures. Major historical thinking skills: 1) crafting historical arguments from evidence, 2) chronological reasoning, 3) comparison and contextualization, 4) interpretation and synthesis.

Evaluation: Based on examinations, papers, projects, participation and other assignments.
**TWELFTH GRADE**

**REQUIRED COURSES: (also see Elective Courses)**

2706 **AMERICAN GOVERNMENT** (12) (1 credit)

This course emphasizes the foundations of American government and politics and the responsibilities of U.S. citizenship.

**Essential Outcomes:** In this course, students will: 1) describe fundamental Constitutional principles and analyze their continued importance in the political arena, 2) explain the scope and limits of rights protected by the Constitution, 3) analyze the purposes, organization, functions and processes of the three branches of government, 4) examine various forms of political participation that people use to affect public policy decisions and elections, 5) analyze how the United States political system is shaped by elections and the election process, including the caucus and primary systems and procedures involved in voting, 6) evaluate sources of information and various forms of political persuasion for validity, reliability and bias. Encouraging students to identify political issues, think reflectively about these issues, and apply this thinking to constructive action is a major course goal.

**Evaluation:** Based on classroom activities, tests, and completion of a course project.

2707 **ECONOMICS** (12) (1 credit)

This course begins with a study of how scarce resources are utilized to satisfy the economic wants of society. A major focus of the course is placed on the microeconomic models of supply and demand, the price system, and how consumers can make educated decisions regarding investing and the use of credit. Macroeconomic concepts covered deal with measuring the economic performance of the economy and analyzing policy decisions, which affect output and prices in the national economy. This course also recognizes the global nature of economics; students will examine the impact of international trade and international finance on national economies.

2710 **ECONOMICS (BLENDED)** (12) (1 credit) *Reliable internet access required outside of school*

This is an introductory economics class with units focusing on the economic way of thinking, measuring economic performance, personal finance, supply and demand, the United States economy, stabilization policies and international trade. Initially students will meet two to three times per week in the classroom (this may be adjusted to two times per week at teacher discretion). There will be significant work expected outside of class, including independent projects, participation in discussion boards, live chats, and lecture notes.

**Evaluation:** Based on online and in-class discussions, projects, formative assessments (teacher feedback will be given and assessment can be redone to demonstrate learning), and summative assessments (unit tests, final exam).

2846 **AP UNITED STATES GOVERNMENT AND POLITICS** (11-12 – in place of American Government) (1 credit) Prerequisites: Application and instructor approval

This one-semester, single-period course is designed to give students a critical perspective on politics and government. The course involves both the study of general concepts used to interpret United States politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up the American political reality. The reading assignments, projects, tests and pacing will be more similar to that of a college-level Introductory Political Science course than the corresponding high school course. The goal of the course is to prepare students to take the required Advanced Placement exam in U.S. Government and Politics.

**NOTE:** No student who has previously taken 2706 American Government may take AP United States Government and Politics.

2847 **AP MICROECONOMICS** (11-12 – in place of Economics) (1 credit) Prerequisites: Application and instructor approval

AP Microeconomics is the study of economics that applies to the functions of individual decision-makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. AP Microeconomics is offered first semester and satisfies the economics requirement for graduation.
**SOCIAL STUDIES, continued**

2848 AP MACROECONOMICS (11-12 – in place of Economics) (1 credit) Prerequisites: Application and instructor approval

AP Macroeconomics is the study of economics that applies to an economic system as a whole. This course places particular emphasis on the study of national income and price-level determination, measurement of economic performance, the financial sector, stabilization policies, economic growth, and international economics. It places emphasis on the different philosophies and theories associated with Macroeconomic analysis and policy. Students will also analyze the economic effects of international trade and globalization. AP Macroeconomics is offered second semester and satisfies the economics requirement for graduation, and also may be taken as an elective for those students who have taken AP Microeconomics first semester.

**ELEVENTH & TWELFTH GRADE**

**ELECTIVE COURSES:** These elective courses will be offered if enrollment is sufficient to hold the class. If enrollment in any course is too great and needs to be limited, 12th graders will receive priority of admittance.

2842 AP HUMAN GEOGRAPHY (11-12) (1 credit) Prerequisites: Application and instructor approval

An introductory college course in human geography. The purpose is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use and alteration of Earth’s surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. Students will take the required Advanced Placement examination in May.

2708 PSYCHOLOGY (11-12) (1 credit)

Psychology is the scientific study of behavior and mental processes. This course focuses on such topics as how psychological research is conducted, the study of personality, learning and memory, psychological disorders and treatment, and how social settings can influence behavior. The major course goal is for students to develop and demonstrate an understanding of human behavior that they can apply to real-life situations.

**Evaluation:** Based on daily work, unit projects, tests, quizzes and classroom contribution.

2802 AP PSYCHOLOGY (11-12) (1 credit) Prerequisites: Application and instructor approval

AP Psychology is a course which introduces students to the systematic and scientific study of human behavior and mental processes. Additionally, it prepares students to take the required Advanced Placement Psychology exam in May. Though it covers many of the same topics as Psychology, students should be prepared for a significantly more rigorous course. The reading load in particular is heavy. The major course goal is that the student develops a meaningful understanding of key concepts in the field of psychology and their relation to human behavior.

**Evaluation:** Based on performance on papers/projects, discussions and tests.

2711 PSYCHOLOGY (BLENDED) (11-12) (1 credit) *Reliable internet access required outside of school*

This is an introductory psychology class with units that focus on research methods, learning, memory, personality, social psychology, mental health, and mental illness. Initially students will meet three times per week in the classroom (this may be adjusted to two times per week at teacher discretion) and participate online to the equivalent of the other two days of class plus homework. There will be significant work expected outside of class, including, but not limited to: independent projects, participation in discussion boards, live chats, and lecture notes.

**Evaluation:** Based on online and in-class discussions, projects, formative assessments (teacher feedback will be given and assessment can be redone to demonstrate learning), and summative assessments (unit tests, final exam).

2709 WORLD RELIGIONS (11-12) (1 credit)

World Religions is an elective one-semester, single-period course designed to examine the religious traditions of Hinduism, Buddhism, Judaism, Christianity and Islam. Primary sources, speakers from the various traditions, and class discussions are used to explore questions common to human experience. These questions include such topics as the nature of humankind, the quest to understand that which is beyond, morality, functions served by religion, and the nature of religious belief itself.

**Major Course Goals:** Students will be able to: 1) recognize the commonality of the human quest for understanding and meaning, 2) develop greater sensitivity to and understanding of other religious traditions, 3) develop a method of studying belief systems.

**Evaluation:** Based on examinations, papers, projects, participation and other assignments.
SPECIAL EDUCATION

HIGH SCHOOL RESOURCE
0003 SKILLS SEMINAR A I & II Prerequisite: IEP team approval
0004 Students continue to develop task management systems and study skills. They learn strategies to identify and remember important information, complete longer assignments, and acquire the study skills necessary for more complicated learning. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

0005 SKILLS SEMINAR B I & II Prerequisite: IEP team approval
0006 Students continue to develop self awareness, conflict management, communication, and self-advocacy skills to be successful in a variety of settings. Stress management, task-management strategies, healthy lifestyles, motivation, goal-setting and problem-solving strategies are practiced. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

0047 SKILLS SEMINAR E I & II Prerequisite: IEP team approval
0048 This course gives adolescents an opportunity to learn new skills which will help them to gain control over their emotions and deal with situations that contribute to their emotionality. Students are taught to develop and utilize coping skills and stress-management techniques to reduce the educational impact of emotion regulation difficulties. They learn strategies to identify common event triggers, examine their beliefs and interpersonal interactions and implement effective problem-solving techniques. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

WORK EXPERIENCE
9035-9036 Employment Skills Seminar I & II
9037-9038 Work-Based Learning I & II (OJT)

HIGH SCHOOL DCD CENTER BASED
0011-0012 Core English I & II
0013-0014 Core Math I & II
0015-0016 Core Foods I & II
0017-0018 Core Transition I & II
0032-0033 Core Recreation and Leisure I & II
0034-0035 Core Vocational Skills I & II

HIGH SCHOOL EBD CENTER BASED
0038-0039 Mastery Strategies I & II
0042-0043 Mastery Skills Seminar A I & II
0045-0046 Mastery Skills Seminar B I & II
0040-0041 Mastery Skills Seminar E I & II
1016-1017 Mastery Reading I & II
1018-1019 Mastery Language Arts I & II
4034-4035 Mastery Math I & II

HIGH SCHOOL PHYSICAL EDUCATION
6010-6011 DAPE I & II

COURSE DESCRIPTIONS

HIGH SCHOOL RESOURCE
GUIDED STUDY 10-12 I & II  Prerequisite: IEP team approval
0539  Students will develop task management and study skills to independently complete classroom assignments. Students will practice the necessary skills to develop and execute a plan to utilize resources and staff support in order to maintain passing grades. Students will learn strategies that will assist them to remember important information, prioritize responsibilities, and manage the completion of long-term assignments and projects.

FOUNDATIONS LANGUAGE ARTS I & II  Prerequisite: IEP team approval
1620  Students work on basic reading, listening, speaking and writing with an emphasis on developing complete sentences and paragraphs. Grammar, spelling, and structure are also emphasized as students learn written language skills for functional use, as well as success in school assignments.

STANDARDS LANGUAGE ARTS I & II  Prerequisite: IEP team approval
1624  Students develop their communication skills through reading, listening, speaking and writing. They learn to develop their ideas by responding to a variety of writing assignments and by increasing the length of their written work. Students also read and respond to a variety of literature including fiction and nonfiction.

CONTENT LANGUAGE ARTS I & II  Prerequisite: IEP team approval
1622  Students will learn functional vocabulary, word identification, fluency, comprehension skills and writing application for content writing. Students will learn reading strategies to comprehend a variety of reading assignments found in high school level standard curriculum. The objective of the Content Language Arts (CLA) class is to teach reading strategies. Students with reading comprehension goals on their IEP that have a history of struggling in regular education classes that require a lot of reading should be enrolled in this course.

MATH STANDARDS A1 I & II (Developing Number Sense)
4610  Semester 1: Students in this course are building basic skills required to enter Algebra. The sequence of Standards A covers the following concepts: Place Value, Whole Numbers, Operations, Multiples and Estimation.
Topics covered in building Number Concepts:  Addition, Subtraction, Multiplication, Division.
Topics covered in Problem Solving:  Working with data, introduction to measurement, measuring two dimensional objects.
Semester 2: Students in this course are building basic skills required to enter Algebra. The sequence of Standards AA covers the following concepts: Fractions, Multi-step Problems, Mean, Median, Range, Measurement and Factors.
Topics covered in building Number Concepts:  Factors, Primes, Composites, Common Factors and Number Patterns, Common Multiples, Concept of Fractions, Adding and Subtracting Fractions.

MATH STANDARDS AA1 I & II
4620  This course is the second half of 4610-4611 Math Standards A1 I & II. Please refer to the 4610-4611 course description.

MATH STANDARDS B1 I & II (Making Sense of Rational Numbers)
4810  Students in this course have mastered the basic algebraic skills such as multiplication, estimation, fractions (+/-), and measurement. Students in this course are developing skills in the areas of multiplication/division of fractions, working with mixed numbers, decimals (concept and operations), percentages and exponents. The sequence of Standards B covers the following concepts: Fractions, Decimal Numbers, Percentages and Exponents.
SPECIAL EDUCATION, continued

MATH STANDARDS BB1 I & II (Making Sense of Rational Numbers)
Students in this course have mastered skills covered in Standards B. Students in this course have mastered skills in the areas of percentages, data and statistics, and probability. Students in this course are developing skills in percentages of fractions and decimals, scientific notation, integers, and operation of integers. The sequence of Standards B covers the following concepts: Negative Numbers, Estimation, Data and Statistics, Two-Dimensional Geometry and Probability.


MATH STANDARDS C1 I & II (Understanding Algebraic Expressions)
Semester 1: Students in this course have mastered skills covered in Standards A and B. Students in this course are developing skills in coordinate graphs and ratios. The Sequence of Standards C covers the following concepts: Properties, Simple Algebraic Expressions, Inequalities, Coordinate Graph and Ration and Proportion.

Topics covered in building Number Concepts: Fractions and Decimal Numbers, Variables, Inequalities, Algebraic Patterns, and Algebraic Expressions.


Semester 2: Students in this course have mastered skills covered in Standards C. Students in this course are developing skills in proportion and square roots. The sequence of Standards CC covers the following concepts: Functions, Square Roots, Irrational Numbers, Estimation, Slope and Three-Dimensional Geometry.


MATH STANDARDS CC1 I & II
This course is the second half of 4616-4617 Math Standards C1 I & II. Please refer to the 4616-4617 course description.

ALGEBRA STANDARDS I & II (Inside Algebra)
Students in this course have mastered skills covered in Standards CC.

Topics in building Number Concepts: Students in this course are developing skills in Order of Operations, Algebraic rules and properties, Algebraic expressions, Algebraic Equations, Graphing, Functions, and tables.

Topics covered in Problem Solving: Volume of three-dimensional shapes, Percents of a Number, Positive and Negative Numbers, Angle measurement, lines, Algebraic Equations and Expressions, and functions.

Students in this course will be able to multiply and divide decimals, fractions and mixed numbers; solve real-world and mathematical problems using arithmetic with positive rational numbers. Students will also understand the process of Order of Operations. Students in this course will develop skills in order to solve one and two step equations. Students will also be able to recognize and represent relationships between varying quantities; translate from one representation to another; use patterns, tables, graphs and rules to solve real-world and mathematical problems. They will also understand common factors of numbers, the distributive property, and how to factor quadratic equations. Students will become familiar with the Pythagorean theorem, and quadratic and exponential functions.

HIGH SCHOOL AUTISM

LIFE SKILLS C I & II Prerequisite: IEP team approval
In this class students learn the skills necessary for school success in the areas of organization, task management, and study skills. Additional emphasis is on the application of these skills as they apply to life after high school and the community beyond school.

SKILLS SEMINAR C I & II Prerequisite: IEP team approval
Students continue to develop and practice skills in social communication, and interacting with peers and adults. Also taught are skills in self-awareness including the understanding of individual strengths and challenges and the ability to advocate for themselves in future adult environments.
WORK EXPERIENCE

9035 EMPLOYMENT SKILLS SEMINAR I & II (10-12) For Transition students only
9036 In the Employment Skills Seminar students learn about the world of work. Topics taught include developing employability skills, on-the-job safety, career awareness, problem-solving on the job, and developing a lifework plan. A referral process is used for this program with recommendations made by a parent, school counselor, case manager or the work experience coordinator. This class may be associated with Work-Based Learning (OJT). Students earn 1 credit per semester.

9037 WORK-BASED LEARNING I & II (OJT) (10-12)
9038 In the Work-Based Learning component, students apply skills learned in the seminar class in competitive or volunteer, in-school, or community work settings. A referral process is used with recommendations made by a parent, school counselor, case manager or the work experience coordinator. Students may earn up to 2 credits per semester.

HIGH SCHOOL DCD CENTER BASED

0011 CORE ENGLISH I & II Prerequisite: IEP team approval
0012 Students develop their reading and writing skills with an emphasis on the application of those skills necessary for their adult life. Students will use a wide variety of real-life and traditional reading materials individually selected for students’ skill levels. Emphasis is on comprehending material read and developing meaningful writing to communicate necessary information to others.

0013 CORE MATH I & II Prerequisite: IEP team approval
0014 Students continue to develop their basic computation skills and their relationship to using math in their future adult life. Skills in understanding money and budgeting time and schedules, measurement as well as the problem solving necessary to apply math skills to learn to real-life situations.

0015 CORE FOODS I & II Prerequisite: IEP team approval
0016 Students learn the skills in basic food preparation, meal and menu planning and grocery shopping necessary to support themselves as independently as possible in their future.

0017 CORE TRANSITION I & II Prerequisite: IEP team approval
0018 In this class, students learn to apply the skills previously learned to areas of home living, community participation and leisure and recreation. Emphasis is on understanding community resources, such as stores, services and environments necessary to live as independently as possible upon completion of school.

0032 CORE RECREATION AND LEISURE I & II Prerequisite: IEP team approval
0033 In this class students learn the skills necessary to select healthy and engaging activities in their free time in and out of school. Students are exposed to a wide variety of leisure activities with emphasis on both solitary and socially interactive activities.

0034 CORE VOCATIONAL SKILLS I & II Prerequisite: IEP team approval
0035 Students in these classes participate in either school or community vocational training settings to develop the skills necessary for future supported or competitive employment. Work skills, habits and attitudes are developed as well as attending to the work tasks and production rate and accuracy.

HIGH SCHOOL EBD CENTER BASED

0038 MASTERY STRATEGIES I & II Prerequisite: IEP team approval
0039 Students learn self-advocacy skills and strategies to be successful in a high school setting. Organizational skills and study skills are developed to manage high school level assignments. Students also learn the importance of understanding the discipline policy and the consequences of inappropriate behavior. Self-advocacy is supported by learning about the various resources available in the school and how to access assistance with school and social concerns. Students also learn communication skills in order to facilitate meetings with parents and teachers by identifying personal strengths, needs, useful modifications and goals.
SPECIAL EDUCATION, continued

0042 MASTERY SKILLS SEMINAR A I & II Prerequisite: IEP team approval
0043 Students continue to develop task management systems and study skills. They learn strategies to identify and remember important information, complete longer assignments, and acquire the study skills necessary for more complicated learning. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

0045 MASTERY SKILLS SEMINAR B I & II Prerequisite: IEP team approval
0046 Students continue to develop self awareness, conflict management, communication, and self-advocacy skills to be successful in a variety of settings. Stress management, task-management strategies, healthy lifestyles, motivation, goal-setting and problem-solving strategies are practiced. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

0040 MASTERY SKILLS SEMINAR E - I & II Prerequisite: IEP team approval
0041 This course will give adolescents an opportunity to learn new skills which will help them to gain control over their emotions and deal with situations that contribute to their emotionality. Students are taught to develop and utilize coping skills and stress management techniques to reduce the educational impact of emotion regulation difficulties. They learn strategies to identify common event triggers, examine their beliefs and interpersonal interactions, and implement effective problem-solving techniques. Students also identify important transition goals to prepare for successful outcomes in employment, home, and community settings after graduation.

1016 MASTERY READING I & II Prerequisite: IEP team approval
1017 This multilevel course will provide differentiated materials based on individual student special education needs. Students learn phonetic skills, sight words, functional vocabulary, word identification, fluency, and comprehension skills. Students may also continue to develop reading strategies to comprehend a variety of written materials found in high school level assignments. The functional materials that may be utilized include the use of recipes, directions, maps, and newspapers as well as fiction and nonfiction materials.

1018 MASTERY LANGUAGE ARTS I & II Prerequisite: IEP team approval
1019 This multilevel course will provide differentiated materials based on individual student special education needs. Students may work on skills ranging from basic reading, listening, speaking and writing to more complex communication skills. This course focuses on skill development ranging from writing complete sentences and paragraphs to more complex narrative reports. Grammar, spelling, and structure may also be emphasized as students learn the written language skills required to be successful in the classroom.

4034 MASTERY MATH I & II Prerequisite: IEP team approval
4035 This multilevel course will provide differentiated materials based on individual student special education needs. Students learn skills ranging from foundational to complex skills in the areas of: numeration, whole numbers, fractions, decimals, ratios, proportions, percents, measurements, number theory, rational numbers, integers, exponents, radicals, equations, geometry, graphing data, introductory statistics and probability. These skills will be applied to real life situations.

HIGH SCHOOL PHYSICAL EDUCATION

6010 DAPE I & II
6011 This course is for students who require adaptive physical education through an Individual Education Program (IEP) plan.

**Major Course Goals:** Students will be able to: 1) demonstrate kinesthetic awareness through movement exploration and progressive improvement in physical fitness and skills, 2) practice fundamentals of good sportsmanship, safety, hygiene and personal health habits, and spectator skills, 3) enjoy a variety of competitive programs and activities, identify recreational interests and make sound decisions concerning recreational participation, 4) develop an awareness of the principles of proper body maintenance and demonstrate knowledge of the principles of proper nutrition, 5) demonstrate knowledge of the basic rules, etiquette and strategies necessary to participate in physical education, competitive and recreational activities.

**Evaluation:** Seventy-five (75) percent of the grade will be based on participation, attendance and skills. Twenty-five (25) percent will be based on knowledge.
SUPPORT COURSES

APPROACHES TO LEARNING

The following course is available to ninth grade students who need support in their high school courses. Standardized test scores, course grades, and counselor recommendation will be used to place students in the appropriate course(s).

0118 APPROACHES TO LEARNING I & II (elective course for ninth grade) (2 credits)

0119 This course supports students enrolled in their grade-level English and math courses who are not proficient in math and reading. Students read and respond to a wide variety of fiction and some selections of nonfiction. Learning emphasis is placed on writing, asking questions and responding to questions. The main math topics covered include working with polynomials, solving first- and second-degree equations, solving first-degree inequalities, factoring polynomials, working with irrational numbers and algebraic fractions. In addition to English and math support, students engage in a weekly small group session with an adult mentor to set academic goals, monitor progress, and develop communication skills.

**Major Course Goals:** For students to reach proficiency in math and reading.

**Evaluation:** Student learning will be evaluated on written assignments, group problem solving, and student reflections. MAP testing will be used to assess progress on content standards in English and math.

The following course is available to tenth grade students who need additional time and support in their high school math and English courses. Standardized test scores, course grades, and counselor recommendation will be used to place students in this course(s).

0120 APPROACHES TO LEARNING I & II (elective course for tenth grade) (2 credits)

0121 This course supports students enrolled in their grade-level English and math courses who are not proficient in math and reading. Students read and respond to a variety of fiction and nonfiction. Learning emphasis is placed on writing, asking questions and responding to questions. The main math topics covered include working with shapes, congruency, similarity, and two- and three-dimension area and volume. In addition to English and math support, students engage in a weekly small group session with an adult mentor to set academic goals, monitor progress, and develop communication skills.

**Major Course Goals:** For students to reach proficiency in math and reading.

**Evaluation:** Student learning will be evaluated on written assignments, group problem solving, and student reflections. MAP testing will be used to assess progress on content standards in English and math.

SPECIAL EDUCATION AND ENGLISH LEARNERS (EL) COURSES

Please refer to specific departments for courses offered.
ARMSTRONG ALTERNATIVE PROGRAM
“A” SCHOOL

“A” School is a program for students in grades 11-12 who are experiencing difficulty with the traditional school model and would benefit from an alternative learning environment. Most students are behind in credits toward graduation.

“A” School is a student-choice, three-semester (maximum) program located within Robbinsdale Armstrong High School. The program offers flexible scheduling and opportunities to earn credits in science, social studies, English, mathematics, as well as elective courses. Students may pursue afternoon options in main school classes or work experience.

“A” School provides opportunities for personal and academic support as well as close monitoring of student attendance and academic progress. Students receive immediate interventions that promote positive changes in behavior and achievement.

“A” School staff base selection of students on a completed application, a one-on-one interview, and feedback from Armstrong staff members. Interested students should visit the “A” School staff in room 357 or contact their guidance counselor.

HONORS MENTOR CONNECTION

Honors Mentor Connection is a challenging learning program designed to meet the needs of students who have demonstrated exceptional academic talent and are committed to pursuing their expertise to a higher level. Honors Mentor Connection provides individualized opportunities for advanced learning and the development of an early professional reputation. Students are selected from high schools throughout Hennepin County. In Honors Mentor Connection students have dual learning experience. Thirty-five seminars throughout the year bring the metro-wide group of students together and uniquely prepare them for the rigor of future undergraduate/graduate studies as well as their mentor site experience. Eighty percent of the student’s time is spent at the mentor site in pursuit of advanced learning in a unique specialty. Each student is matched with an eminent professional who guides that experience.

Students can pursue standards for Scholars of Distinction as well as other standards that apply to their learning area. Each student’s learning program is uniquely shaped to the student’s goals. Honors Mentor Connection coordinators work to match individual student goals with the standards. Honors Mentor Connection is equivalent to double course credit and appears on the student’s high school transcript. It is offered to our students through Intermediate District 287 Gifted Education Services.

Website: www.district287.org/gifted

Application information is available in the guidance office for sophomores and juniors who are interested in this program.

NONDISCRIMINATION INFORMATION

District 281 does not discriminate on the basis of race, color, national origin, sex or handicap in admission, treatment or access to its programs and activities, or in employment in its programs and activities. The district has designated two individuals to coordinate efforts to comply with federal laws and regulations.

The district’s designated coordinator under Title IX of the Educational Amendments of 1972 (nondiscrimination on the basis of sex in educational programs and activities, including employment and admission) is responsible for coordinating district efforts to comply with Title IX, including investigation of complaints alleging noncompliance or alleging any actions prohibited by Title IX.

The district’s designated coordinator under Section 504 of the Rehabilitation Act of 1973 (nondiscrimination on the basis of handicap including admission, treatment or access to programs and activities, including employment in its programs or activities) is responsible for coordinating district efforts to comply with Section 504.

Inquiries concerning Title IX and Section 504 may be directed to Independent School District 281, 4148 Winnetka Avenue North, New Hope, Minnesota 55427-1288, phone number (763) 504-8000.